

# 5mm (T1 ¾) Package Discrete LED RED/GREEN, Bi-Color

# BIVAR

## 5BC-3-CA-X

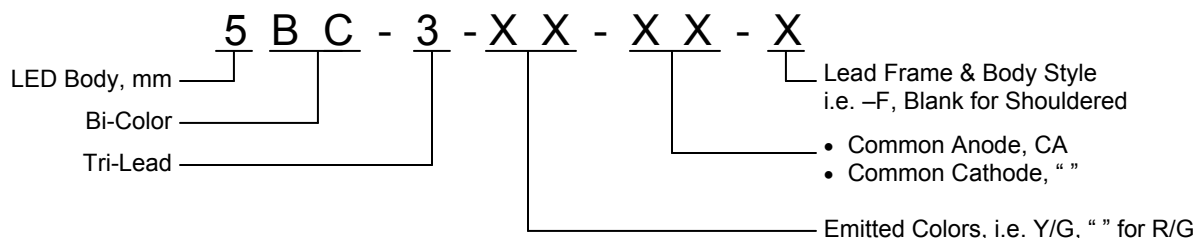
- ◆ Industry Standard 5mm (T1 ¾) Package
- ◆ RoHS Compliant
- ◆ White Diffused Lens
- ◆ Available in Flange (F) and Shouldered (Blank) Lead Frame styles
- ◆ 3-Lead Bi-Color LED
- ◆ Ideal for Status Indication and Display



Bivar 5mm T1 ¾ Package Tri-Color LED is ideal for those applications where multiple signals need to be displayed at the same location such as standby-on indication for server or computer peripherals. When needed, the 3rd color signal could be created by powering up both chips together for on-off-standby applications that require three distinct signals. Bivar offers white diffused LED lens for uniform light output. The Flange 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. This 3-Lead Bi-Color LED package comes in a common anode Lead Frame configuration.

| Part Number | Material  | Emitted Color | Peak. Wavelength<br>$\lambda_p$ (nm) TYP. | Lens Appearance | Viewing Angle |
|-------------|-----------|---------------|-------------------------------------------|-----------------|---------------|
| 5BC-3-CA-F  | GaAsP/GaP | RED           | 625nm                                     | White Diffused  | 40°           |
|             | GaP/GaP   | GREEN         | 568nm                                     |                 |               |
| 5BC-3-CA    | GaAsP/GaP | RED           | 625nm                                     |                 |               |
|             | GaP/GaP   | GREEN         | 568nm                                     |                 |               |

## Part Number Designation

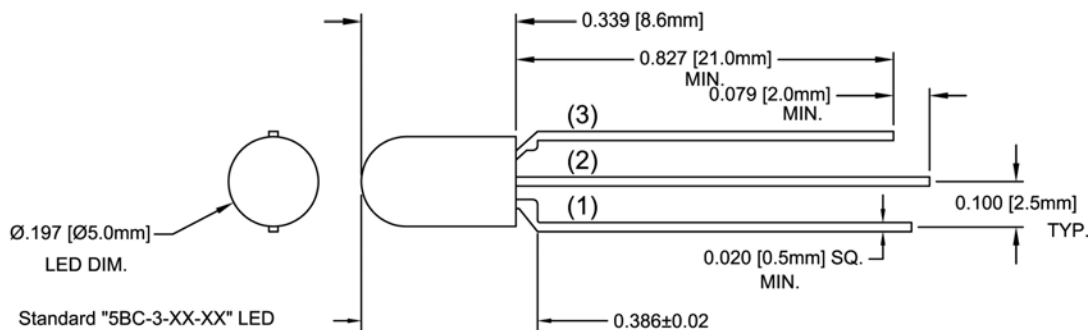
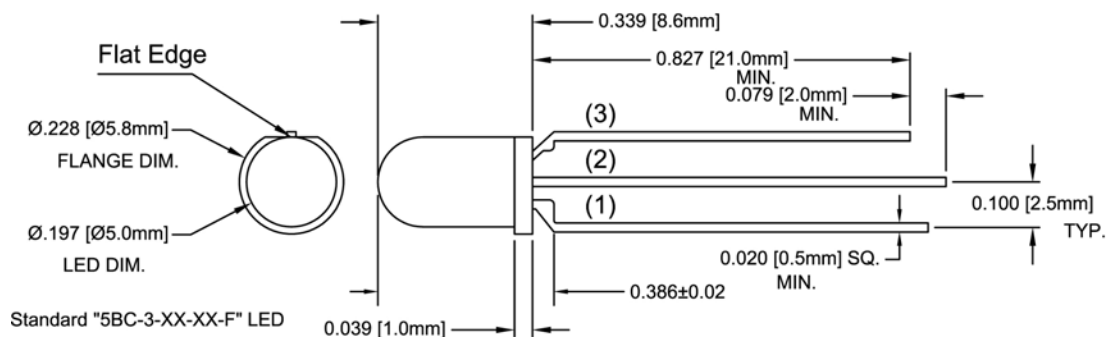


