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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 3mm (T1) Package Discrete LED RED/GREEN, Bi-Color

# BIVAR

## 3SBCC-X

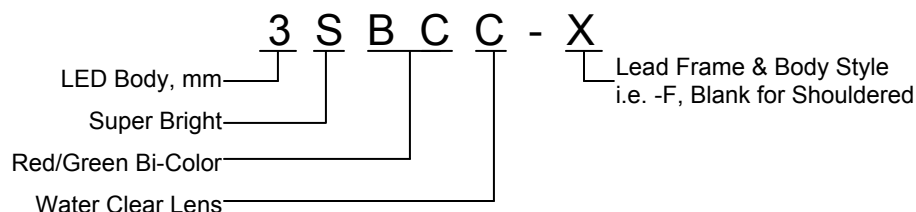
- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ 2-Lead Super Bright Bi-Color LED
- ◆ Water Clear Lens
- ◆ Available in Flange (F) and Shouldered (Blank) Lead Frame styles
- ◆ Ideal for Status Indication and Display



Bivar 3mm T1 Package Bi-Color LED is ideal for those applications where dual signals need to be displayed at the same location such as standby-on indication for server or computer peripherals. Bivar offers water clear LED lens for maximum light output and the 2-lead package simplifies the circuitry design where a reverse voltage is available. The Flanged LED is ideal for Panel Mount Clip & Ring assemblies and the Shouldered Lead frame LED has a built in strain relief feature which is ideal for Right Angle Holder assemblies that require lead bends. A long lead version is also available with a "-LL" suffix added to the part numbers.

| Part Number | Material    | Emitted Color | Peak. Wavelength<br>$\lambda_p$ (nm) TYP. | Lens Appearance | Viewing Angle |
|-------------|-------------|---------------|---|-----------------|---------------|
| 3SBCC-F     | GaAlAs/GaAs | RED           | 645nm                                     | Water Clear     | 20°           |
|             | GaP/GaP     | GREEN         | 568nm                                     |                 |               |
| 3SBCC       | GaAlAs/GaAs | RED           | 645nm                                     |                 |               |
|             | GaP/GaP     | GREEN         | 568nm                                     |                 |               |

