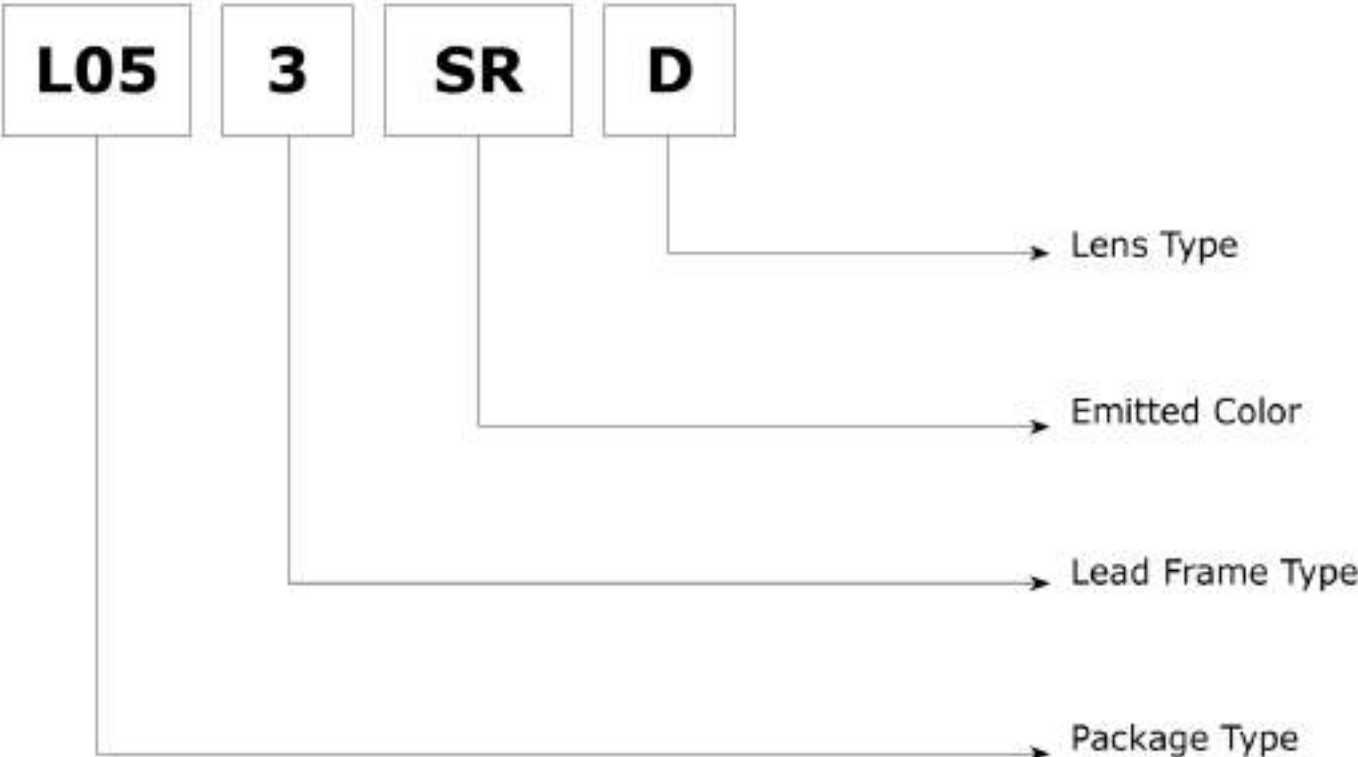




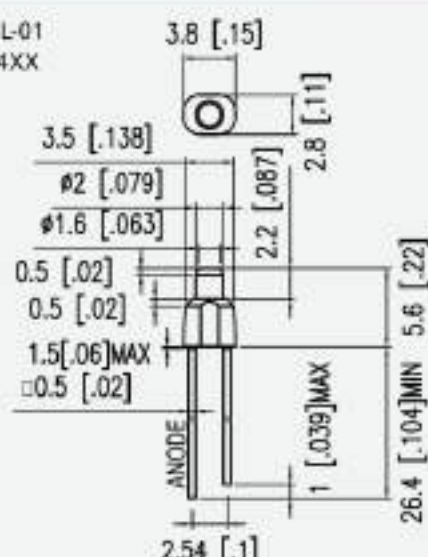
raytron  
レイترون株式会社

砲弾型LED  
カタログ

LED LAMPS PART NUMBER SYSTEM



| Package Size                                                                                             | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                          |             | Material     | λD (nm) | Emitted Color |                 | VF (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                          |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>1.6 mm Tower Type | L214PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 35       | 50   | 90                         | L-01         |
|                                                                                                          |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                          | L214MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 20       | 25   | 90                         |              |
|                                                                                                          | L214SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 45   | 90                         |              |
|                                                                                                          | L214YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 10       | 15   | 90                         |              |
|                                                                                                          | L214BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 18   | 90                         |              |
|                                                                                                          | L214AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 20       | 25   | 90                         |              |
|                                                                                                          | L214SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 80       | 100  | 90                         |              |

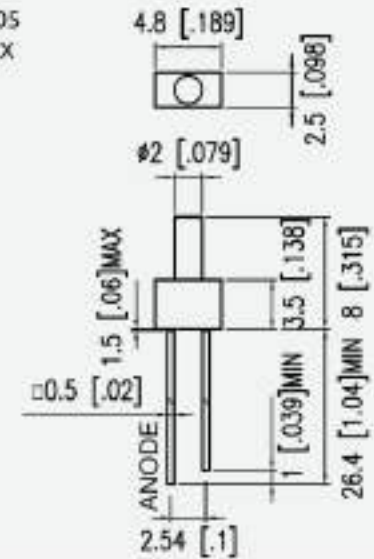
| Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")                                                        |  |  |
|-----------------------------------------------------------------------------------------------------------------|--|--|
| <p>Fig. L-01<br/>L214XX</p>  |  |  |

| Package Size                                                                                             | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                          |             | Material     | λD (nm) | Emitted Color |                 | VF (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                          |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>1.8 mm Tower Type   | L9104PURD   | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 40       | 55   | 76                         | L-03         |
|                                                                                                          |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                          | L9104MD     | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 25       | 30   | 76                         |              |
|                                                                                                          | L9104SGD    | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 54   | 76                         |              |
|                                                                                                          | L9104YD     | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 12       | 18   | 76                         |              |
|                                                                                                          | L9104BD     | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 15       | 20   | 76                         |              |
|                                                                                                          | L9104AD     | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 25       | 30   | 76                         |              |
|                                                                                                          | L9104SBLD   | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 85       | 120  | 76                         |              |
| <br>2.0 mm Tower Type | L924PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 40       | 55   | 70                         | L-04         |
|                                                                                                          |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                          | L924MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 25       | 30   | 70                         |              |
|                                                                                                          | L924SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 54   | 70                         |              |
|                                                                                                          | L924YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 12       | 18   | 70                         |              |
|                                                                                                          | L924BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 15       | 20   | 70                         |              |
|                                                                                                          | L924AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 25       | 30   | 70                         |              |
|                                                                                                          | L924SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 85       | 120  | 70                         |              |
| <br>2.0 mm Tower Type | L023PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 30       | 45   | 100                        | L-05         |
|                                                                                                          |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                          | L023MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 18       | 22   | 100                        |              |
|                                                                                                          | L023SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 24       | 36   | 100                        |              |
|                                                                                                          | L023YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 8        | 12   | 100                        |              |
|                                                                                                          | L023BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 15   | 100                        |              |
|                                                                                                          | L023AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 18       | 22   | 100                        |              |
|                                                                                                          | L023SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 60       | 80   | 100                        |              |

## Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-03  
L9104XX

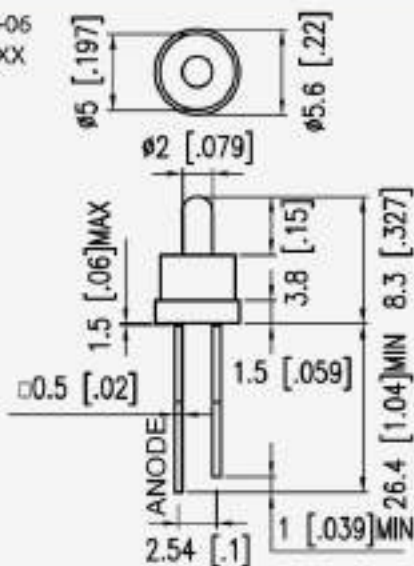
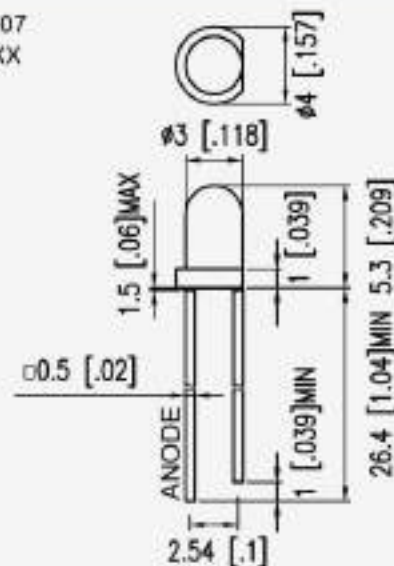
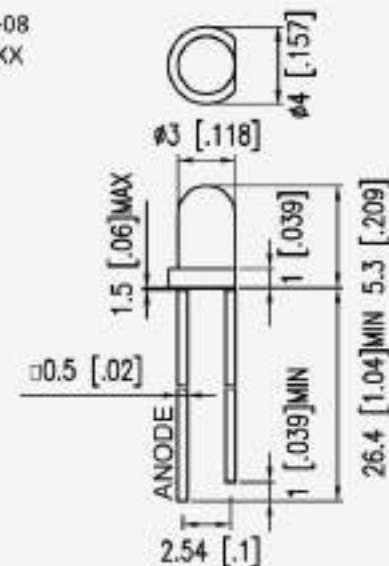
Fig. L-04  
L924XX

Fig. L-05  
L023XX




| Package Size                                                                                                       | Part Number | Chip         |         |               | Lens Color         | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|--------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|--------------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                    |             | Material     | λD (nm) | Emitted Color |                    | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                    |             |              |         |               |                    | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>2.0 mm Tower Type             | L223PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused       | 1.9                                           | 2.4  | 40       | 55   | 76                         | L-06         |
|                                                                                                                    |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                    | L223MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused       | 2.0                                           | 2.6  | 25       | 30   | 76                         |              |
|                                                                                                                    | L223SGD     | AlInGaP      | 570     | Super Green   | Green Diffused     | 2.2                                           | 2.6  | 36       | 54   | 76                         |              |
|                                                                                                                    | L223YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused    | 2.0                                           | 2.6  | 12       | 18   | 76                         |              |
|                                                                                                                    | L223BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused     | 2.0                                           | 2.6  | 15       | 20   | 76                         |              |
|                                                                                                                    | L223AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused    | 2.0                                           | 2.6  | 25       | 30   | 76                         |              |
|                                                                                                                    | L223SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused      | 3.1                                           | 3.6  | 85       | 120  | 76                         |              |
| <br>3mm Round, T-1 Wide Angle   | L034PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused       | 1.9                                           | 2.4  | 80       | 100  | 70                         | L-07         |
|                                                                                                                    |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                    | L034MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused       | 2.0                                           | 2.6  | 30       | 40   | 70                         |              |
|                                                                                                                    | L034SGD     | AlInGaP      | 570     | Super Green   | Green Diffused     | 2.2                                           | 2.6  | 84       | 105  | 70                         |              |
|                                                                                                                    | L034YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused    | 2.0                                           | 2.6  | 25       | 30   | 70                         |              |
|                                                                                                                    | L034BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused     | 2.0                                           | 2.6  | 28       | 35   | 70                         |              |
|                                                                                                                    | L034AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused    | 2.0                                           | 2.6  | 30       | 40   | 70                         |              |
|                                                                                                                    | L034SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused      | 3.1                                           | 3.6  | 250      | 400  | 70                         |              |
| <br>3mm Round, T-1 Narrow Angle | L034PURT    | AlInGaP      | 637     | Ultra Red     | Red Transparent    | 1.9                                           | 2.4  | 250      | 400  | 36                         | L-08         |
|                                                                                                                    |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                    | L034MT      | GaAsP on GaP | 625     | Orange Red    | Red Transparent    | 2.0                                           | 2.6  | 90       | 140  | 36                         |              |
|                                                                                                                    | L034SGT     | AlInGaP      | 570     | Super Green   | Green Transparent  | 2.2                                           | 2.6  | 240      | 360  | 36                         |              |
|                                                                                                                    | L034YT      | GaAsP on GaP | 590     | Yellow        | Yellow Transparent | 2.0                                           | 2.6  | 80       | 120  | 36                         |              |
|                                                                                                                    | L034BT      | GaAsP on GaP | 605     | Amber         | Amber Transparent  | 2.0                                           | 2.6  | 80       | 130  | 36                         |              |
|                                                                                                                    | L034AT      | GaAsP on GaP | 625     | Orange Red    | Orange Transparent | 2.0                                           | 2.6  | 90       | 140  | 36                         |              |
|                                                                                                                    | L034SBLT    | InGaN        | 465     | Super Blue    | Blue Transparent   | 3.1                                           | 3.6  | 1500     | 2000 | 36                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-06  
L223XX

