

L-845/3IDT HIGH EFFICIENCY RED L-845/3GDT GREEN  
 L-845/3SRDT SUPER BRIGHT RED L-845/3YDT YELLOW

### Features

- UNIFORM LIGHT EMITTING AREA.
- EASILY MOUNTED ON P.C. BOARDS OR INDUSTRY STANDARD SOCKETS.
- FLUSH MOUNTABLE.
- EXCELLENT ON/OFF CONTRAST.
- CAN BE USED WITH PANELS AND LEGEND MOUNTS.
- MECHANICALLY RUGGED.
- I.C. COMPATIBLE.
- SUPER BRIGHT RED AVAILABLE.
- BOTTOM SURFACE OF EPOXY IS NOT FLAT.

### Description

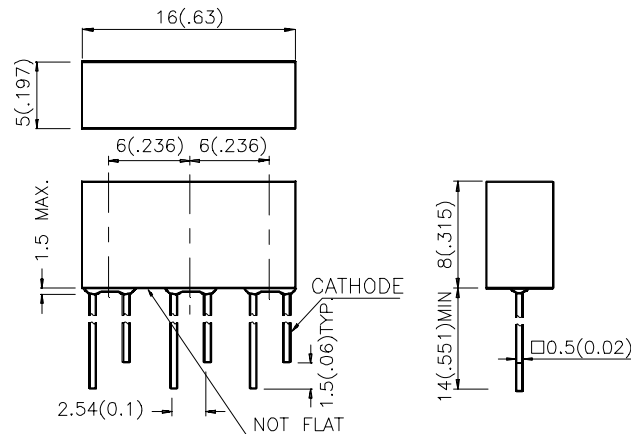
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice                            | Lens Type       | Iv (mcd)<br>@ 10 mA*20mA |      | Viewing<br>Angle |
|-------------|---------------------------------|-----------------|--------------------------|------|------------------|
|             |                                 |                 | Min.                     | Typ. | 2θ1/2            |
| L-845/3IDT  | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED    | 5                        | 10   | 120°             |
| L-845/3GDT  | Green (GaP)                     | GREEN DIFFUSED  | 5                        | 10   | 120°             |
| L-845/3YDT  | Yellow (GaAsP/GaP)              | YELLOW DIFFUSED | 5                        | 10   | 120°             |
| L-845/3SRDT | Super Bright RED (GaAlAs)       | RED DIFFUSED    | *20                      | *60  | 120°             |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. \* Luminous intensity with asterisk is measured at 20mA.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

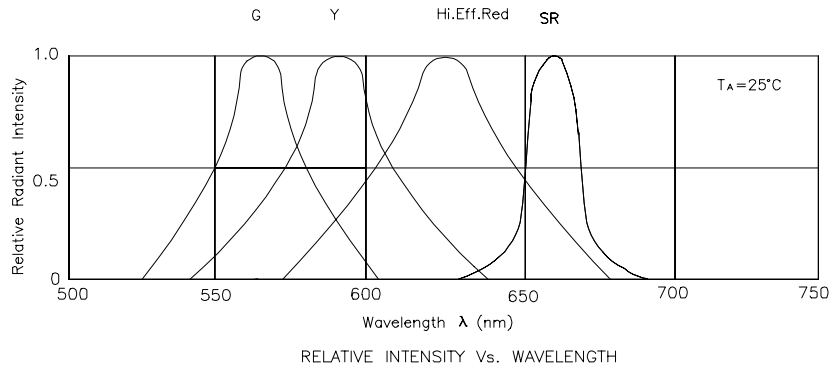
| Symbol            | Parameter               | Device   | Typ.                      | Max.                     | Units | Test Conditions |
|-------------------|-------------------------|--|---------------------------|--------------------------|-------|-----------------|
| λ <sub>peak</sub> | Peak Wavelength         | High Efficiency Red<br>Green<br>Yellow<br>Super Bright Red | 627<br>565<br>590<br>660  |                          | nm    | IF=20mA         |
| λ <sub>D</sub>    | Dominate Wavelength     | High Efficiency Red<br>Green<br>Yellow<br>Super Bright Red | 625<br>568<br>588<br>640  |                          | nm    | IF=20mA         |
| Δλ <sub>1/2</sub> | Spectral Line Halfwidth | High Efficiency Red<br>Green<br>Yellow<br>Super Bright Red | 45<br>30<br>35<br>20      |                          | nm    | IF=20mA         |
| C                 | Capacitance             | High Efficiency Red<br>Green<br>Yellow<br>Super Bright Red | 15<br>15<br>20<br>45      |                          | pF    | VF=0V;f=1MHz    |
| V <sub>F</sub>    | Forward Voltage         | High Efficiency Red<br>Green<br>Yellow<br>Super Bright Red | 2.0<br>2.2<br>2.1<br>1.85 | 2.5<br>2.5<br>2.5<br>2.5 | V     | IF=20mA         |
| I <sub>R</sub>    | Reverse Current         | All  |                           | 10                       | uA    | VR = 5V         |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