## Part Number Designation

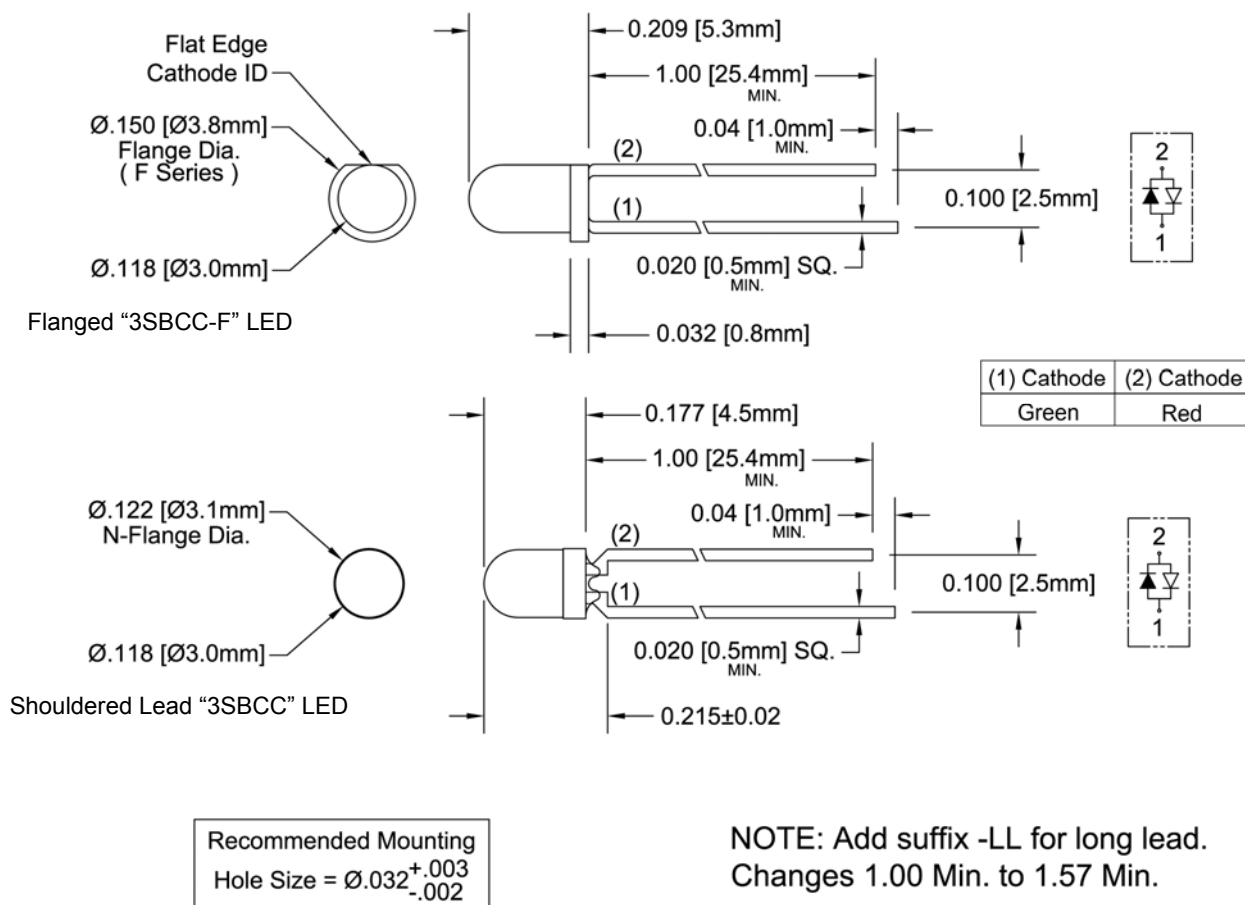


Bivar reserves the right to make changes at any time without notice.

# 3mm (T1) Package Discrete LED RED/GREEN, Bi-Color



## Outline Dimensions



### Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance:  $\pm 0.010$ " unless otherwise noted.
3. Tolerance of overall epoxy outline:  $\pm 0.020$ " unless otherwise noted.
4. Epoxy meniscus may extend to 0.060" max.

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## Absolute Maximum Ratings

T<sub>A</sub> = 25°C unless otherwise noted

|  |                              |
|--|------------------------------|
| Power Dissipation  | Red - 70 mW<br>Green - 80 mW |
| Forward Current ( DC )   | 30 mA                        |
| Peak Forward Current <sup>1</sup>  | 150 mA                       |
| Operating Temperature Range  | -40 ~ +85°C                  |
| Storage Temperature Range  | -40 ~ +100°C                 |
| Lead Soldering Temperature ( 3 mm from the base of the epoxy bulb ) <sup>2</sup> | 260°C                        |

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec. 2. Solder time less than 5 seconds at temperature extreme.

## Electrical / Optical Characteristics

T<sub>A</sub> = 25°C & I<sub>F</sub> = 20 mA unless otherwise noted

| Part Number | Emitted Color | Forward Voltage (V) <sup>1</sup> |     |     | Recommend Forward Current (mA) |     |     | Reverse Current (μA) | Dominant Wavelength (nm) <sup>2</sup> |     |     | Luminous Intensity I <sub>v</sub> (mcd) |     |     | Viewing Angle 2 Θ <sup>1</sup> / <sub>2</sub> (deg) |
|-------------|---------------|----------------------------------|-----|-----|--------------------------------|-----|-----|----------------------|---------------------------------------|-----|-----|---|-----|-----|---|
|             |               | MIN                              | TYP | MAX | MIN                            | TYP | MAX | MAX                  | MIN                                   | TYP | MAX | MIN                                     | TYP | MAX | TYP   |
| 3SBCC-F     | Red           | /                                | 1.7 | 2.4 | /                              | 20  | /   | /                    | /                                     | /   | /   | /                                       | 100 | /   | 20  |
|             | Green         | /                                | 2.1 | 2.8 |                                |     |     |                      |                                       |     |     |   |     |     |   |
| 3SBCC       | Red           | /                                | 1.7 | 2.4 | /                              | 20  | /   | /                    | /                                     | /   | /   | /                                       | 100 | /   | 20  |
|             | Green         | /                                | 2.1 | 2.8 |                                |     |     |                      |                                       |     |     |   |     |     |   |

Notes: 1. Tolerance of forward voltage : ±0.05V. 2. Tolerance of dominant wavelength : ±1.0nm.