Fig. L-07  
L034XX

Fig. L-08  
L034XX






3mm Round, T-1  
4.2mm Height

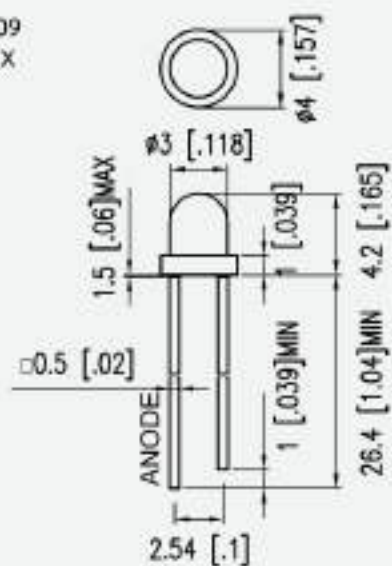


2.9mm Round, T-1  
4.5mm Height Small Flange



3mm Round, T-1  
Flangeless

Package Dimensions unit : mm Tolerance :  $\pm 0.25\text{mm}(0.01")$

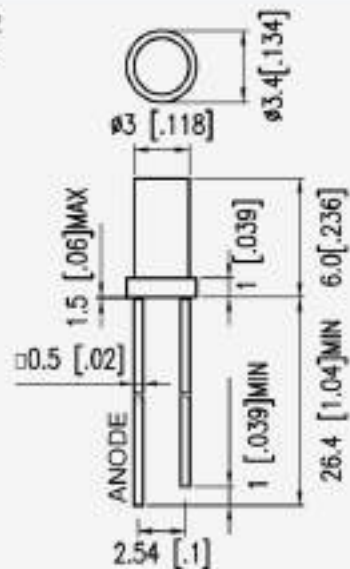
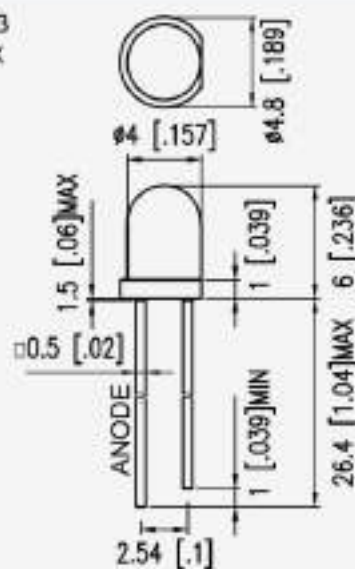
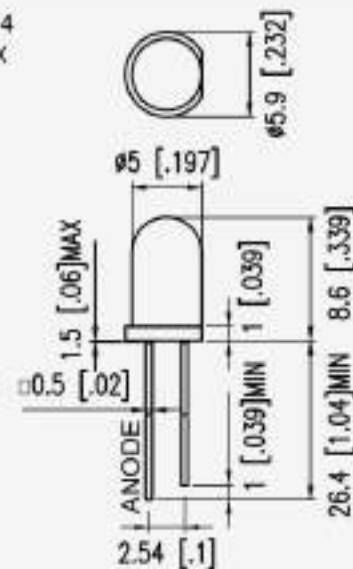


Technical drawing of a mechanical part. The drawing includes a side view and a cross-sectional view. The side view shows a rectangular part with a rounded top. Dimensions include a total length of 26.4 [1.04] MIN 5 [1.97], a width of 2.54 [1], a height of 1.5 [.06] MAX, and a thickness of 0.5 [.02]. The cross-sectional view shows a circular hole with a diameter of 3 [.118] and a depth of 1 [.039] MIN. The word "ANODE" is written vertically on the left side of the part.



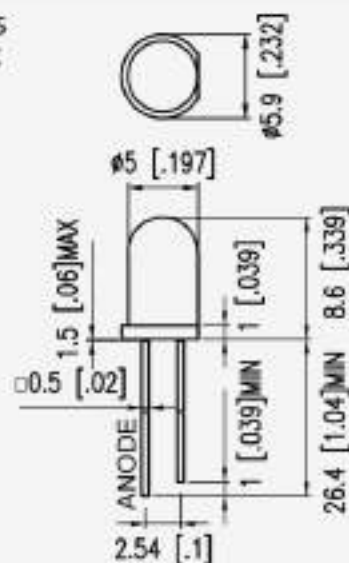
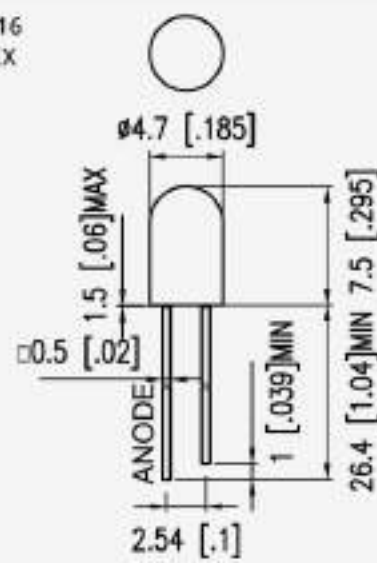
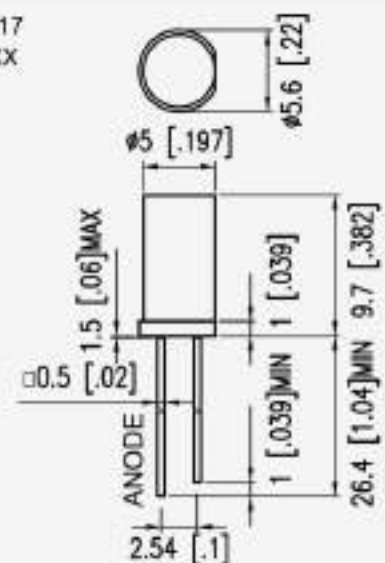
| Package Size                                                                                                         | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                      |             | Material     | λD (nm) | Emitted Color |                 | VF (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                      |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>3mm Cylindrical                 | L284PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 30       | 45   | 100                        | L-12         |
|                                                                                                                      |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                      | L284MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 18       | 22   | 100                        |              |
|                                                                                                                      | L284SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 24       | 36   | 100                        |              |
|                                                                                                                      | L284YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 8        | 12   | 100                        |              |
|                                                                                                                      | L284BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 15   | 100                        |              |
|                                                                                                                      | L284AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 18       | 22   | 100                        |              |
|                                                                                                                      | L284SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 60       | 80   | 100                        |              |
| <br>4mm Round                     | L043PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 80       | 120  | 60                         | L-13         |
|                                                                                                                      |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                      | L043MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 30       | 35   | 60                         |              |
|                                                                                                                      | L043SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 75       | 90   | 60                         |              |
|                                                                                                                      | L043YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 20       | 25   | 60                         |              |
|                                                                                                                      | L043BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 30       | 35   | 60                         |              |
|                                                                                                                      | L043AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 30       | 35   | 60                         |              |
|                                                                                                                      | L043SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 210  | 60                         |              |
| <br>5mm Round, T-1 3/4 Wide Angle | L053PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 75       | 100  | 45                         | L-14         |
|                                                                                                                      |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                      | L053MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 45       | 60   | 45                         |              |
|                                                                                                                      | L053SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 120      | 150  | 45                         |              |
|                                                                                                                      | L053YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 35       | 50   | 45                         |              |
|                                                                                                                      | L053BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 35       | 50   | 45                         |              |
|                                                                                                                      | L053AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 45       | 60   | 45                         |              |
|                                                                                                                      | L053SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 260  | 45                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-12  
L284XX

Fig. L-13  
L043XX

Fig. L-14  
L053XX


| Package Size                                                                                                     | Part Number | Chip         |         |               | Lens Color         | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|--------------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                  |             | Material     | λD (nm) | Emitted Color |                    | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                  |             |              |         |               |                    | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>5mm Round, T-1 Narrow Angle | L053PURT    | AlInGaP      | 637     | Ultra Red     | Red Transparent    | 1.9                                           | 2.4  | 650      | 1200 | 16                         | L-15         |
|                                                                                                                  |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                  | L053MT      | GaAsP on GaP | 625     | Orange Red    | Red Transparent    | 2.0                                           | 2.6  | 85       | 120  | 16                         |              |
|                                                                                                                  | L053SGT     | AlInGaP      | 570     | Super Green   | Green Transparent  | 2.2                                           | 2.6  | 240      | 300  | 16                         |              |
|                                                                                                                  | L053YT      | GaAsP on GaP | 590     | Yellow        | Yellow Transparent | 2.0                                           | 2.6  | 70       | 100  | 16                         |              |
|                                                                                                                  | L053BT      | GaAsP on GaP | 605     | Amber         | Amber Transparent  | 2.0                                           | 2.6  | 70       | 100  | 16                         |              |
|                                                                                                                  | L053AT      | GaAsP on GaP | 625     | Orange Red    | Orange Transparent | 2.0                                           | 2.6  | 85       | 120  | 16                         |              |
|                                                                                                                  | L053SBLT    | InGaN        | 465     | Super Blue    | Blue Transparent   | 3.1                                           | 3.6  | 1500     | 2500 | 16                         |              |
| <br>4.7 mm Round Flangeless   | L383PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused       | 1.9                                           | 2.4  | 80       | 120  | 45                         | L-16         |
|                                                                                                                  |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                  | L383MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused       | 2.0                                           | 2.6  | 30       | 35   | 45                         |              |
|                                                                                                                  | L383SGD     | AlInGaP      | 570     | Super Green   | Green Diffused     | 2.2                                           | 2.6  | 75       | 90   | 45                         |              |
|                                                                                                                  | L383YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused    | 2.0                                           | 2.6  | 20       | 25   | 45                         |              |
|                                                                                                                  | L383BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused     | 2.0                                           | 2.6  | 30       | 35   | 45                         |              |
|                                                                                                                  | L383AD      | GaAsP on GaP | 465     | Orange Red    | Orange Diffused    | 2.0                                           | 2.6  | 30       | 35   | 45                         |              |
|                                                                                                                  | L383SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused      | 3.1                                           | 3.6  | 150      | 210  | 45                         |              |
| <br>5mm Cylindrical           | L443PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused       | 1.9                                           | 2.4  | 25       | 40   | 120                        | L-17         |
|                                                                                                                  |             |              |         |               |                    |                                               |      |          |      |                            |              |
|                                                                                                                  | L443MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused       | 2.0                                           | 2.6  | 12       | 18   | 120                        |              |
|                                                                                                                  | L443SGD     | AlInGaP      | 570     | Super Green   | Green Diffused     | 2.2                                           | 2.6  | 30       | 45   | 120                        |              |
|                                                                                                                  | L443YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused    | 2.0                                           | 2.6  | 10       | 15   | 120                        |              |
|                                                                                                                  | L443BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused     | 2.0                                           | 2.6  | 12       | 18   | 120                        |              |
|                                                                                                                  | L443AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused    | 2.0                                           | 2.6  | 12       | 18   | 120                        |              |
|                                                                                                                  | L443SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused      | 3.1                                           | 3.6  | 150      | 250  | 120                        |              |

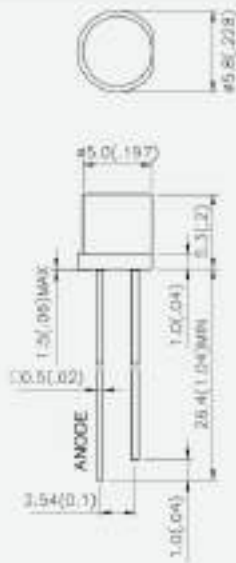
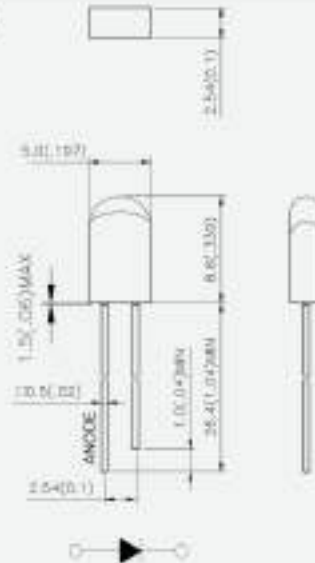
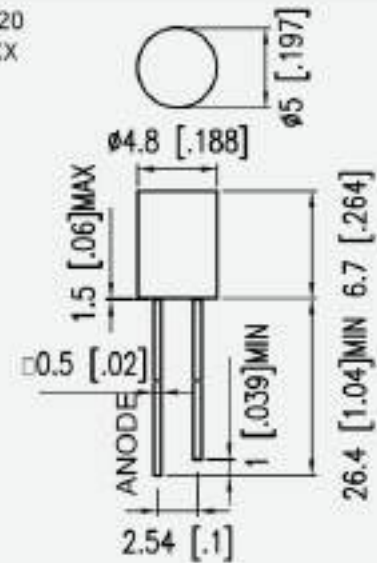
Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-15  
L053XX