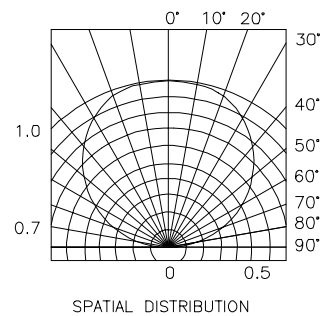
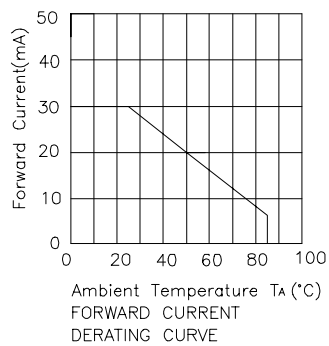
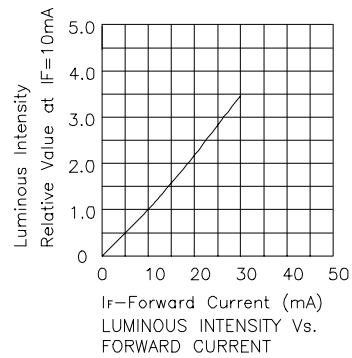
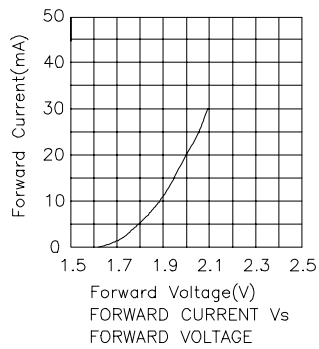
| Parameter                     | High Efficiency Red | Green | Yellow | Super Bright Red | Units |
|-------------------------------|---------------------|-------|--------|------------------|-------|
| Power dissipation             | 105                 | 105   | 105    | 100              | mW    |
| DC Forward Current            | 30                  | 25    | 30     | 30               | mA    |
| Peak Forward Current [1]      | 160                 | 140   | 140    | 155              | mA    |
| Reverse Voltage               | 5                   | 5     | 5      | 5                | V     |
| Operating/Storage Temperature | -40°C To +85°C      |       |        |                  |       |
| Lead Solder Temperature [2]   | 260°C For 5 Seconds |       |        |                  |       |

Notes:

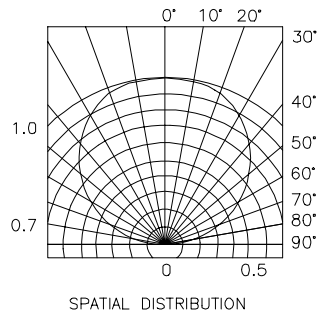
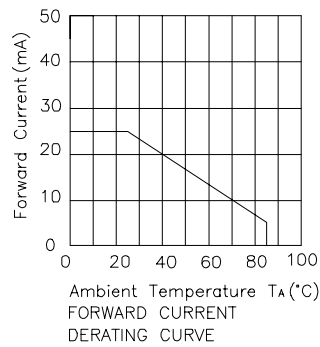
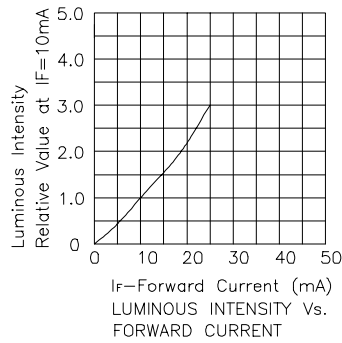
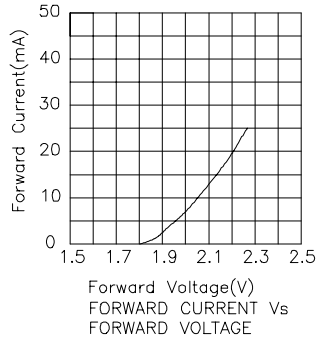
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



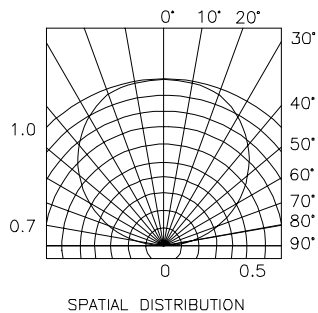
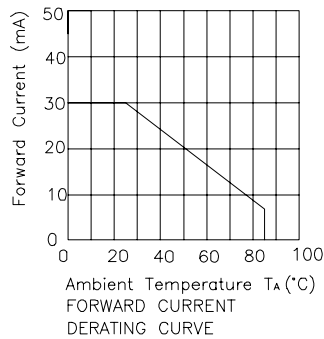
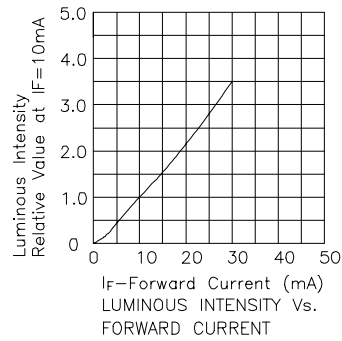
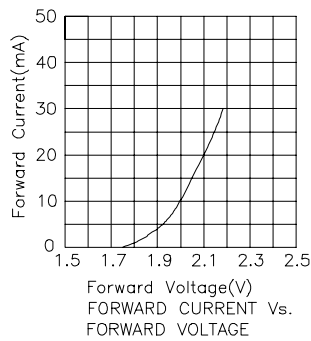
## High Efficiency Red L-845/3IDT



## Green L-845/3GDT



## Yellow L-845/3YDT



## Super Bright Red L-845/3SRDT

