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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

## 3BC-3-F

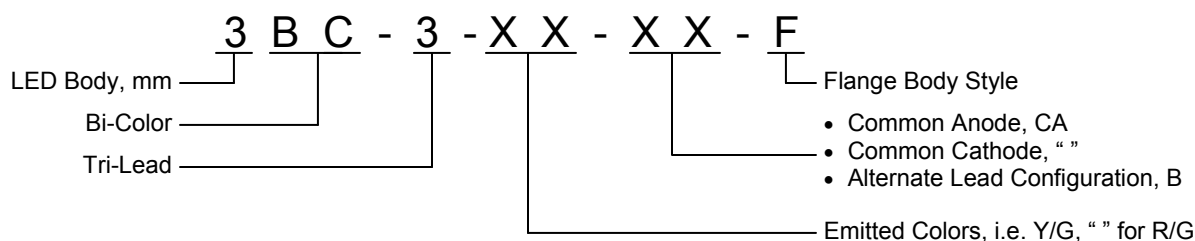
- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ White Diffused Lens
- ◆ Available in Flange (F) Style
- ◆ 3-Lead Bi-Color LED
- ◆ Ideal for Status Indication and Display



Bivar 3mm T1 Package 3-Lead Bi-Color 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. This 3-Lead Bi-color LED package comes in a common cathode Lead Frame configuration.

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

## Part Number Designation

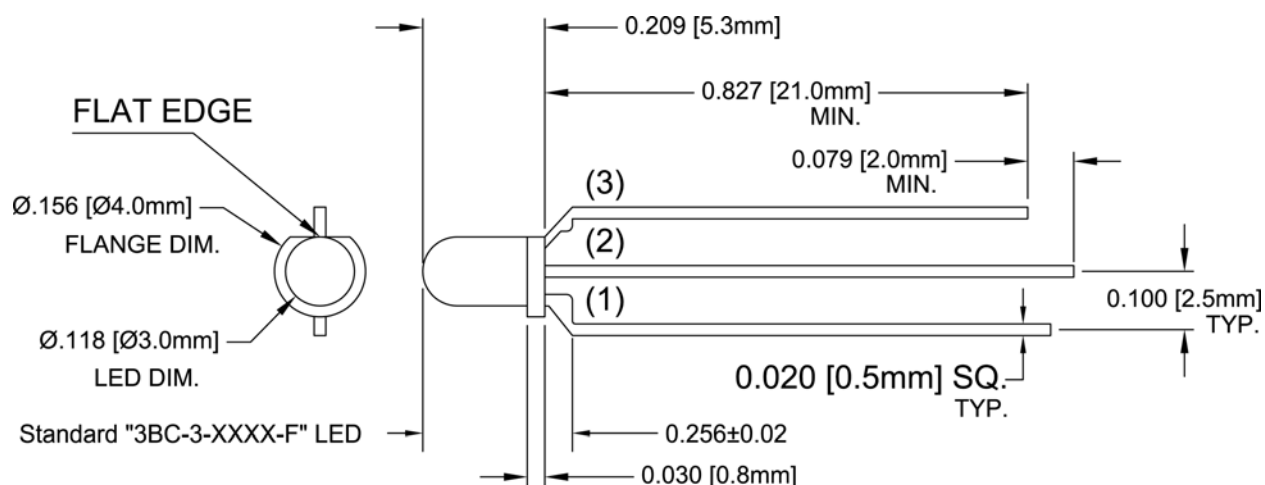


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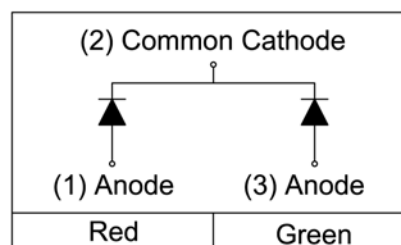
# 3mm (T1) Package Discrete LED RED/GREEN, Bi-Color



## Outline Dimensions



Recommended Mounting  
Hole Size =  $\text{Ø}.032^{+.003}_{-.002}$



### 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 ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
3BC-3-F	Red	/	2.0	2.8	/	20	/	100	/	/	/	/	30	/	40
	Green	/	2.1	2.8					/	/	/	/	30	/	