Fig. L-16  
L383XX

Fig. L-17  
L443XX




| Package Size                                                                                                        | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|---------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                     |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                     |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>4.6mm Cylindrical              | L4203PURD   | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 25       | 40   | 140                        | L-18         |
|                                                                                                                     |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                     | L4203MD     | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 18   | 140                        |              |
|                                                                                                                     | L4203SGD    | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 45   | 140                        |              |
|                                                                                                                     | L4203YD     | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 10       | 15   | 140                        |              |
|                                                                                                                     | L4203BD     | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 18   | 140                        |              |
|                                                                                                                     | L4203AD     | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 18   | 140                        |              |
|                                                                                                                     | L4203SBLD   | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 250  | 140                        |              |
| <br>4.6mm x 5.0mm Tombstone      | L413PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 80       | 120  | 65                         | L-19         |
|                                                                                                                     |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                     | L413MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 30       | 35   | 65                         |              |
|                                                                                                                     | L413SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 75       | 90   | 65                         |              |
|                                                                                                                     | L413YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 20       | 25   | 65                         |              |
|                                                                                                                     | L413BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 30       | 35   | 65                         |              |
|                                                                                                                     | L413AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 30       | 35   | 65                         |              |
|                                                                                                                     | L413SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 210  | 65                         |              |
| <br>5.0mm Cylindrical Flangeless | L433PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 25       | 40   | 130                        | L-20         |
|                                                                                                                     |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                     | L433MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 18   | 130                        |              |
|                                                                                                                     | L433SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 45   | 130                        |              |
|                                                                                                                     | L433YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 10       | 15   | 130                        |              |
|                                                                                                                     | L433BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 18   | 130                        |              |
|                                                                                                                     | L433AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 18   | 130                        |              |
|                                                                                                                     | L433SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 250  | 130                        |              |

## Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-18  
L4203XX

Fig. L-19  
L413XX

Fig. L-20  
L433XX




| Package Size                                                                                                                | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|-----------------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                             |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                             |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>4.0mm x 5.0mm Rectangular              | L233PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 20       | 25   | 120                        | L-22         |
|                                                                                                                             |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                             | L233MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 15       | 20   | 120                        |              |
|                                                                                                                             | L233SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 45   | 120                        |              |
|                                                                                                                             | L233YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 8        | 12   | 120                        |              |
|                                                                                                                             | L233BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 15   | 120                        |              |
|                                                                                                                             | L233AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 15       | 20   | 120                        |              |
|                                                                                                                             | L233SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 65       | 100  | 120                        |              |
| <br>2.0mm x 5.0mm Rectangular Flangeless | L453PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 20       | 25   | 120                        | L-23         |
|                                                                                                                             |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                             | L453MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 15       | 20   | 120                        |              |
|                                                                                                                             | L453SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 45   | 120                        |              |
|                                                                                                                             | L453YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 8        | 12   | 120                        |              |
|                                                                                                                             | L453BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 15   | 120                        |              |
|                                                                                                                             | L453AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 15       | 20   | 120                        |              |
|                                                                                                                             | L453SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 65       | 100  | 120                        |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-22  
L233XX

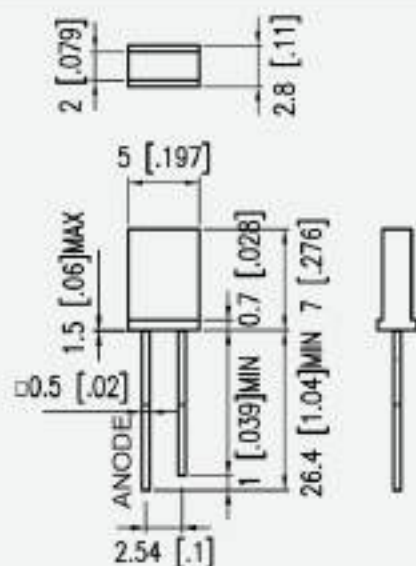
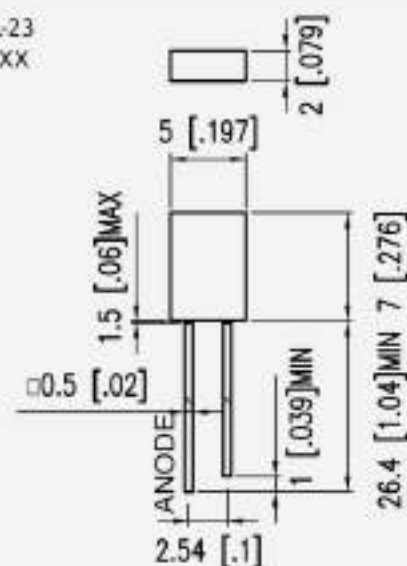
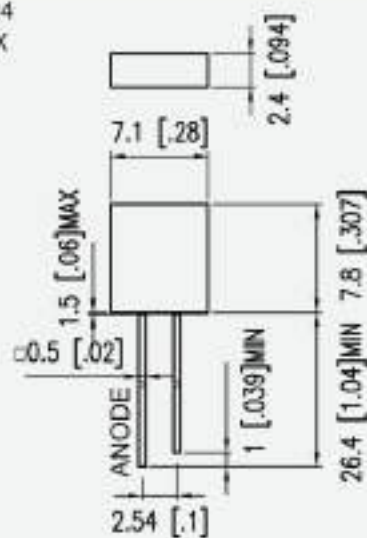
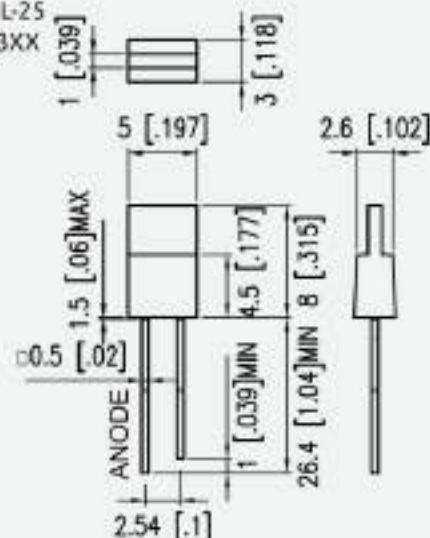
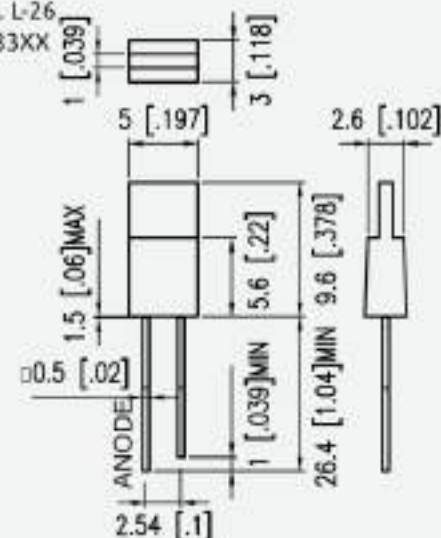


Fig. L-23  
L453XX



| Package Size                                                                                                     | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at IF=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                  |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                  |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>2.7mm x 7.1mm Rectangular   | L543PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 20       | 25   | 130                        | L-24         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L543MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 15       | 20   | 130                        |              |
|                                                                                                                  | L543SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 45   | 130                        |              |
|                                                                                                                  | L543YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 8        | 12   | 130                        |              |
|                                                                                                                  | L543BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 15   | 130                        |              |
|                                                                                                                  | L543AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 15       | 20   | 130                        |              |
|                                                                                                                  | L543SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 65       | 100  | 130                        |              |
| <br>1.0mm x 5.0mm Rectangular | L473PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 100                        | L-25         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L473MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 100                        |              |
|                                                                                                                  | L473SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 100                        |              |
|                                                                                                                  | L473YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 100                        |              |
|                                                                                                                  | L473BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 100                        |              |
|                                                                                                                  | L473AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 100                        |              |
|                                                                                                                  | L473SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 100                        |              |
| <br>1.0mm x 5.0mm Rectangular | L483PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 100                        | L-26         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L483MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 100                        |              |
|                                                                                                                  | L483SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 100                        |              |
|                                                                                                                  | L483YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 100                        |              |
|                                                                                                                  | L483BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 100                        |              |
|                                                                                                                  | L483AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 100                        |              |
|                                                                                                                  | L483SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 100                        |              |

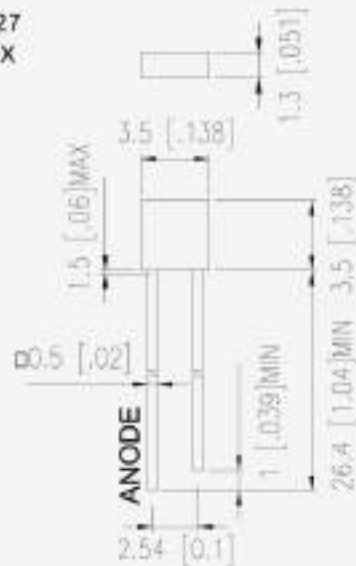
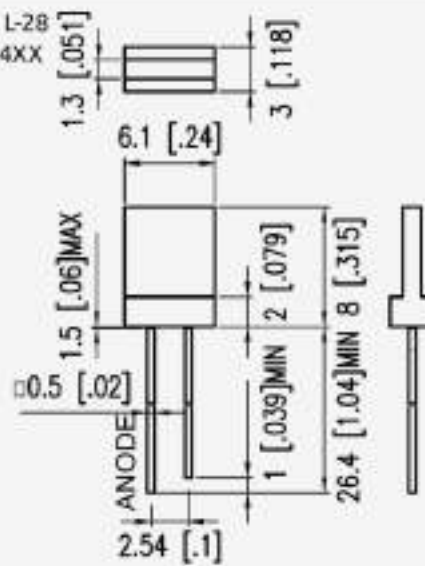
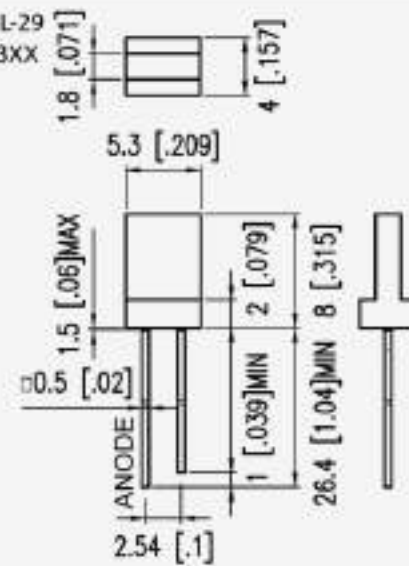
Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-24  
L543XX

Fig. L-25  
L473XX

Fig. L-26  
L483XX




| Package Size                                                                                                     | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                  |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                  |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>1.3mm x 3.5mm Super Thin    | L374PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 40       | 60   | 130                        | L-27         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L374MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 15       | 20   | 130                        |              |
|                                                                                                                  | L374SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 54   | 130                        |              |
|                                                                                                                  | L374YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 10       | 15   | 130                        |              |
|                                                                                                                  | L374BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 18   | 130                        |              |
|                                                                                                                  | L374AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 15       | 20   | 130                        |              |
|                                                                                                                  | L374SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 100      | 140  | 130                        |              |
| <br>1.3mm x 6.1mm Rectangular | L254PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 120                        | L-28         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L254MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                  | L254SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 120                        |              |
|                                                                                                                  | L254YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 120                        |              |
|                                                                                                                  | L254BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 120                        |              |
|                                                                                                                  | L254AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                  | L254SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 120                        |              |
| <br>1.8mm x 5.3mm Rectangular | L243PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 120                        | L-29         |
|                                                                                                                  |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                  | L243MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                  | L243SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 120                        |              |
|                                                                                                                  | L243YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 120                        |              |
|                                                                                                                  | L243BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 120                        |              |
|                                                                                                                  | L243AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                  | L243SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 120                        |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-27  
L374XX