Bivar reserves the right to make changes at any time without notice.

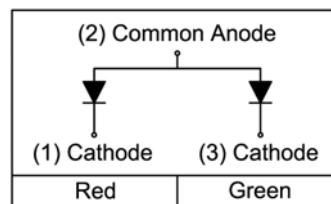
# 5mm (T1 3/4) Package Discrete LED RED/GREEN, Bi-Color



## Outline Dimensions



Recommended Mounting  
Hole Size =  $\text{Ø}0.032^{+0.003}_{-0.002}$



### 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                                                                | 80 mW        |
| Forward Current ( DC )                                                           | 30 mA        |
| Peak Forward Current <sup>1</sup>                                                | 150 mA       |
| Operating Temperature Range                                                      | -25 ~ +85°C  |
| Storage Temperature Range                                                        | -30 ~ +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 1/2 (deg) |
|-------------|---------------|----------------------------------|-----|-----|--------------------------------|-----|-----|----------------------|---------------------------------------|-----|-----|-----------------------------------------|-----|-----|-----------------------------|
|             |               | MIN                              | TYP | MAX | MIN                            | TYP | MAX | MAX                  | MIN                                   | TYP | MAX | MIN                                     | TYP | MAX | TYP                         |
| 5BC-3-CA-F  | Red           | /                                | 2.0 | 2.8 | /                              | 20  | /   | 100                  | /                                     | /   | /   | /                                       | 4   | /   | 40                          |
|             | Green         | /                                | 2.1 | 2.8 |                                |     |     |                      |                                       |     |     |                                         |     |     |                             |
| 5BC-3-CA    | Red           | /                                | 2.0 | 2.8 | /                              | 20  | /   | 100                  | /                                     | /   | /   | /                                       | 4   | /   | 40                          |
|             | Green         | /                                | 2.1 | 2.8 |                                |     |     |                      |                                       |     |     |                                         |     |     |                             |

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

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# 5mm (T1 3/4) Package Discrete LED RED/GREEN, Bi-Color