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

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



## Typical Electrical / Optical Characteristics - Red

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

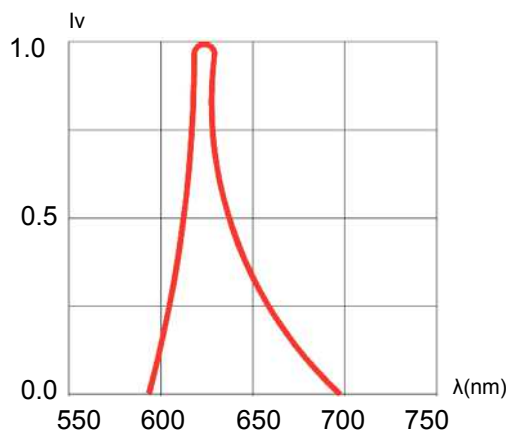


Fig. 1 Relative Luminous Intensity vs. Wavelength  
@ 20mA

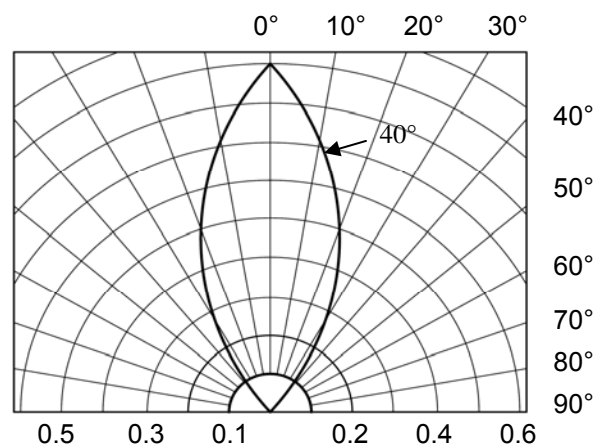


Fig. 2 Directivity Radiation Diagram

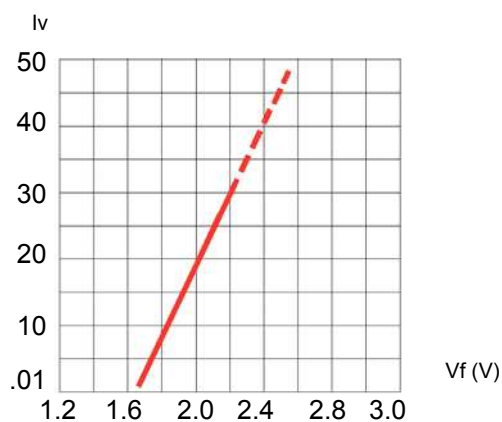


Fig. 3 Relative Intensity (10mA) vs.  
Forward Voltage

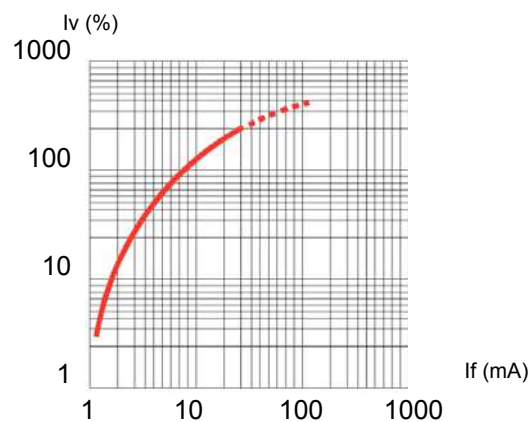


Fig. 4 Relative Luminous Intensity (%) vs.  
Forward Current