Fig. L-28  
L254XX

Fig. L-29  
L243XX


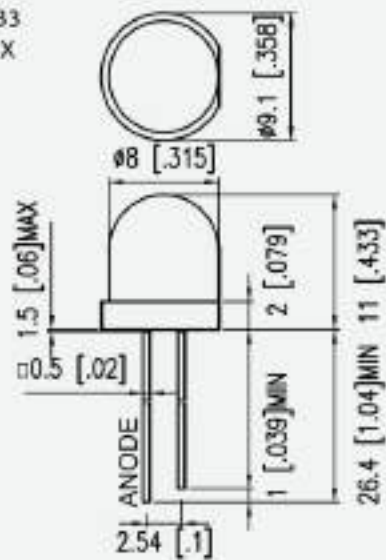
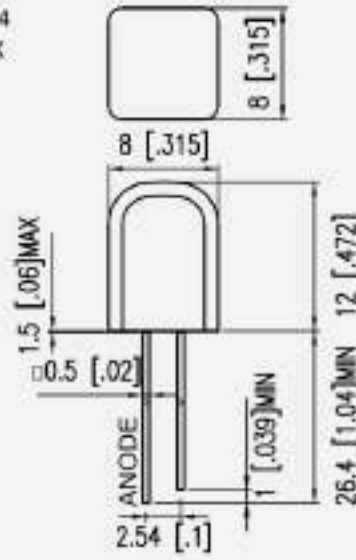
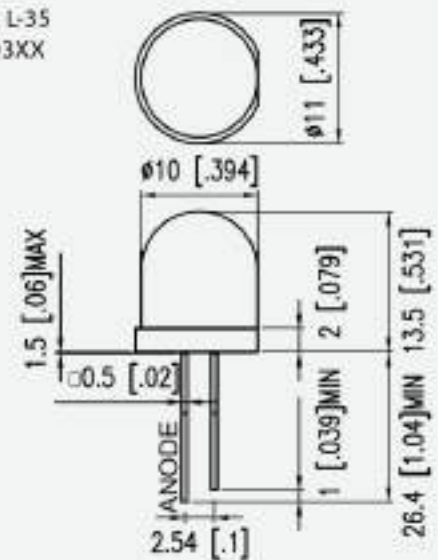
12

Technical drawing of a mechanical part with dimensions in inches and millimeters. The drawing includes a side view and a cross-sectional view. The side view shows a part with a total length of 26.4 [1.04] MIN 7 [276] and a width of 5.9 [232]. The cross-sectional view shows a part with a total length of 5.3 [208] and a width of 5.9 [232]. The part has a central hole with a diameter of 0.5 [0.02] and a length of 1.5 [0.06] MAX. The hole is located 4.8 [189] from the right end. The part has a total length of 4.8 [189] and a width of 5.9 [232]. The part has a total length of 4.8 [189] and a width of 5.9 [232]. The part has a total length of 4.8 [189] and a width of 5.9 [232].



| Package Size                                                                                         | Part Number | Chip     |         |                  | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------|-------------|----------|---------|------------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                      |             | Material | λD (nm) | Emitted Color    |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                      |             |          |         |                  |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>8.0mm Round     | L803PURD    | AlInGaP  | 637     | Ultra Red        | Red Diffused    | 1.9                                           | 2.4  | 180      | 300  | 45                         | L-33         |
|                                                                                                      | L803SMD     | AlInGaP  | 625     | Super Orange Red | Red Diffused    | 1.9                                           | 2.6  | 250      | 400  | 45                         |              |
|                                                                                                      | L803SBD     | AlInGaP  | 605     | Super Amber      | Amber Diffused  | 1.9                                           | 2.6  | 250      | 400  | 45                         |              |
|                                                                                                      | L803SYD     | AlInGaP  | 590     | Super Yellow     | Yellow Diffused | 1.9                                           | 2.6  | 250      | 400  | 45                         |              |
|                                                                                                      | L803SGD     | AlInGaP  | 571     | Super Green      | Green Diffused  | 2.0                                           | 2.6  | 120      | 180  | 45                         |              |
|                                                                                                      | L803UCD     | InGaN    | 520     | Ultra Green      | Green Diffused  | 3.1                                           | 3.6  | 1000     | 1500 | 45                         |              |
|                                                                                                      | L803SBLD    | InGaN    | 465     | Super Blue       | Blue Diffused   | 3.1                                           | 3.6  | 300      | 500  | 45                         |              |
| <br>8.0mm x 8.0mm | L083PURD    | AlInGaP  | 637     | Ultra Red        | Red Diffused    | 1.9                                           | 2.4  | 180      | 300  | 40                         | L-34         |
|                                                                                                      | L083SMD     | AlInGaP  | 625     | Super Orange Red | Red Diffused    | 1.9                                           | 2.6  | 250      | 400  | 40                         |              |
|                                                                                                      | L083SBD     | AlInGaP  | 605     | Super Amber      | Amber Diffused  | 1.9                                           | 2.6  | 250      | 400  | 40                         |              |
|                                                                                                      | L083SYD     | AlInGaP  | 590     | Super Yellow     | Yellow Diffused | 1.9                                           | 2.6  | 250      | 400  | 40                         |              |
|                                                                                                      | L083SGD     | AlInGaP  | 571     | Super Green      | Green Diffused  | 2.0                                           | 2.6  | 120      | 180  | 40                         |              |
|                                                                                                      | L083UCD     | InGaN    | 520     | Ultra Green      | Green Diffused  | 3.1                                           | 3.6  | 1000     | 1500 | 40                         |              |
|                                                                                                      | L083SBLD    | InGaN    | 465     | Super Blue       | Blue Diffused   | 3.1                                           | 3.6  | 300      | 500  | 40                         |              |
| <br>10mm Round    | L103PURD    | AlInGaP  | 637     | Ultra Red        | Red Diffused    | 1.9                                           | 2.4  | 200      | 350  | 45                         | L-35         |
|                                                                                                      | L103SMD     | AlInGaP  | 625     | Super Orange Red | Red Diffused    | 1.9                                           | 2.6  | 350      | 500  | 45                         |              |
|                                                                                                      | L103SBD     | AlInGaP  | 605     | Super Amber      | Amber Diffused  | 1.9                                           | 2.6  | 350      | 500  | 45                         |              |
|                                                                                                      | L103SYD     | AlInGaP  | 590     | Super Yellow     | Yellow Diffused | 1.9                                           | 2.6  | 350      | 500  | 45                         |              |
|                                                                                                      | L103SGD     | AlInGaP  | 571     | Super Green      | Green Diffused  | 2.0                                           | 2.6  | 200      | 300  | 45                         |              |
|                                                                                                      | L103UCD     | InGaN    | 520     | Ultra Green      | Green Diffused  | 3.1                                           | 3.6  | 1200     | 1800 | 45                         |              |
|                                                                                                      | L103SBLD    | InGaN    | 465     | Super Blue       | Blue Diffused   | 3.1                                           | 3.6  | 380      | 600  | 45                         |              |

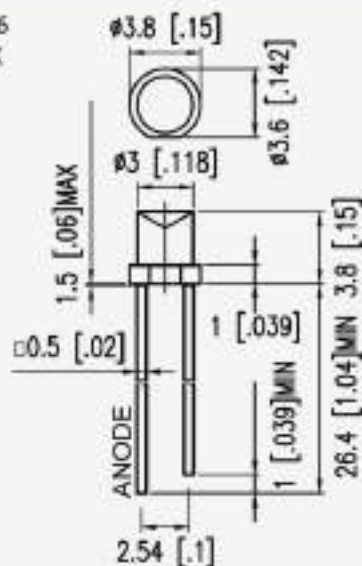
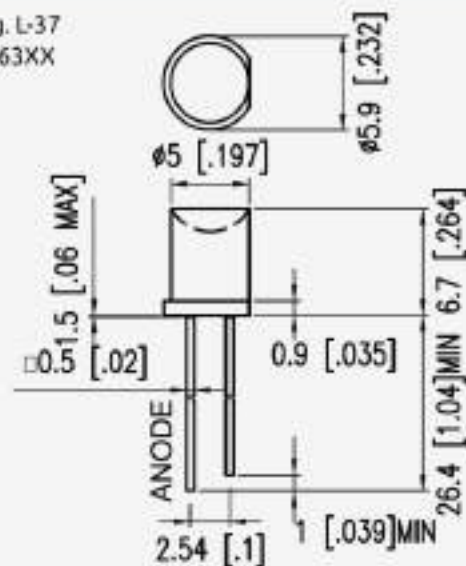
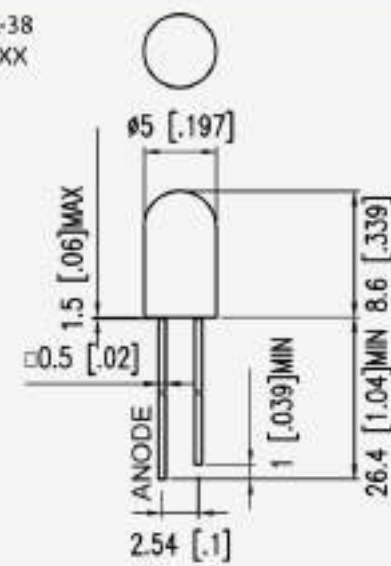
Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-33  
L803XX

Fig. L-34  
L083XX

Fig. L-35  
L103XX




| Package Size                                                                                                           | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                        |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                        |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>3.0mm Reflected Very Wide Angle   | L554PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 120                        | L-36         |
|                                                                                                                        |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                        | L554MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                        | L554SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 120                        |              |
|                                                                                                                        | L554YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 120                        |              |
|                                                                                                                        | L554BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 120                        |              |
|                                                                                                                        | L554AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 120                        |              |
|                                                                                                                        | L554SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 120                        |              |
| <br>5.0mm Reflected Very Wide Angle | L563PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 18       | 25   | 150                        | L-37         |
|                                                                                                                        |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                        | L563MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 12       | 16   | 150                        |              |
|                                                                                                                        | L563SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 30       | 42   | 150                        |              |
|                                                                                                                        | L563YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 7        | 10   | 150                        |              |
|                                                                                                                        | L563BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 10       | 14   | 150                        |              |
|                                                                                                                        | L563AD      | GaAsP on GaP | 635     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 12       | 16   | 150                        |              |
|                                                                                                                        | L563SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 50       | 85   | 150                        |              |
| <br>5mm Round, T-1 3/4 Flangeless   | L573PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 75       | 100  | 45                         | L-38         |
|                                                                                                                        |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                        | L573MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 45       | 60   | 45                         |              |
|                                                                                                                        | L573SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 120      | 150  | 45                         |              |
|                                                                                                                        | L573YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 35       | 50   | 45                         |              |
|                                                                                                                        | L573BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 35       | 50   | 45                         |              |
|                                                                                                                        | L573AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 45       | 60   | 45                         |              |
|                                                                                                                        | L573SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 150      | 260  | 45                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-36  
L554XX

Fig. L-37  
L563XX

Fig. L-38  
L573XX




| Package Size                                                                                                                | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|-----------------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                                             |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                                             |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br><br>5mm Round, T-1 3/4<br>4.5mm Height | L633PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 60       | 85   | 130                        | L-40         |
|                                                                                                                             |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                             | L633MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 25       | 30   | 130                        |              |
|                                                                                                                             | L633SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 60       | 75   | 130                        |              |
|                                                                                                                             | L633YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 20       | 25   | 130                        |              |
|                                                                                                                             | L633BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 25       | 30   | 130                        |              |
|                                                                                                                             | L633AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 25       | 30   | 130                        |              |
|                                                                                                                             | L633SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 120      | 160  | 130                        |              |
| <br><br>2.0mm x 3.0mm<br>Rectangular     | L364PURD    | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 1.9                                           | 2.4  | 40       | 60   | 100                        | L-41         |
|                                                                                                                             |             |              |         |               |                 |                                               |      |          |      |                            |              |
|                                                                                                                             | L364MD      | GaAsP on GaP | 625     | Orange Red    | Red Diffused    | 2.0                                           | 2.6  | 15       | 20   | 100                        |              |
|                                                                                                                             | L364SGD     | AlInGaP      | 570     | Super Green   | Green Diffused  | 2.2                                           | 2.6  | 36       | 54   | 100                        |              |
|                                                                                                                             | L364YD      | GaAsP on GaP | 590     | Yellow        | Yellow Diffused | 2.0                                           | 2.6  | 10       | 15   | 100                        |              |
|                                                                                                                             | L364BD      | GaAsP on GaP | 605     | Amber         | Amber Diffused  | 2.0                                           | 2.6  | 12       | 18   | 100                        |              |
|                                                                                                                             | L364AD      | GaAsP on GaP | 625     | Orange Red    | Orange Diffused | 2.0                                           | 2.6  | 15       | 20   | 100                        |              |
|                                                                                                                             | L364SBLD    | InGaN        | 465     | Super Blue    | Blue Diffused   | 3.1                                           | 3.6  | 100      | 140  | 100                        |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-40  
L633X

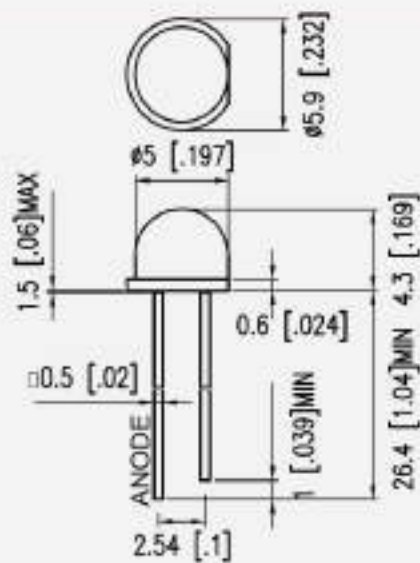
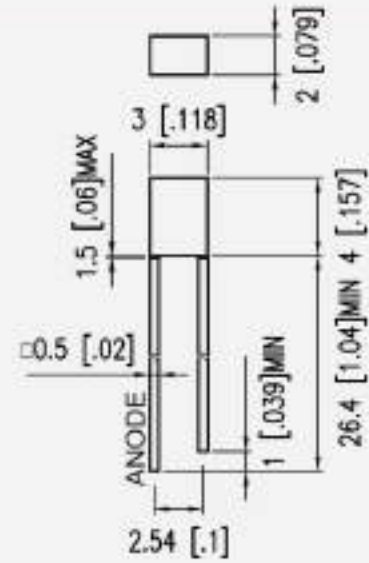


