

|              |                     |
|--------------|---------------------|
| L-934CB/1ID  | HIGH EFFICIENCY RED |
| L-934CB/1SRD | SUPER BRIGHT RED    |
| L-934CB/1YD  | YELLOW              |
| L-934CB/1GD  | GREEN               |

### Features

- PRE-TRIMMED LEADS FOR PC MOUNTING.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY LIFE MEASURED IN YEARS.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.

### Description

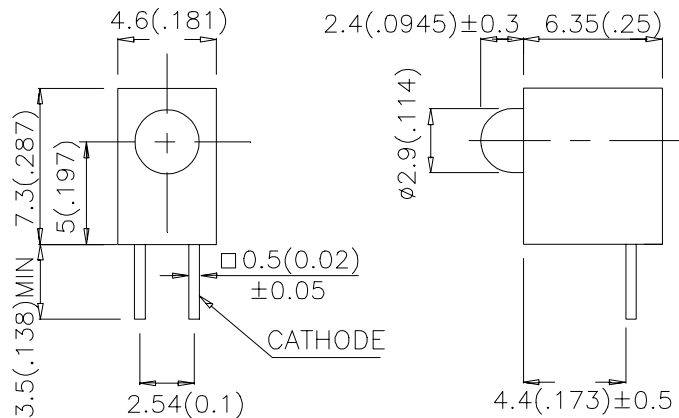
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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

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

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

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±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>@ 10mA*20mA |      | Viewing<br>Angle |
|--------------|---------------------------------|-----------------|-------------------------|------|------------------|
|              |                                 |                 | Min.                    | Typ. | 2θ1/2            |
| L-934CB/1ID  | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED    | 8                       | 20   | 60°              |
| L-934CB/1SRD | SUPER BRIGHT RED (GaAlAs)       | RED DIFFUSED    | *110                    | *300 | 60°              |
| L-934CB/1YD  | YELLOW(GaAsP/GaP)               | YELLOW DIFFUSED | 5                       | 15   | 60°              |
| L-934CB/1GD  | GREEN (GaP)                     | GREEN DIFFUSED  | 8                       | 20   | 60°              |

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

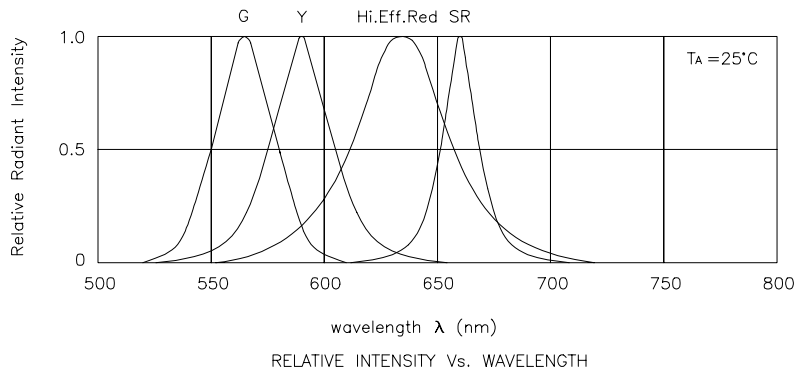
| Symbol            | Parameter                | Device   | Typ.                      | Max.                     | Units | Test Conditions           |
|-------------------|--------------------------|--|---------------------------|--------------------------|-------|---------------------------|
| λ <sub>peak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

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

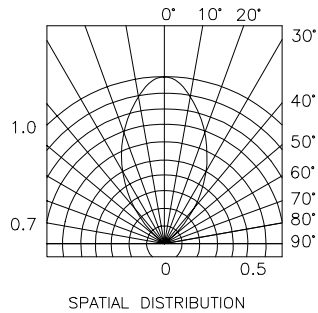
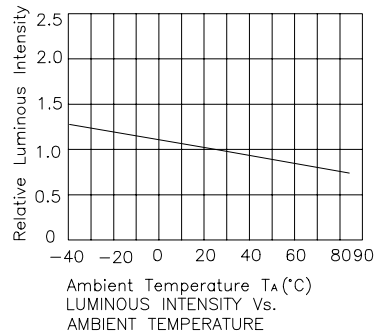
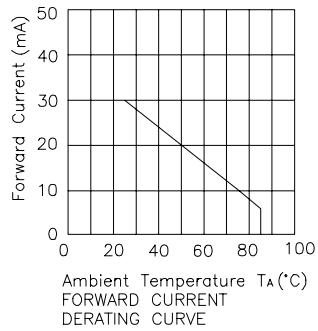
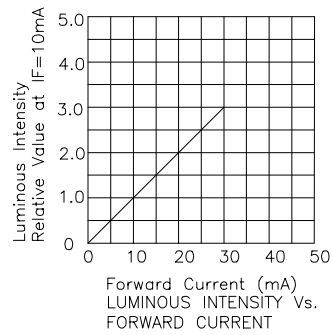
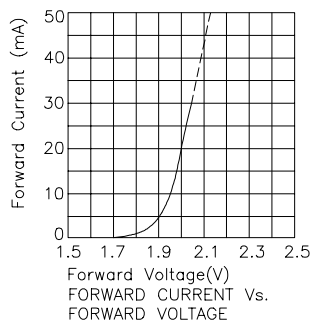
| Parameter                     | High Efficiency Red | Super Bright Red | Yellow | Green | Units |
|-------------------------------|---------------------|------------------|--------|-------|-------|
| Power dissipation             | 105                 | 100              | 105    | 105   | mW    |
| DC Forward Current            | 30                  | 30               | 30     | 25    | mA    |
| Peak Forward Current [1]      | 160                 | 155              | 140    | 140   | 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. 2mm below package base.