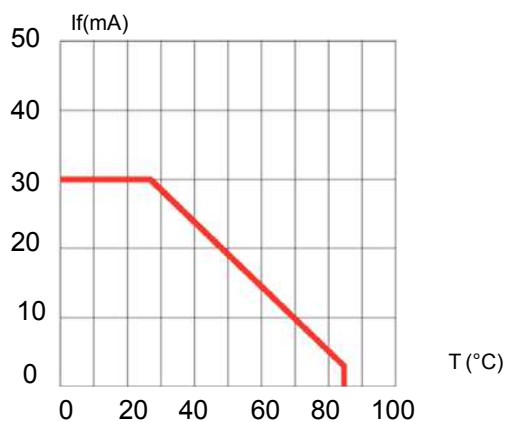


Fig. 5 Forward Current vs. Temperature

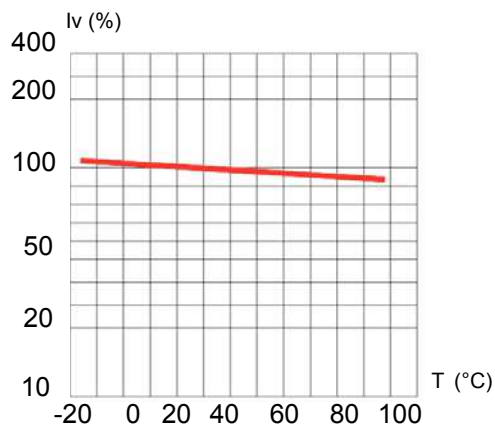


Fig. 6 Relative Intensity (%) vs. Temperature  
@ 20 mA

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



## Typical Electrical / Optical Characteristics - Green

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

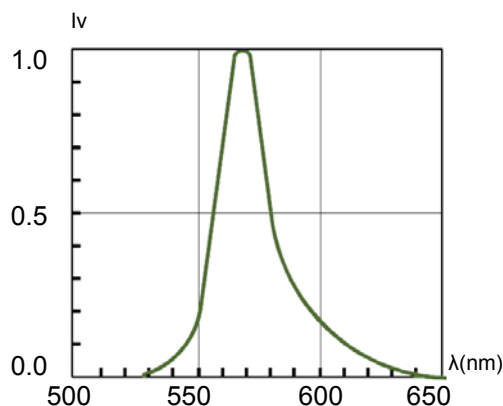


Fig. 1 Relative Luminous Intensity vs. Wavelength  
@ 20mA

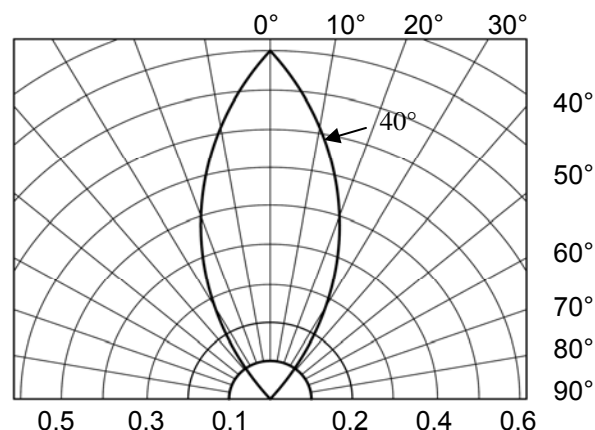


Fig. 2 Directivity Radiation Diagram

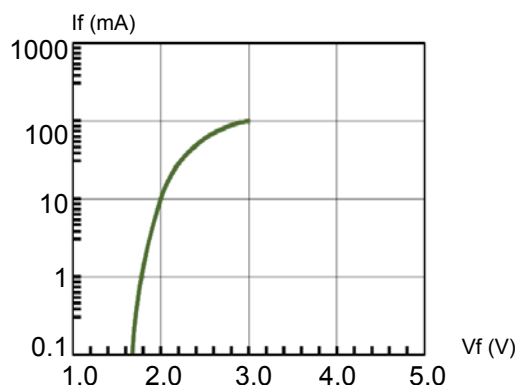


Fig. 3 Forward Current vs. Forward Voltage

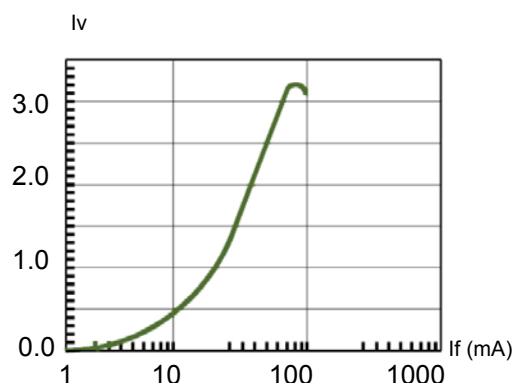