Fig. L-41  
L364XX



| Package Size                                                                                               | Part Number | Chip     |         |                  | Lens Color  | Electrical-Optical Characteristics at IF=20mA |      |          |       | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|------------------------------------------------------------------------------------------------------------|-------------|----------|---------|------------------|-------------|-----------------------------------------------|------|----------|-------|----------------------------|--------------|
|                                                                                                            |             | Material | λD (nm) | Emitted Color    |             | Vf (V)                                        |      | Iv (mcd) |       |                            |              |
|                                                                                                            |             |          |         |                  |             | Typ.                                          | Max. | Min.     | Typ.  |                            |              |
| <br>3 mm Round, T-1      | L034URC     | GaAlAs   | 645     | Ultra Red        | Water Clear | 1.9                                           | 2.4  | 500      | 1000  | 36                         | L-46         |
|                                                                                                            | L034RHC     | AlInGaP  | 645     | Red              | Water Clear | 2                                             | 2.5  | 1800     | 2500  | 36                         |              |
|                                                                                                            | L034SAC     | AlInGaP  | 625     | Super Orange Red | Water Clear | 1.9                                           | 2.5  | 1000     | 1600  | 36                         |              |
|                                                                                                            | L034UAC     | AlInGaP  | 625     | Ultra Orange Red | Water Clear | 2                                             | 2.5  | 3000     | 4000  | 36                         |              |
|                                                                                                            | L034SBC     | AlInGaP  | 605     | Super Amber      | Water Clear | 1.9                                           | 2.5  | 900      | 1600  | 36                         |              |
|                                                                                                            | L034UBC     | AlInGaP  | 605     | Ultra Amber      | Water Clear | 2                                             | 2.5  | 3500     | 4500  | 36                         |              |
|                                                                                                            | L034SYC     | AlInGaP  | 590     | Super Yellow     | Water Clear | 1.9                                           | 2.5  | 1000     | 1600  | 36                         |              |
|                                                                                                            | L034UYC     | AlInGaP  | 590     | Ultra Yellow     | Water Clear | 2                                             | 2.5  | 3000     | 4500  | 36                         |              |
|                                                                                                            | L034SGC     | AlInGaP  | 572     | Super Green      | Water Clear | 2                                             | 2.5  | 400      | 550   | 36                         |              |
|                                                                                                            | L034UGC     | AlInGaP  | 525     | Ultra Green      | Water Clear | 3.1                                           | 3.6  | 10000    | 15000 | 36                         |              |
|                                                                                                            | L034BGC     | InGaN    | 505     | Blue Green       | Water Clear | 3.1                                           | 3.6  | 10000    | 15000 | 36                         |              |
|                                                                                                            | L034SBLC    | InGaN    | 465     | Blue             | Water Clear | 3.1                                           | 3.6  | 1500     | 2000  | 36                         |              |
|                                                                                                            | L034UBLC    | InGaN    | 465     | Ultra Blue       | Water Clear | 3.1                                           | 3.6  | 2500     | 4000  | 36                         |              |
| <br>5 mm Round, T-1 3/4 | L053URC     | GaAlAs   | 645     | Ultra Red        | Water Clear | 1.9                                           | 2.4  | 900      | 1600  | 16                         | L-47         |
|                                                                                                            | L053RHC     | AlInGaP  | 645     | Red              | Water Clear | 2                                             | 2.5  | 2800     | 4000  | 16                         |              |
|                                                                                                            | L053SAC     | AlInGaP  | 625     | Super Orange Red | Water Clear | 1.9                                           | 2.5  | 1600     | 2500  | 16                         |              |
|                                                                                                            | L053UAC     | AlInGaP  | 625     | Ultra Orange Red | Water Clear | 2                                             | 2.5  | 8000     | 12000 | 16                         |              |
|                                                                                                            | L053SBC     | AlInGaP  | 605     | Super Amber      | Water Clear | 1.9                                           | 2.5  | 1500     | 2500  | 16                         |              |
|                                                                                                            | L053UBC     | AlInGaP  | 605     | Ultra Amber      | Water Clear | 2                                             | 2.5  | 8500     | 13000 | 16                         |              |
|                                                                                                            | L053SYC     | AlInGaP  | 590     | Super Yellow     | Water Clear | 1.9                                           | 2.5  | 1600     | 2500  | 16                         |              |
|                                                                                                            | L053UYC     | AlInGaP  | 590     | Ultra Yellow     | Water Clear | 2                                             | 2.5  | 8000     | 12000 | 16                         |              |
|                                                                                                            | L053SGC     | AlInGaP  | 572     | Super Green      | Water Clear | 2                                             | 2.5  | 800      | 1000  | 16                         |              |
|                                                                                                            | L053UGC     | AlInGaP  | 525     | Ultra Green      | Water Clear | 3.1                                           | 3.6  | 18000    | 25000 | 16                         |              |
|                                                                                                            | L053BGC     | InGaN    | 505     | Blue Green       | Water Clear | 3.1                                           | 3.6  | 18000    | 25000 | 16                         |              |
|                                                                                                            | L053SBLC    | InGaN    | 465     | Blue             | Water Clear | 3.1                                           | 3.6  | 2000     | 3000  | 16                         |              |
|                                                                                                            | L053UBLC    | InGaN    | 465     | Ultra Blue       | Water Clear | 3.1                                           | 3.6  | 4500     | 7000  | 16                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-46  
L034XX

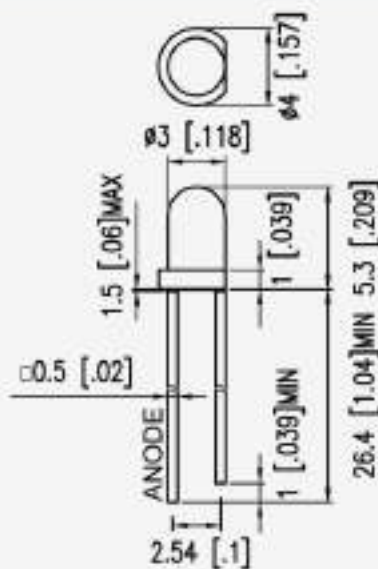
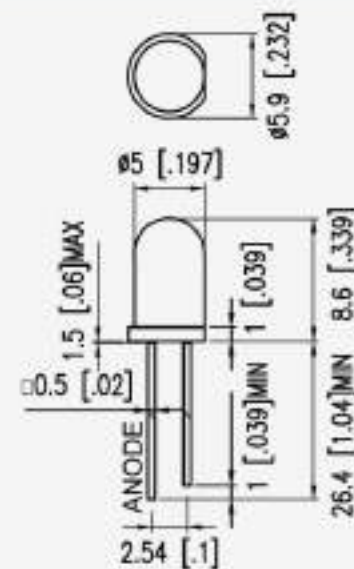
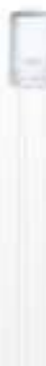


Fig. L-47  
L053XX





| Package Size                                                                                                       | Part Number  | Chip     |                                   |        | Lens Color  | Electrical-Optical Characteristics at If=20mA |      |          |       | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|--------------------------------------------------------------------------------------------------------------------|--------------|----------|-----------------------------------|--------|-------------|-----------------------------------------------|------|----------|-------|----------------------------|--------------|
|                                                                                                                    |              | Material | Chromaticity Coordinate Typ.(x,y) |        |             | Vf (V)                                        |      | Iv (mcd) |       |                            |              |
|                                                                                                                    |              |          |                                   |        |             | Typ.                                          | Max. | Min.     | Typ.  |                            |              |
| <br>3 mm Round, T-1               | L034SWC-BH1  | InGaN    | x=0.25                            | y=0.21 | Water Clear | 3.1                                           | 3.6  | 7000     | 10000 | 40                         | L-48         |
|                                                                                                                    | L034SWC-WH1  | InGaN    | x=0.3                             | y=0.3  | Water Clear | 3.1                                           | 3.6  | 7000     | 10000 | 40                         |              |
|                                                                                                                    | L034SWC-YYH1 | InGaN    | x=0.42                            | y=0.42 | Water Clear | 3.1                                           | 3.6  | 6500     | 9000  | 40                         |              |
| <br>5 mm Round, T-1 3/4         | L053SWC-BH1  | InGaN    | x=0.25                            | y=0.21 | Water Clear | 3.1                                           | 3.6  | 15000    | 25000 | 18                         | L-49         |
|                                                                                                                    | L053SWC-WH1  | InGaN    | x=0.3                             | y=0.3  | Water Clear | 3.1                                           | 3.6  | 15000    | 25000 | 18                         |              |
|                                                                                                                    | L053SWC-YYH1 | InGaN    | x=0.42                            | y=0.42 | Water Clear | 3.1                                           | 3.6  | 10000    | 20000 | 18                         |              |
| <br>5 mm Cylindrical Flangeless | L433SWC-BH1  | InGaN    | x=0.25                            | y=0.21 | Water Clear | 3.1                                           | 3.6  | 1000     | 1700  | 130                        | L-50         |
|                                                                                                                    | L433SWC-WH1  | InGaN    | x=0.3                             | y=0.3  | Water Clear | 3.1                                           | 3.6  | 1000     | 1700  | 130                        |              |
|                                                                                                                    | L433SWC-YYH1 | InGaN    | x=0.42                            | y=0.42 | Water Clear | 3.1                                           | 3.6  | 1000     | 1700  | 130                        |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-48  
L034XX

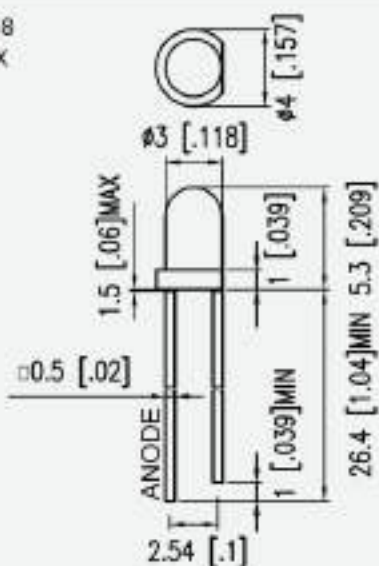


Fig. L-49  
L053XX

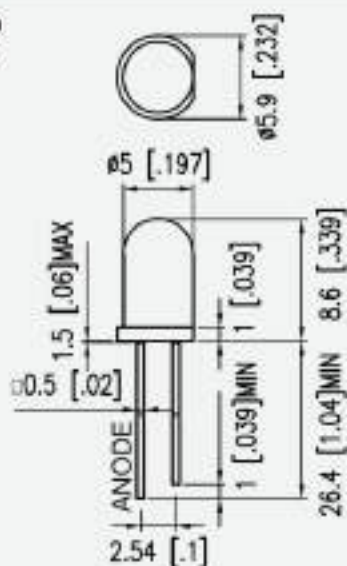
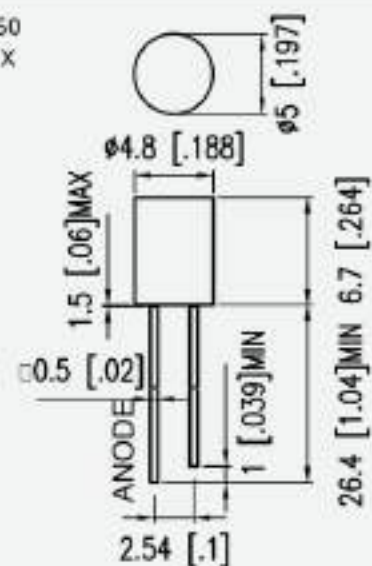
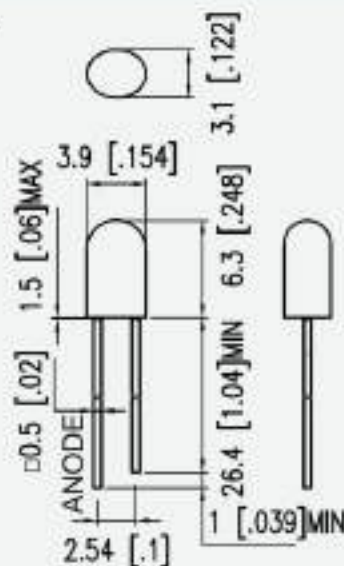
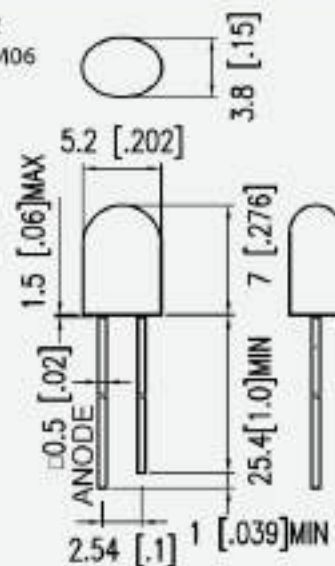
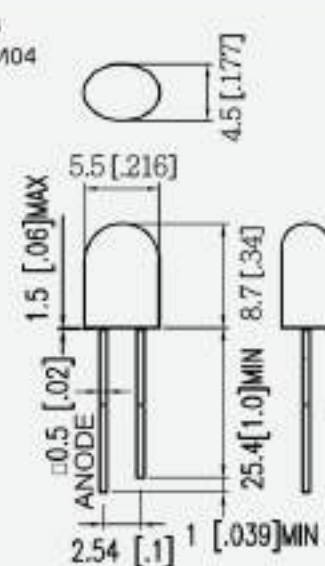