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## Typical Electrical / Optical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

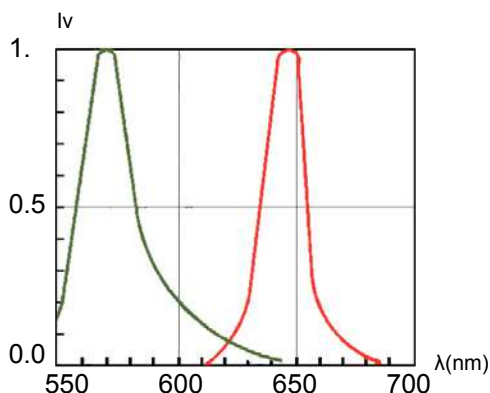


Fig. 1 Relative Luminous Intensity vs. Wavelength  
@ 20mA

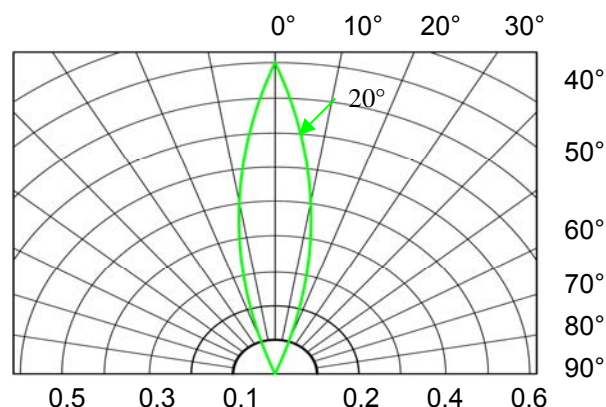


Fig. 2 Directivity Radiation Diagram

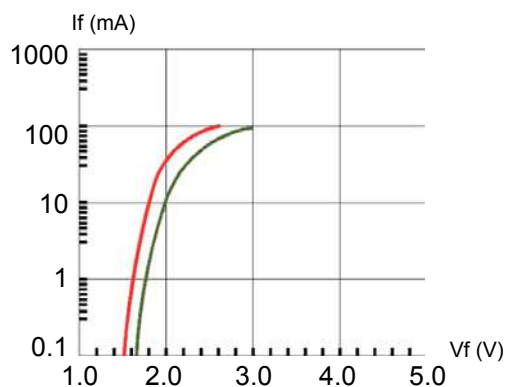


Fig. 3 Forward Current vs. Forward Voltage

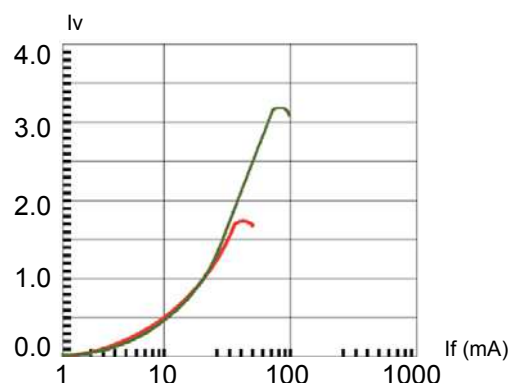


Fig. 4 Relative Luminous Intensity vs. Forward Current  
Normalize @ 20 mA

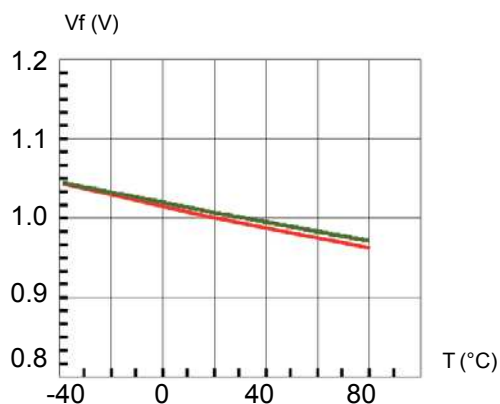


Fig. 5 Forward Voltage vs. Temperature

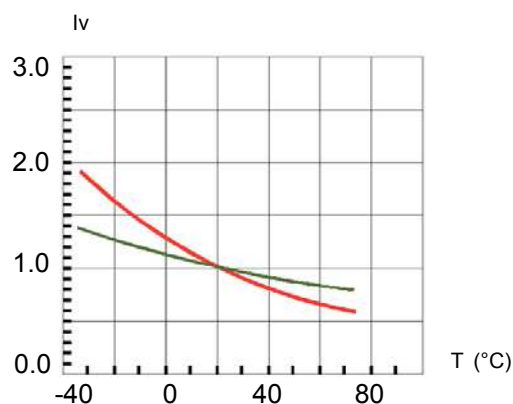


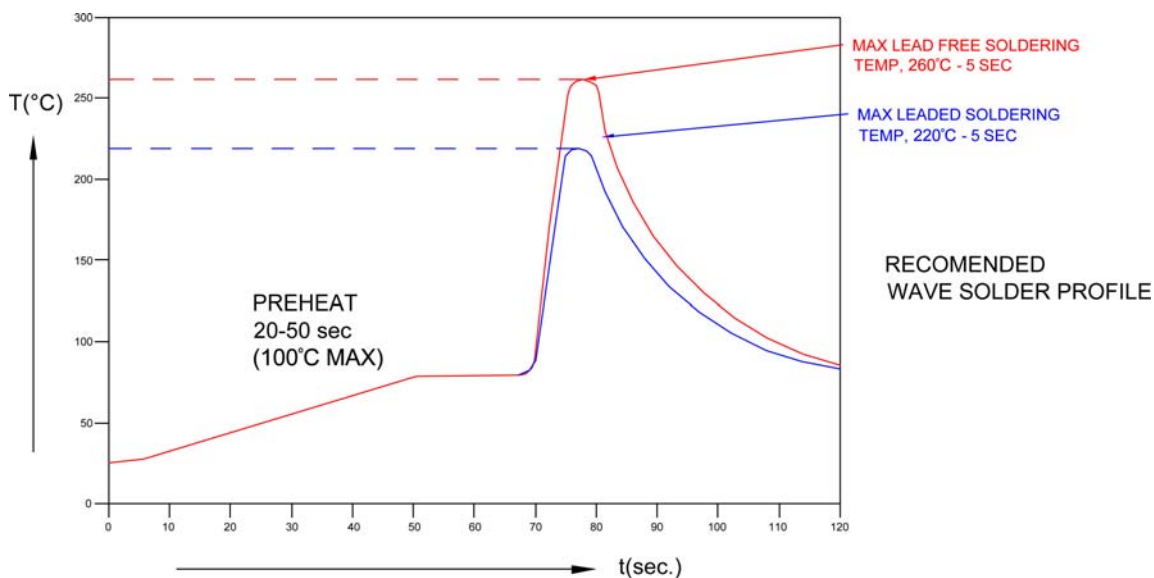
Fig. 6 Relative Luminous Intensity vs. Temperature

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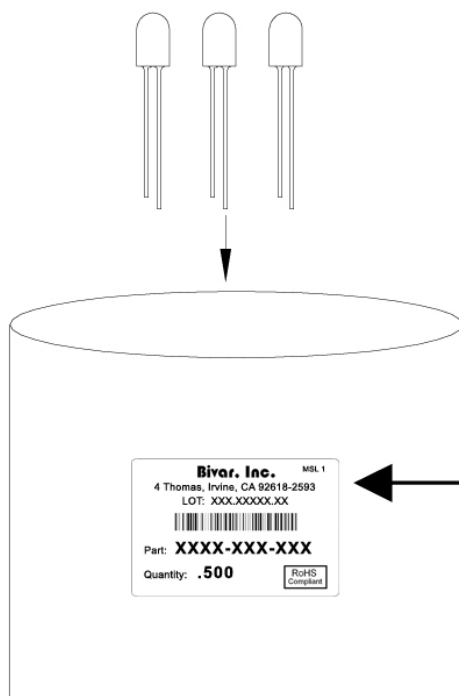


## Recommended Soldering Conditions



| Recommended Lead Free Wave Soldering Profile   |   |
|--|---|
| Preheat Temperature: 100°C Max.  | Peak Temperature: 260°C Max.            |
| Preheat Time: 20 ~ 50 Seconds  | Solder Time Above 217°C: 5 Seconds Max. |
| Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source. |   |

## Packaging and Labeling Plan



|                                 |       |
|---------------------------------|-------|
| <b>Bivar, Inc.</b>              | MSL 1 |
| 4 Thomas, Irvine, CA 92618-2593 |       |
| LOT: XXX.XXXXX.XX               |       |
|                                 |       |
| Part: <b>XXXX-XXX-XXX</b>       |       |
| Quantity: <b>.500</b>           |       |
| <div>RoHS<br/>Compliant</div>   |       |

AntiStatic Poly Bag with Desiccant  
(500 pcs Max. per Bag)

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