

# SUPER-BRIGHT TYPE LED

Package Dimensions

## Features

1.

2.

3.

4.

- High intensity
- Wide viewing angle
- General purpose leads
- Reliable and rugged

### Absolute Maximum Ratings at Ta=25℃

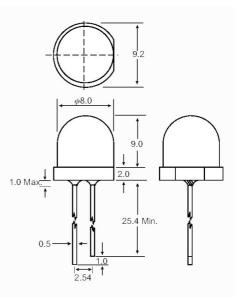
All dimensions are in millimeters (inches).

Protruded resin under flange is 1.0mm (.04") max.

Specifications are subject to change without notice.

Lead spacing is measured where the leads emerge from the package.

| Parameter                            | Max.                          | Unit           |  |
|--------------------------------------|-------------------------------|----------------|--|
| Power Dissipation                    | 100                           | mW             |  |
| Peak Forward Current                 | 100                           | mA             |  |
| (1/10 Duty Cycle, 0.1ms Pulse Width) | 100                           |                |  |
| Continuous Forward Current           | 40                            |                |  |
| Derating Linear From 50℃             | 0.4                           | <b>mA</b> / °C |  |
| Reverse Voltage                      | 5                             | V              |  |
| Operating Temperature Range          | -40°C to +80°C                |                |  |
| Storage Temperature Range            | -40°℃ to +80°℃                |                |  |
| Lead Soldering Temperature           | $260^\circ\!$ C for 5 Seconds |                |  |
| [4mm(.157") From Body]               |                               |                |  |
| Notes:                               |                               |                |  |



Unit: mm (inches) Tolerance: ±0.25mm (.010") max

|              |                |                    |                               |  |                       | (Ta=25℃)  |
|--------------|----------------|--------------------|-------------------------------|--|-----------------------|---|
| Part No.     | Emitting Color | Lens Color         | Peak<br>Wavelength<br>λp (nm) | Vf (V)<br>I <sub>f</sub> = 20mA<br>(Note E1) | lv (mcd)<br>(Note E2) | Viewing Angle<br>2 <i>θ</i> <sub>1/2</sub> (Deg)<br>(Note E3) |
|              |                |                    |                               | Min Typ                                      | Min Typ               |   |
| EL-48R541-BS | Red            | Red Diffused       | 660                           | 1.6 – 1.8                                    | 230 – 550             | 45  |
| EL-48G541-BS | Green          | Green Diffused     | 568                           | 1.7 – 2.2                                    | 45 – 130              | 45  |
| EL-48Y541-BS | Yellow         | Yellow Diffused    | 588                           | 1.7 – 2.0                                    | 220 – 500             | 45  |
| EL-480541-BS | Orange         | Orange Diffused    | 610                           | 1.7 – 2.1                                    | 200 – 450             | 45  |
| EL-48R342-BS | Red            | Water Clear        | 660                           | 1.6 – 1.8                                    | 180 – 850             | 30  |
| EL-48G342-BS | Green          | Water Clear        | 568                           | 1.7 – 2.2                                    | 150 – 400             | 30  |
| EL-48Y342-BS | Yellow         | Water Clear        | 588                           | 1.7 – 2.0                                    | 350 – 900             | 30  |
| EL-48O342-BS | Orange         | Water Clear        | 610                           | 1.7 – 2.1                                    | 180 – 450             | 30  |
| EL-48R343-BS | Red            | Red Transparent    | 660                           | 1.6 – 1.8                                    | 150 – 850             | 30  |
| EL-48G343-BS | Green          | Green Transparent  | 568                           | 1.7 – 2.2                                    | 120 – 400             | 30  |
| EL-48Y343-BS | Yellow         | Yellow Transparent | 588                           | 1.7 – 2.0                                    | 300 – 900             | 30  |

Parameter

#### Luminous Intensity

#### **Test Condition**

 $I_f = 20 \text{mA}$ 

I<sub>f</sub> = 20mA (Note E1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.) (Note E2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.)

 $I_{f}$  = 20mA (Note E3: The dominant wavelength ( $\lambda$ d) is derived from the CIE chromaticity diagram and represents

Viewing Angle Peak Emission Wavelength Dominant Wavelength

Spectral Line Half-Width Forward Voltage Reverse Current the single wavelength which defines the color of the device.)  $I_{\rm f}$  = 20mA  $I_{\rm f}$  = 20mA

I<sub>f</sub> = 20mA