Fig. L-50  
L433XX



| Package Size                                                                                                   | Part Number | Chip     |         |                      | Lens Color         | Electrical-Optical Characteristics at If=20mA |      |          |       | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------------|-------------|----------|---------|----------------------|--------------------|-----------------------------------------------|------|----------|-------|----------------------------|--------------|
|                                                                                                                |             | Material | λD (nm) | Emitted Color        |                    | Vf (V)                                        |      | Iv (mcd) |       |                            |              |
|                                                                                                                |             |          |         |                      |                    | Typ.                                          | Max. | Min.     | Typ.  |                            |              |
| <br>3.9 x 3.1mm Elliptical    | LV3UMT      | AlInGaP  | 625     | Brilliant Orange Red | Red Transparent    | 2.0                                           | 2.6  | 2000     | 3500  | X=110<br>Y=50              | L-51         |
|                                                                                                                | LV3UYT      | AlInGaP  | 590     | Brilliant Yellow     | Yellow Transparent | 2.0                                           | 2.6  | 2000     | 3500  | X=110<br>Y=50              |              |
|                                                                                                                | LV3UGT      | InGaN    | 525     | Brilliant Green      | Green Transparent  | 3.2                                           | 3.6  | 6000     | 8500  | X=110<br>Y=50              |              |
|                                                                                                                | LV3UBLT     | InGaN    | 465     | Brilliant Super Blue | Blue Transparent   | 3.1                                           | 3.6  | 1500     | 2500  | X=110<br>Y=50              |              |
| <br>5.2 x 3.8 mm Elliptical | LV5UMT-M06  | AlInGaP  | 625     | Brilliant Orange Red | Red Transparent    | 2.0                                           | 2.6  | 2500     | 3800  | X=90<br>Y=40               | L-52         |
|                                                                                                                | LV5UYT-M06  | AlInGaP  | 590     | Brilliant Yellow     | Yellow Transparent | 2.0                                           | 2.6  | 2500     | 3800  | X=90<br>Y=40               |              |
|                                                                                                                | LV5UGT-M06  | InGaN    | 525     | Brilliant Green      | Green Transparent  | 3.2                                           | 3.6  | 6500     | 10000 | X=90<br>Y=40               |              |
|                                                                                                                | LV5UBLT-M06 | InGaN    | 465     | Brilliant Super Blue | Blue Transparent   | 3.1                                           | 3.6  | 2000     | 3000  | X=90<br>Y=40               |              |
| <br>5.5 x 4.5 mm Elliptical | LV5UMT-M04  | AlInGaP  | 625     | Brilliant Orange Red | Red Transparent    | 2.0                                           | 2.6  | 3500     | 5000  | X=80<br>Y=36               | L-53         |
|                                                                                                                | LV5UYT-M04  | AlInGaP  | 590     | Brilliant Yellow     | Yellow Transparent | 2.0                                           | 2.6  | 3500     | 5000  | X=80<br>Y=36               |              |
|                                                                                                                | LV5UGT-M04  | InGaN    | 525     | Brilliant Green      | Green Transparent  | 3.2                                           | 3.6  | 8500     | 12500 | X=80<br>Y=36               |              |
|                                                                                                                | LV5UBLT-M04 | InGaN    | 465     | Brilliant Super Blue | Blue Transparent   | 3.1                                           | 3.6  | 2500     | 4000  | X=80<br>Y=36               |              |

Package Dimensions unit: mm Tolerance : ± 0.25mm(0.01")

Fig. L-51  
LV3XX

Fig. L-52  
LV5XX-M06

Fig. L-53  
LV5XX-M04




| Package Size                                                                                                | Part Number | Chip         |         |               | Lens Color      | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|-------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|---------------|-----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                             |             | Material     | λD (nm) | Emitted Color |                 | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                             |             |              |         |               |                 | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br><br>3.0mm Round, T-1   | LF036PURD   | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 5                                             | 6    | 35       | 50   | 70                         | L-54         |
|                                                                                                             | LF036MD     | GaAsP on Gap | 625     | Orange Red    | Red Diffused    | 5                                             | 6    | 30       | 35   | 70                         |              |
|                                                                                                             | LF036YD     | GaAsP on Gap | 590     | Yellow        | Yellow Diffused | 5                                             | 6    | 25       | 30   | 70                         |              |
|                                                                                                             | LF036SGD    | AlInGaP      | 570     | Super Green   | Green Diffused  | 5                                             | 6    | 75       | 90   | 70                         |              |
| <br><br>5.0mm Round, T-1 | LF056PURD   | AlInGaP      | 637     | Ultra Red     | Red Diffused    | 5                                             | 6    | 70       | 85   | 45                         | L-55         |
|                                                                                                             | LF056MD     | GaAsP on Gap | 625     | Orange Red    | Red Diffused    | 5                                             | 6    | 50       | 60   | 45                         |              |
|                                                                                                             | LF056YD     | GaAsP on Gap | 590     | Yellow        | Yellow Diffused | 5                                             | 6    | 45       | 55   | 45                         |              |
|                                                                                                             | LF056SGD    | AlInGaP      | 570     | Super Green   | Green Diffused  | 5                                             | 6    | 135      | 165  | 45                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-54  
LF036XX

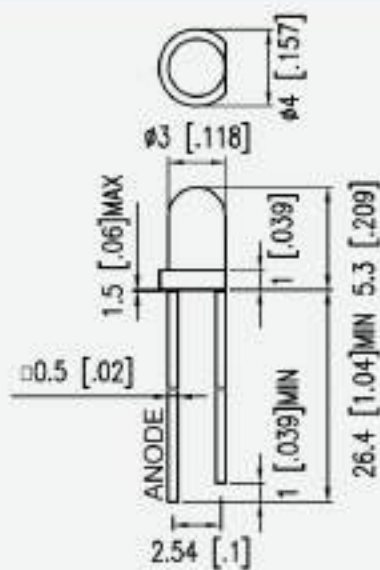
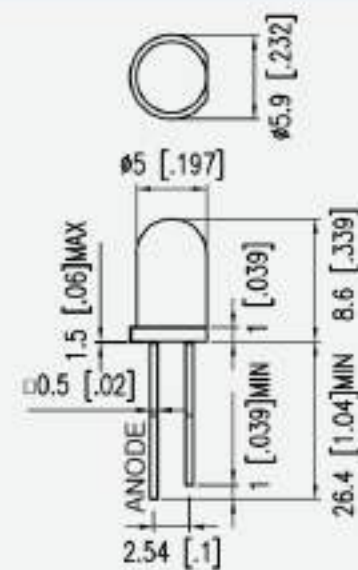
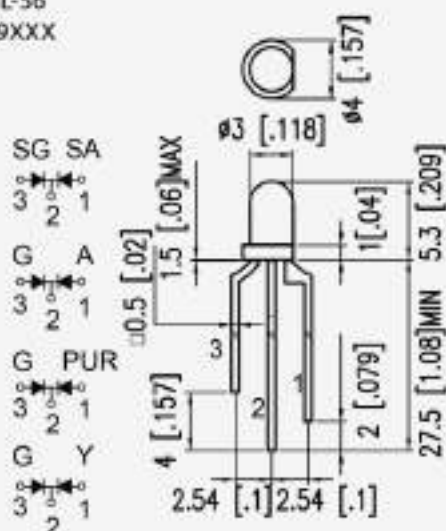
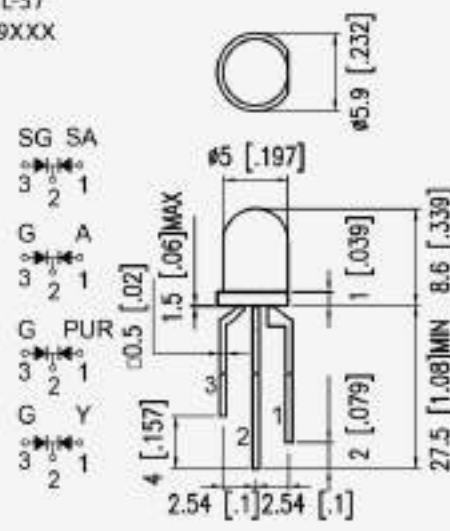
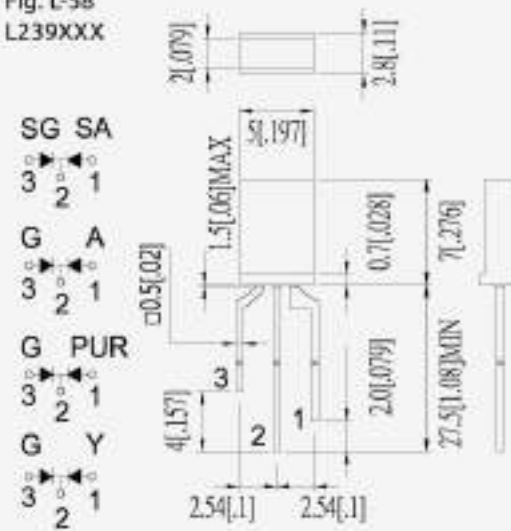


Fig. L-55  
LF056XX



| Package Size                                                                                                 | Part Number | Chip         |         |                  | Lens Color     | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|--------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|------------------|----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                              |             | Material     | λD (nm) | Emitted Color    |                | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                              |             |              |         |                  |                | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>3.0mm Round, T-1        | L039PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 50       | 75   | 76                         | L-56         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 75       | 90   |                            |              |
|                                                                                                              | L039ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 28       | 35   | 76                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 75       | 90   |                            |              |
|                                                                                                              | L039YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 20       | 25   | 76                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 75       | 90   |                            |              |
|                                                                                                              | L039SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.6  | 85       | 130  | 76                         |              |
|                                                                                                              |             | AlInGaP      | 572     | Super Green      |                | 1.8                                           | 2.0  | 50       | 70   |                            |              |
| <br>5.0mm Round, T-1 3/4  | L059PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 60       | 80   | 45                         | L-57         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 135  |                            |              |
|                                                                                                              | L059ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 40       | 50   | 45                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 135  |                            |              |
|                                                                                                              | L059YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 30       | 40   | 45                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 135  |                            |              |
|                                                                                                              | L059SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.6  | 100      | 150  | 45                         |              |
|                                                                                                              |             | AlInGaP      | 572     | Super Green      |                | 1.8                                           | 2.0  | 70       | 100  |                            |              |
| <br>2mm x 5mm Rectangular | L239PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 18       | 25   | 120                        | L-58         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 30       | 45   |                            |              |
|                                                                                                              | L239ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 13       | 18   | 120                        |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 30       | 45   |                            |              |
|                                                                                                              | L239YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 8        | 12   | 120                        |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 30       | 45   |                            |              |
|                                                                                                              | L239SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.6  | 70       | 100  | 120                        |              |
|                                                                                                              |             | AlInGaP      | 572     | Super Green      |                | 1.8                                           | 2.0  | 35       | 60   |                            |              |

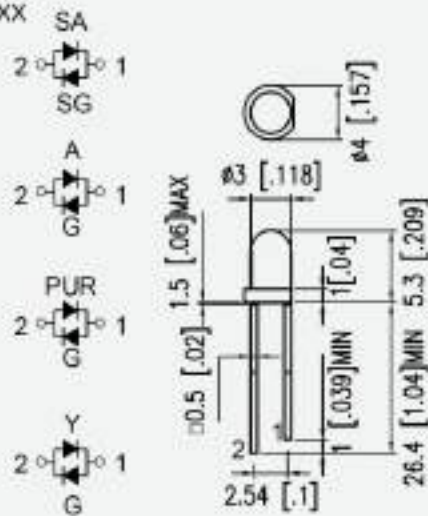
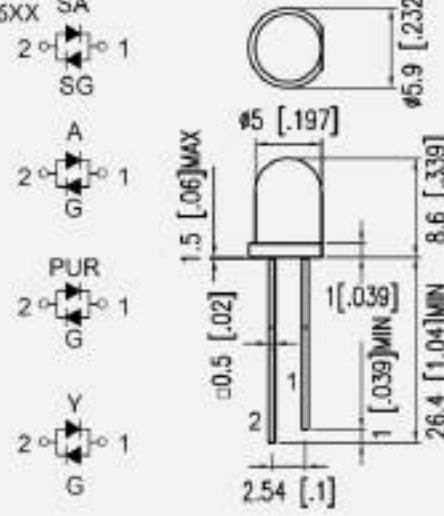
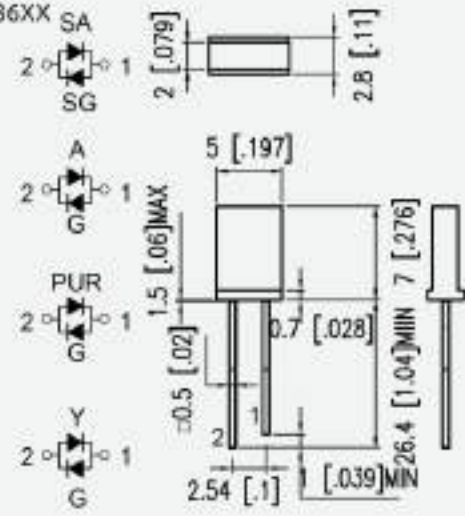
Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-56  
L039XXX