## Typical Electrical / Optical Characteristics - Red

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

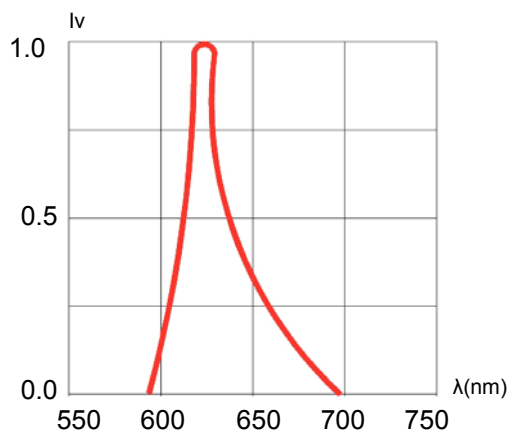


Fig. 1 Relative Luminous Intensity vs. Wavelength  
@ 20mA

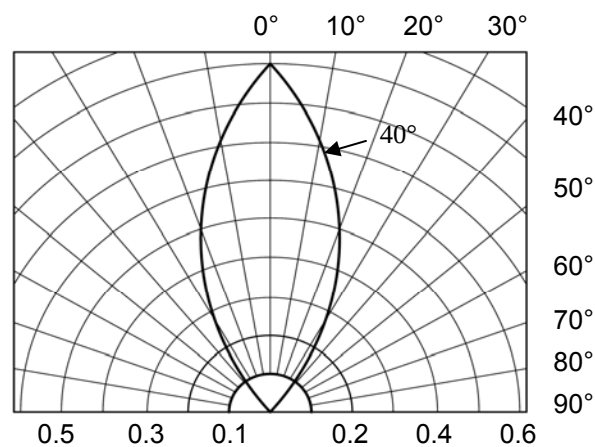


Fig. 2 Directivity Radiation Diagram

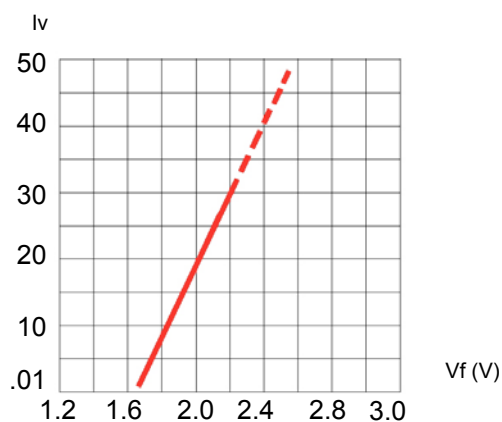


Fig. 3 Relative Intensity (10mA) vs.  
Forward Voltage

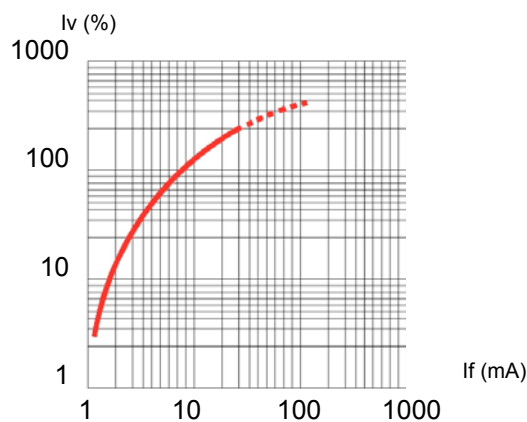


Fig. 4 Relative Luminous Intensity (%) vs.  
Forward Current

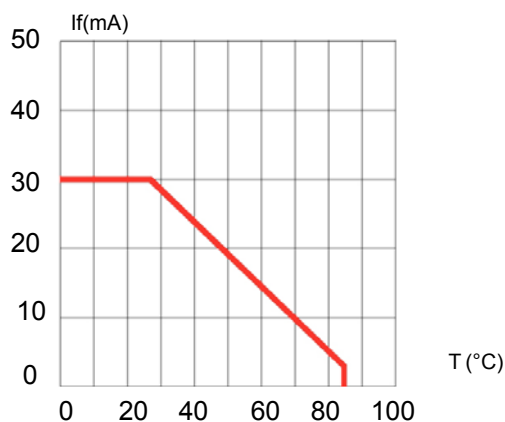


Fig. 5 Forward Current vs. Temperature

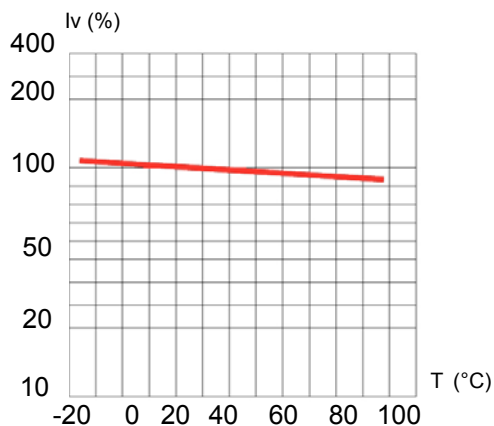


Fig. 6 Relative Intensity (%) vs. Temperature  
@ 20 mA

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## Typical Electrical / Optical Characteristics - Green