Fig. 4 Relative Luminous Intensity vs. Forward Current  
Normalize @ 20 mA

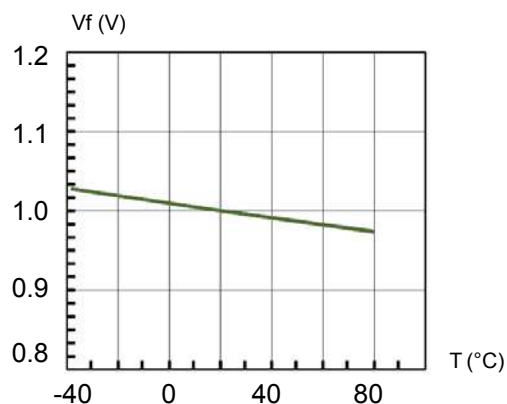


Fig. 5 Forward Voltage vs. Temperature

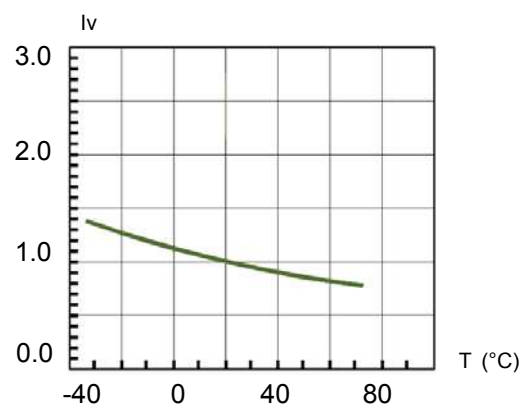


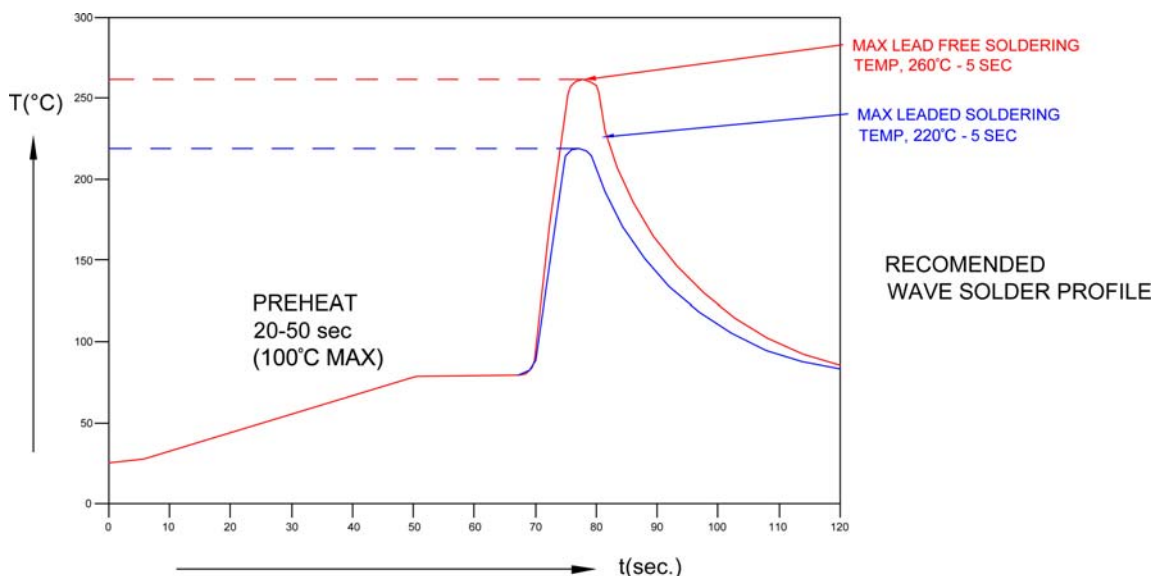
Fig. 6 Relative Luminous Intensity vs. Temperature

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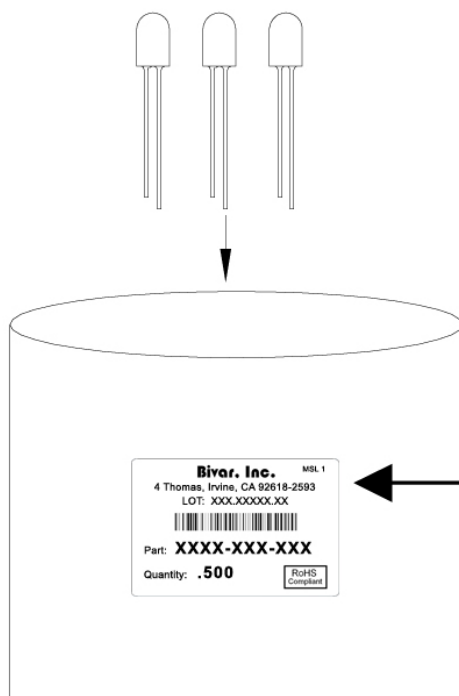


## Recommended Soldering Conditions



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 Compliant</div>	

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

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