Fig. L-57  
L059XXX

Fig. L-58  
L239XXX




| Package Size                                                                                                 | Part Number | Chip         |         |                  | Lens Color     | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|--------------------------------------------------------------------------------------------------------------|-------------|--------------|---------|------------------|----------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                              |             | Material     | λD (nm) | Emitted Color    |                | VF (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                              |             |              |         |                  |                | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>3.0mm Round, T-1        | L036PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 25       | 35   | 70                         | L-59         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L036ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 18       | 25   | 70                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L036YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 15       | 20   | 70                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L036SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.5  | 35       | 50   | 70                         |              |
|                                                                                                              |             | AlInGaP      | 571     | Super Green      |                | 2.0                                           | 2.6  | 25       | 35   |                            |              |
| <br>5.0mm Round, T-1 3/4  | L056PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 60       | 80   | 45                         | L-60         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 120  |                            |              |
|                                                                                                              | L056ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 50       | 60   | 45                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 120  |                            |              |
|                                                                                                              | L056YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 50       | 60   | 45                         |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 90       | 120  |                            |              |
|                                                                                                              | L056SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.5  | 100      | 120  | 45                         |              |
|                                                                                                              |             | AlInGaP      | 571     | Super Green      |                | 2.0                                           | 2.6  | 45       | 60   |                            |              |
| <br>2mm x 5mm Rectangular | L236PURSGW  | AlInGaP      | 637     | Ultra Red        | White Diffused | 1.9                                           | 2.4  | 25       | 35   | 120                        | L-61         |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L236ASGW    | GaAsP on GaP | 625     | Orange Red       | White Diffused | 2.0                                           | 2.6  | 20       | 25   | 120                        |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L236YSGW    | GaAsP on GaP | 590     | Yellow           | White Diffused | 2.0                                           | 2.6  | 15       | 20   | 120                        |              |
|                                                                                                              |             | AlInGaP      | 570     | Super Green      |                | 2.2                                           | 2.6  | 45       | 60   |                            |              |
|                                                                                                              | L236SASGW   | AlInGaP      | 625     | Super Orange Red | White Diffused | 1.9                                           | 2.5  | 40       | 60   | 120                        |              |
|                                                                                                              |             | AlInGaP      | 571     | Super Green      |                | 2.0                                           | 2.0  | 25       | 35   |                            |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-59  
L036XX

Fig. L-60  
L056XX

Fig. L-61  
L236XX


| Package Size                                                                                             | Part Number   | Chip         |         |               | Lens Color          | Electrical-Optical Characteristics at IF=12mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------|---------------|--------------|---------|---------------|---------------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                          |               | Material     | λD (nm) | Emitted Color |                     | VF (V)                                        |      | IV (mcd) |      |                            |              |
|                                                                                                          |               |              |         |               |                     | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>5mm Round, T-1 3/4  | L053HPURD-5V  | AlInGaP      | 637     | Ultra Red     | Red Diffused        | 5                                             | 6    | 45       | 60   | 45                         | L-62         |
|                                                                                                          | L053HBD-5V    | GaAsP on GaP | 605     | Amber         | Amber Diffused      | 5                                             | 6    | 25       | 35   | 45                         |              |
|                                                                                                          | L053HYD-5V    | GaAsP on GaP | 590     | Yellow        | Yellow Diffused     | 5                                             | 6    | 25       | 35   | 45                         |              |
|                                                                                                          | L053HSGD-5V   | AlInGaP      | 570     | Super Green   | Green Diffused      | 5                                             | 6    | 66       | 90   | 45                         |              |
|                                                                                                          | L053HSBLD-5V  | InGaN        | 470     | Super Blue    | Super Blue Diffused | 5                                             | 6    | 80       | 120  | 45                         |              |
| <br>5mm Round,T-1 3/4 | L053HPURD-12V | AlInGaP      | 637     | Ultra Red     | Red Diffused        | 12                                            | 13   | 30       | 45   | 45                         | L-63         |
|                                                                                                          | L053HBD-12V   | GaAsP on GaP | 605     | Amber         | Amber Diffused      | 12                                            | 13   | 20       | 25   | 45                         |              |
|                                                                                                          | L053HYD-12V   | GaAsP on GaP | 590     | Yellow        | Yellow Diffused     | 12                                            | 13   | 20       | 25   | 45                         |              |
|                                                                                                          | L053HSGD-12V  | AlInGaP      | 570     | Super Green   | Green Diffused      | 12                                            | 13   | 45       | 60   | 45                         |              |
|                                                                                                          | L053HSBLD-12V | InGaN        | 470     | Super Blue    | Super Blue Diffused | 12                                            | 13   | 65       | 100  | 45                         |              |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-62  
L053HXX-5V

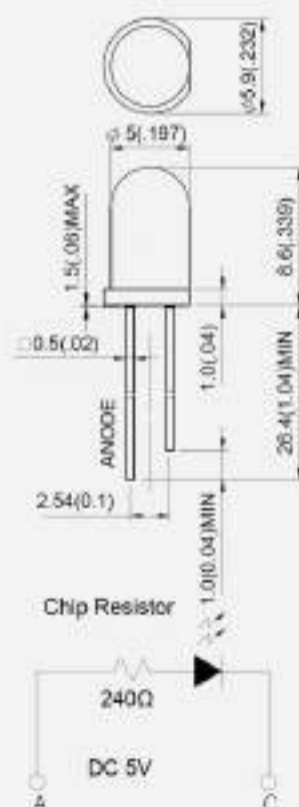
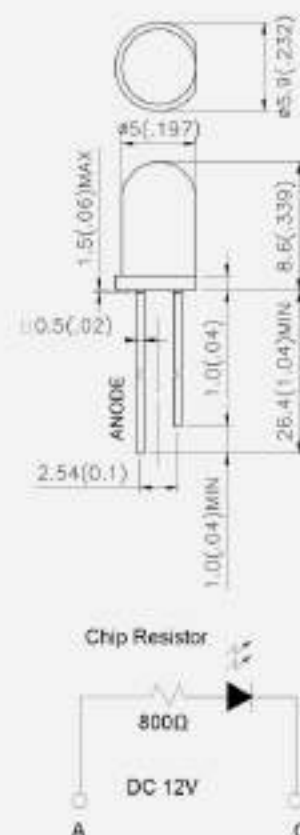


Fig. L-63  
L053HXX-12V

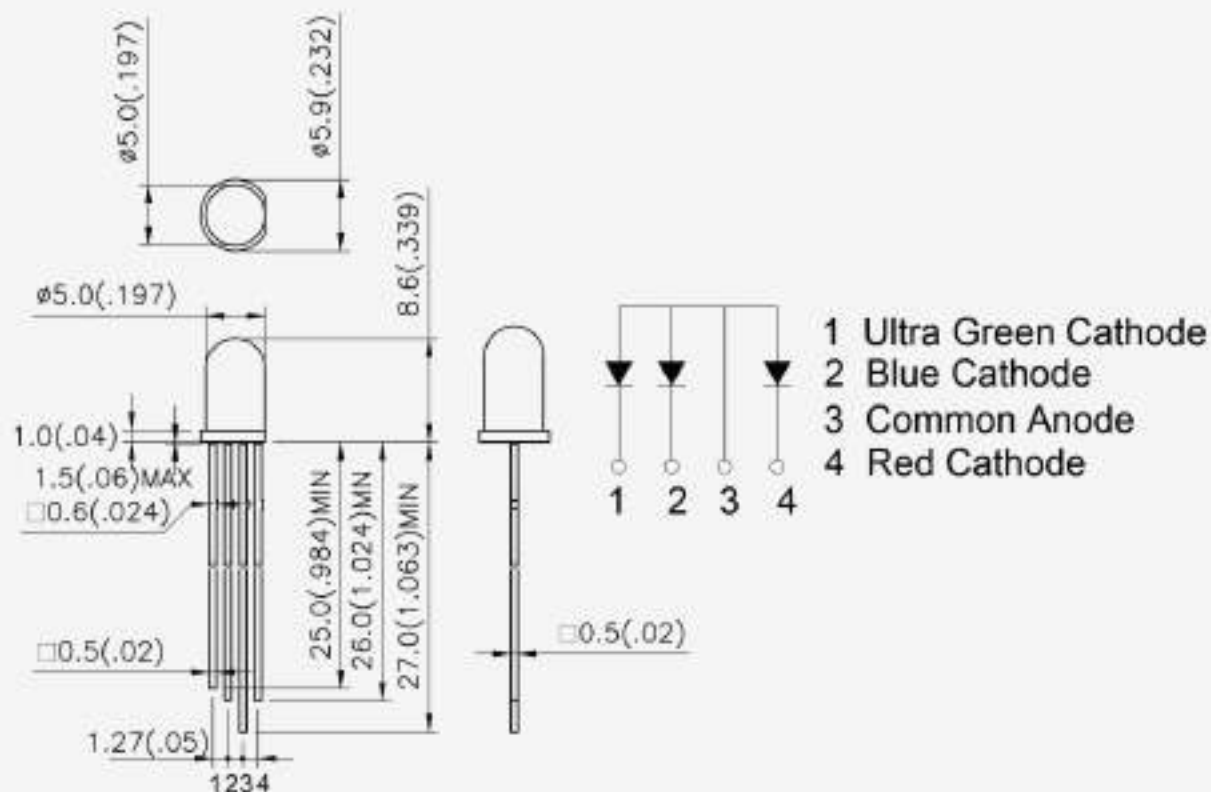




| Package Size                                                                                             | Part Number | Chip     |         |                      | Lens Color  | Electrical-Optical Characteristics at If=20mA |      |          |      | Viewing Angle (deg) 2θ 1/2 | Package Fig. |
|----------------------------------------------------------------------------------------------------------|-------------|----------|---------|----------------------|-------------|-----------------------------------------------|------|----------|------|----------------------------|--------------|
|                                                                                                          |             | Material | λD (nm) | Emitted Color        |             | Vf (V)                                        |      | Iv (mcd) |      |                            |              |
|                                                                                                          |             |          |         |                      |             | Typ.                                          | Max. | Min.     | Typ. |                            |              |
| <br>5mm Round, h=1 3/4 | LA058GBRC-A | InGaN    | 525     | Brilliant Green      | Water Clear | 3.1                                           | 3.6  | 1500     | 3000 | 30                         | L-64         |
|                                                                                                          |             | InGaN    | 465     | Brilliant Super Blue |             | 3.1                                           | 3.6  | 310      | 700  |                            |              |
|                                                                                                          |             | AlInGaP  | 625     | Brilliant Red        |             | 2                                             | 2.5  | 310      | 680  |                            |              |

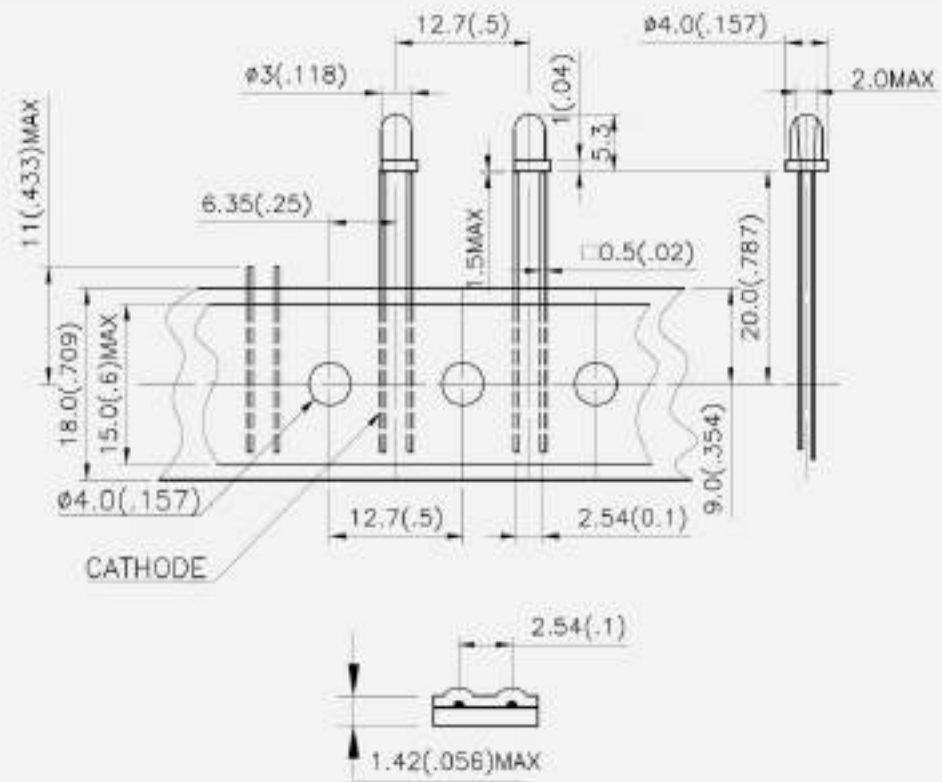
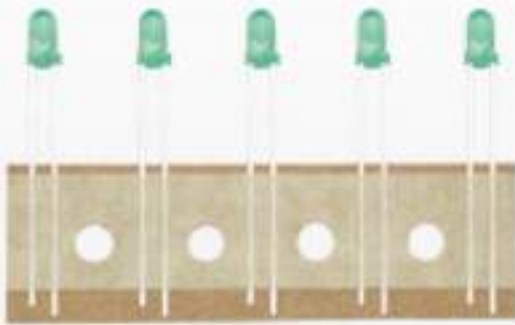
Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-64  
LA058GBRC-A