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

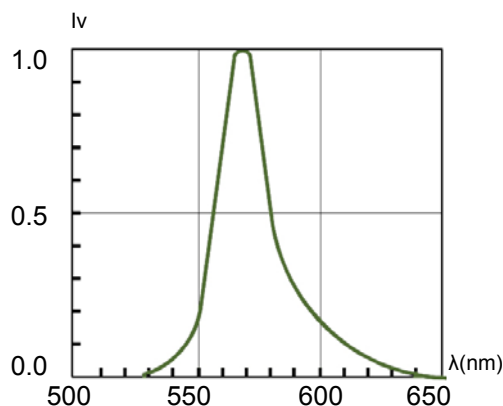


Fig. 1 Relative Luminous Intensity vs. Wavelength  
@ 20mA

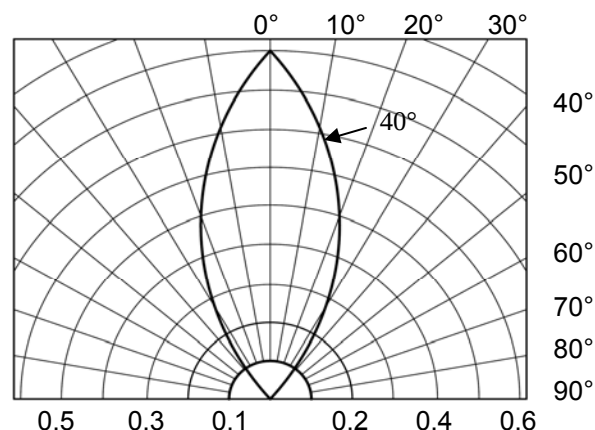


Fig. 2 Directivity Radiation Diagram

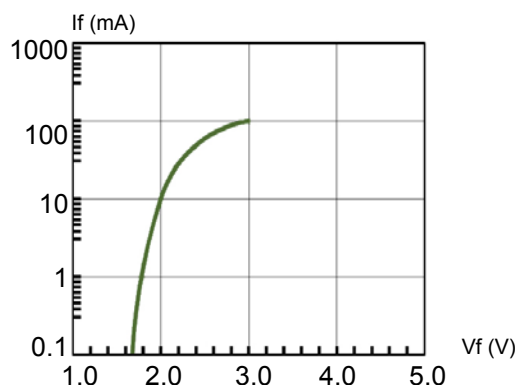


Fig. 3 Forward Current vs. Forward Voltage

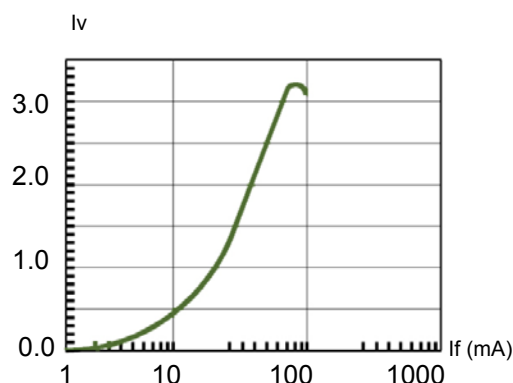


Fig. 4 Relative Luminous Intensity vs. Forward Current  
Normalize @ 20 mA

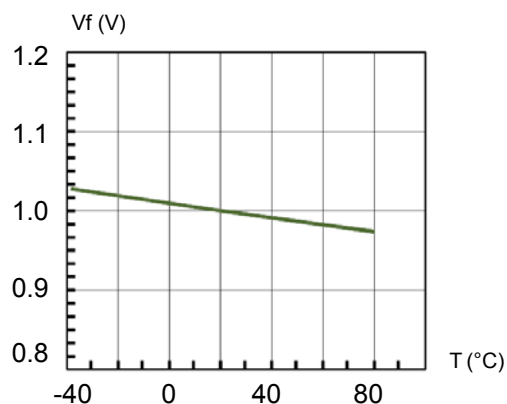


Fig. 5 Forward Voltage vs. Temperature