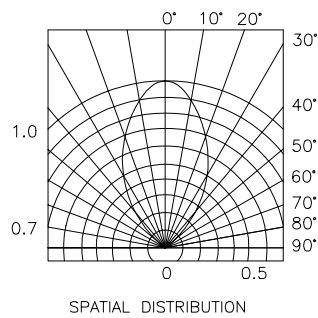
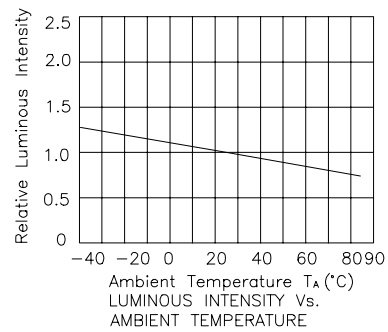
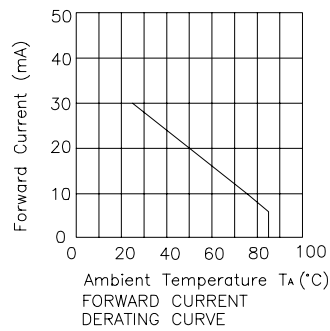
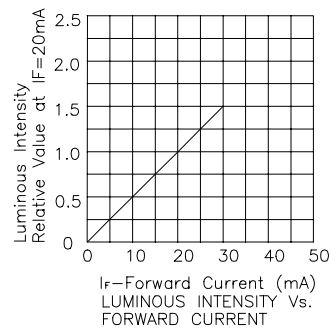
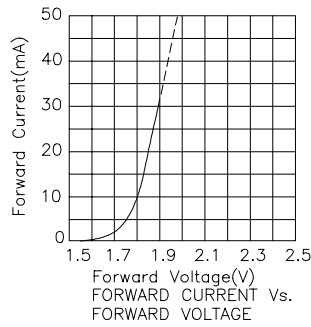


## High Efficiency Red L-934CB/1ID



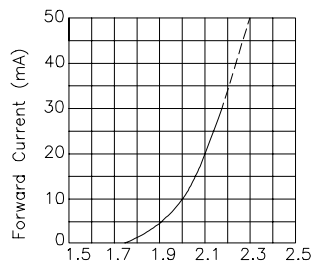
## Super Bright Red

## L-934CB/1SRD

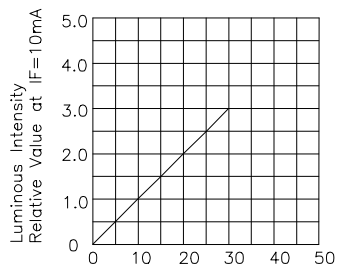


Yellow

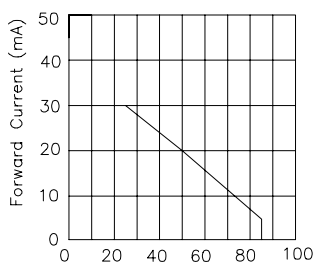
L-934CB/1YD



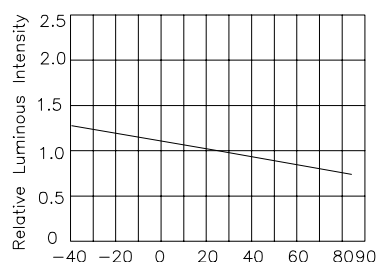
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



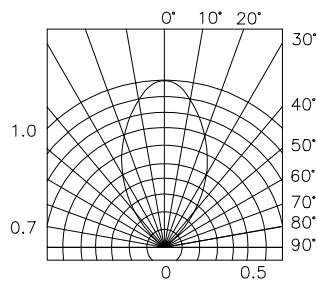
Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature  $T_A$ (°C)  
FORWARD CURRENT  
DERATING CURVE



Ambient Temperature  $T_A$ (°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Green L-934CB/1GD