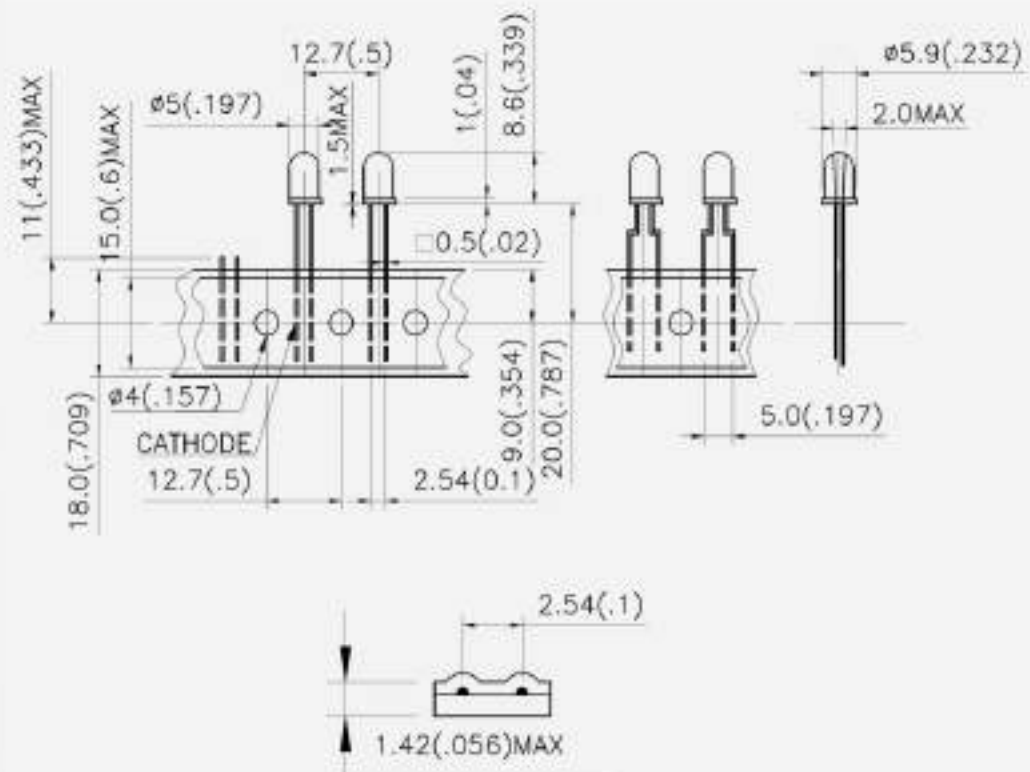
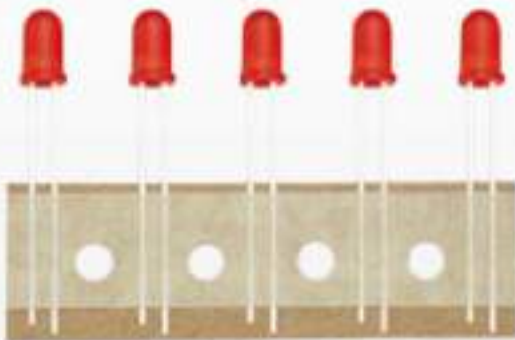


Package Dimensions unit : mm Tolerance :  $\pm 0.25\text{mm}(0.01")$

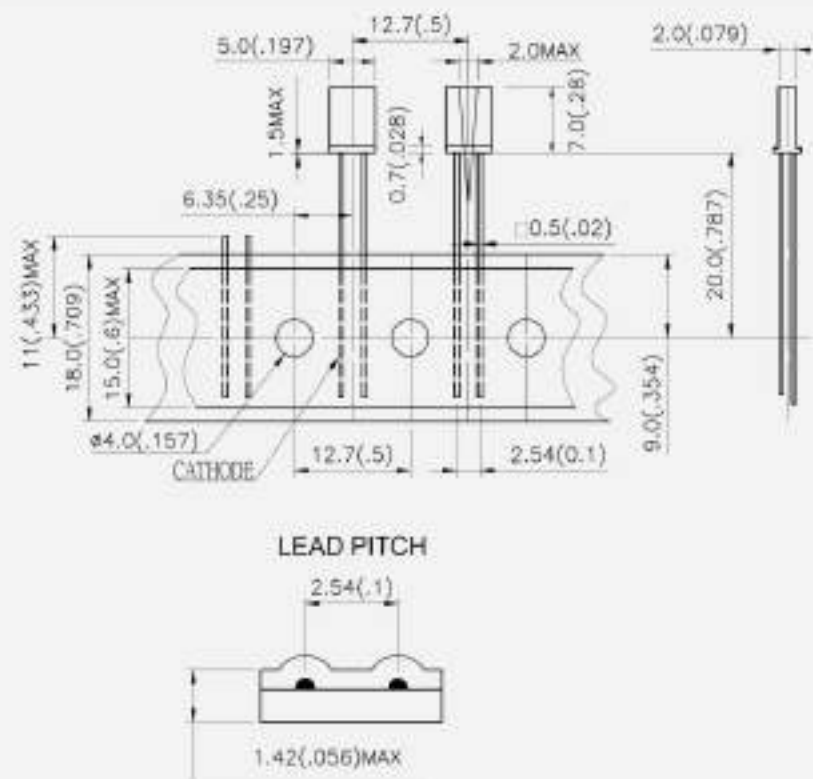
TYPE : L034TXX



TYPE : L053TXX



TYPE : L233TXX





| Package Size                                                                                            | Part Number | Chip     |         | Lens Color       | VF (V)<br>at IF=20mA |      | Power(mW/sr)<br>at IF=20mA |      | Viewing<br>Angle<br>(deg)<br>2θ 1/2 | Package Fig. |
|---------------------------------------------------------------------------------------------------------|-------------|----------|---------|------------------|----------------------|------|----------------------------|------|-------------------------------------|--------------|
|                                                                                                         |             | Material | λD (nm) |                  | Typ.                 | Max. | Min.                       | Typ. |                                     |              |
| <br>3mm Round, T-1     | LIR034      | GaAlAs   | 940     | Blue Transparent | 1.2                  | 1.4  | 1                          | 1.5  | 30                                  | L-65         |
|                                                                                                         | LSIR034     | GaAlAs   | 880     | Blue Transparent | 1.3                  | 1.6  | 3                          | 5    | 30                                  |              |
|                                                                                                         | LUIR034     | GaAlAs   | 850     | Blue Transparent | 1.4                  | 1.7  | 20                         | 25   | 30                                  |              |
| <br>5mm Round, T-1 3/4 | LIR053      | GaAlAs   | 940     | Blue Transparent | 1.2                  | 1.4  | 8                          | 12   | 16                                  | L-66         |
|                                                                                                         | LSIR053     | GaAlAs   | 880     | Blue Transparent | 1.3                  | 1.6  | 10                         | 15   | 16                                  |              |
|                                                                                                         | LUIR053     | GaAlAs   | 850     | Blue Transparent | 1.4                  | 1.7  | 25                         | 35   | 16                                  |              |

### PHOTOTRANSISTOR

| Package Size                                                                                              | Part Number | Chip     |             | Rise & Fall<br>Time(us) | BVceo<br>Min.(V) | V(sat)                    |         | IC(on)                    |          | Package Fig. |
|-----------------------------------------------------------------------------------------------------------|-------------|----------|-------------|-------------------------|------------------|---------------------------|---------|---------------------------|----------|--------------|
|                                                                                                           |             | Material | Lens Color  |                         |                  | Ee=<br>mW/cm <sup>2</sup> | Max.(V) | Ee=<br>mW/cm <sup>2</sup> | Max.(mA) |              |
| <br>3mm Round, T-1     | LPT035      | Silicon  | Water Clear | 10/15                   | 30               | 1                         | 0.4     | 1                         | 0.7      | L-67         |
| <br>5mm Round, T-1 3/4 | LPT055-B    | Silicon  | Black       | 10/15                   | 30               | 1                         | 0.4     | 1                         | 0.8      | L-68         |

### PIN PHOTODIODE

| Package Size                                                                                              | Part Number | Chip     |            | Rise & Fall<br>Time(nS) | V(BR)R<br>Min.(V) | IL                        |          | ID                        |          | Package Fig. |
|-----------------------------------------------------------------------------------------------------------|-------------|----------|------------|-------------------------|-------------------|---------------------------|----------|---------------------------|----------|--------------|
|                                                                                                           |             | Material | Lens Color |                         |                   | Ee=<br>mW/cm <sup>2</sup> | Typ.(uA) | Ee=<br>mW/cm <sup>2</sup> | Max.(nA) |              |
| <br>3mm Round, T-1 3/4 | LPD055-B    | Silicon  | Black      | 50/50                   | 33                | 1                         | 15       | 0                         | 10       | L-69         |

Package Dimensions unit : mm Tolerance : ± 0.25mm(0.01")

Fig. L-65  
LXX034

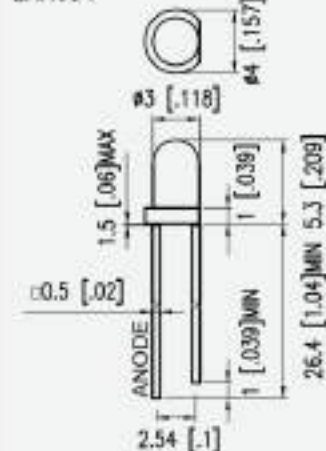


Fig. L-66  
LXX053

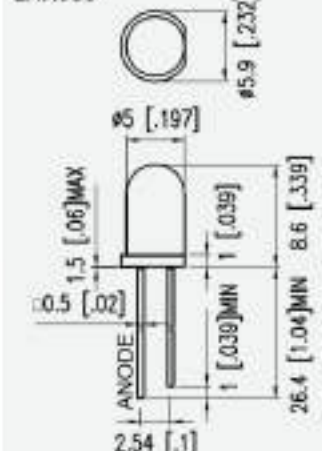


Fig. L-67  
LPT035

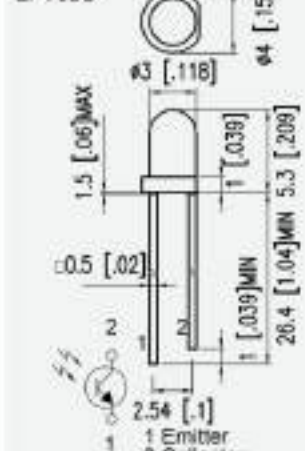


Fig. L-68  
LPT055-B

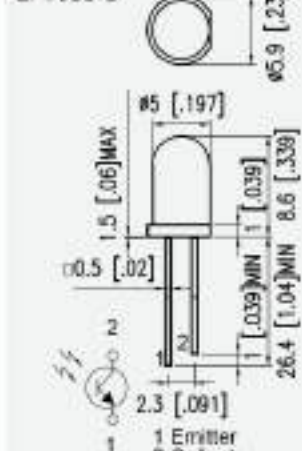
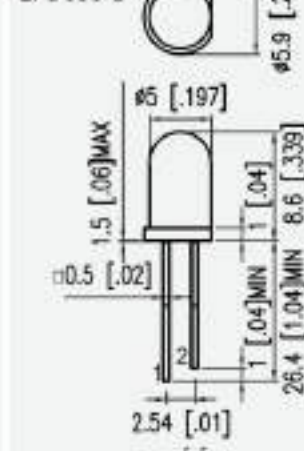


Fig. L-69  
LPD055-B



# raytrôn

## レイترون株式会社

砲弾型LED



レイترون株式会社

〒611-0041

京都府宇治市横島町大島13-7

<https://www.raytron-japan.co.jp>