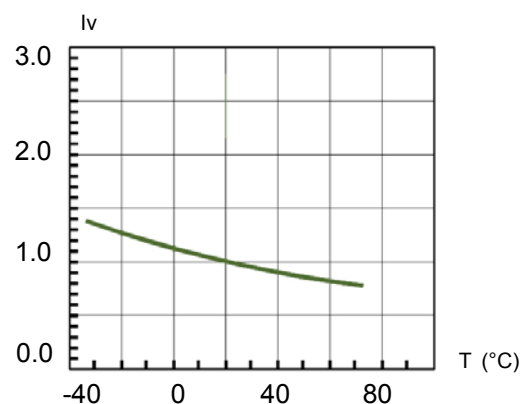


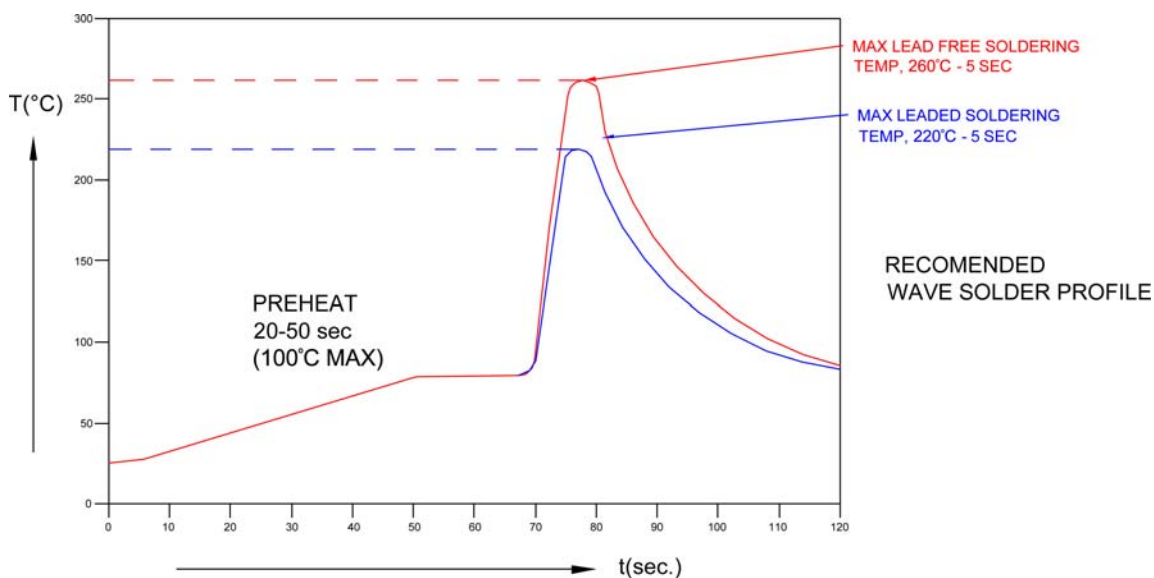
Fig. 6 Relative Luminous Intensity vs. Temperature

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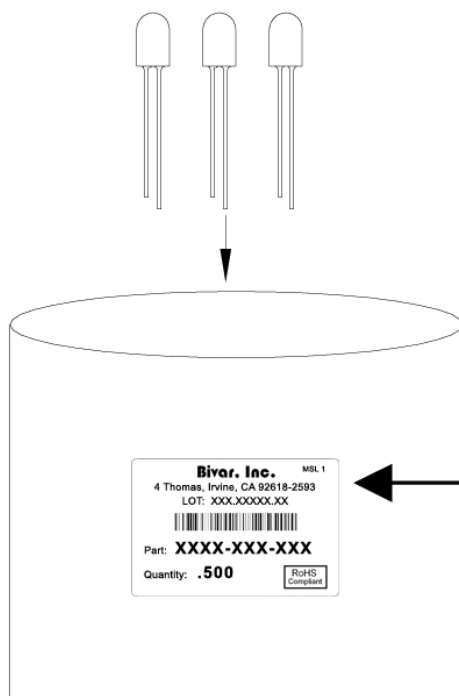


## Recommended Soldering Conditions



| 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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# AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit [www.ameya360.com](http://www.ameya360.com)

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