

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

BIVAR

3BC-X

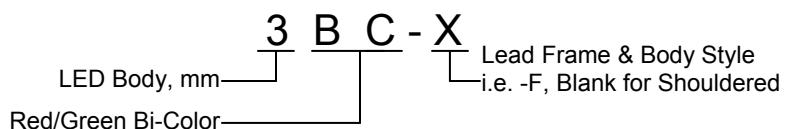
- ♦ Industry Standard 3mm (T1) Package
- ♦ RoHS Compliant
- ♦ 2-Lead Bi-Color LED
- ♦ White Diffused Lens
- ♦ Available in Flange (**F**) and Shouldered (**Blank**) Lead Frame styles
- ♦ Ideal for Status Indication and Display



Bivar 3mm T1 Package 2-Lead 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 white diffused LED lens for uniform 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.

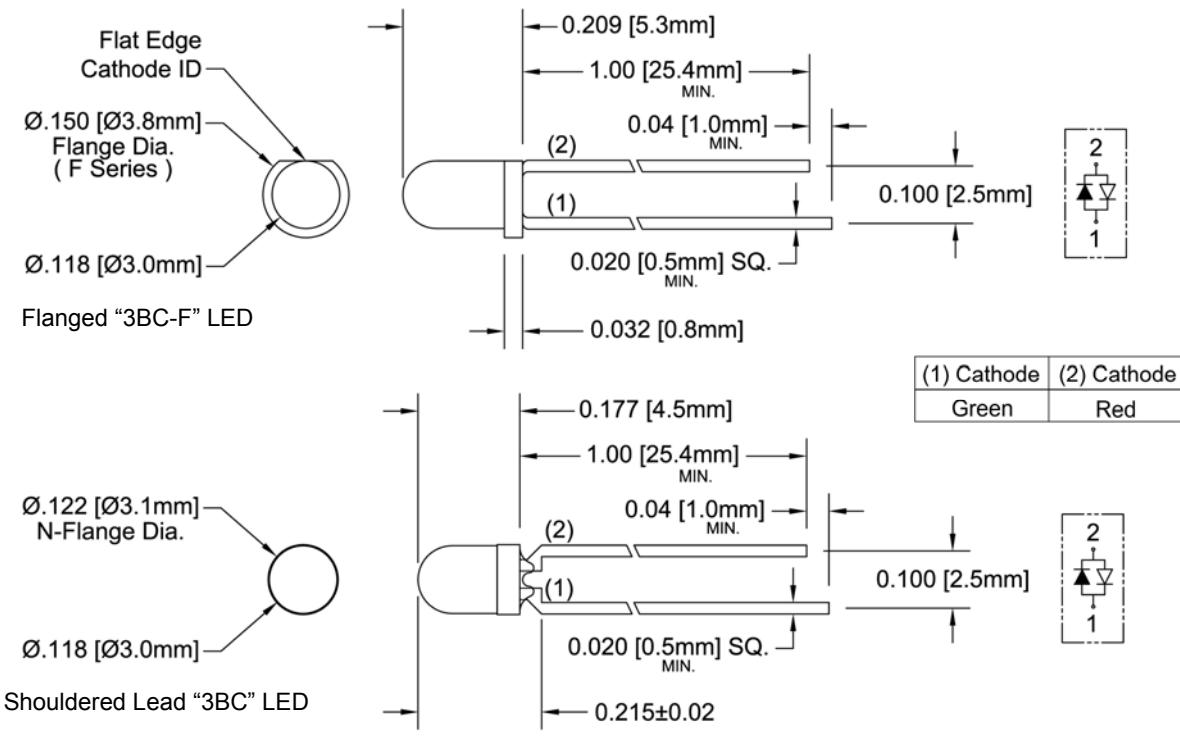
Part Number	Material	Emitted Color	Peak. Wavelength $\lambda_{p}(\text{nm})$ TYP.	Lens Appearance	Viewing Angle
3BC-F	GaAsP/Gap	RED	625nm	White Diffused	45°
	Gap/Gap	GREEN	568nm		
3BC	GaAsP/Gap	RED	625nm		
	Gap/Gap	GREEN	568nm		

Part Number Designation



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

Outline Dimensions



Recommended Mounting
Hole Size = $\varnothing 0.032^{+.003}_{-.002}$

NOTE: Add suffix -LL for long lead.
Changes 1.00 Min. to 1.57 Min.

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_A = 25°C unless otherwise noted

Power Dissipation	80 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	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) ²	260°C

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

Electrical / Optical Characteristics

T_A = 25°C & I_F = 20 mA unless otherwise noted

Part Number	Emitted Color	Forward Voltage (V) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _V (mcd)			Viewing Angle 2 Θ ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX		MIN	TYP	MAX	MIN	TYP	MAX	
3BC-F	Red	/	2.0	2.8	/	20	/	100	/	/	/	3	6	15	45
	Green	/	2.1	2.8					/	/	/	3	6	15	
3BC	Red	/	2.0	2.8	/	20	/	100	/	/	/	3	6	15	45
	Green	/	2.1	2.8					/	/	/	3	6	15	

Notes: 1. Tolerance of forward voltage : $\pm 0.05V$. 2. Tolerance of dominant wavelength : $\pm 1.0\text{nm}$.

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Typical Electrical / Optical Characteristics - Red

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

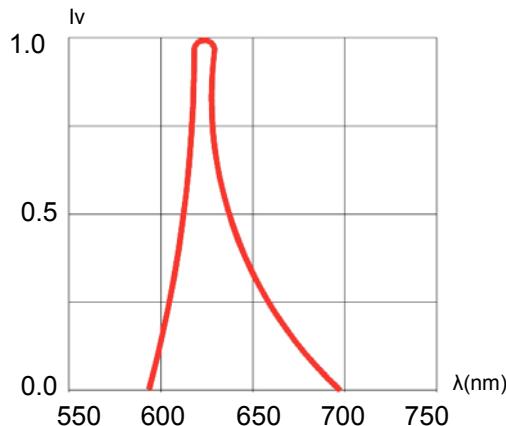


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

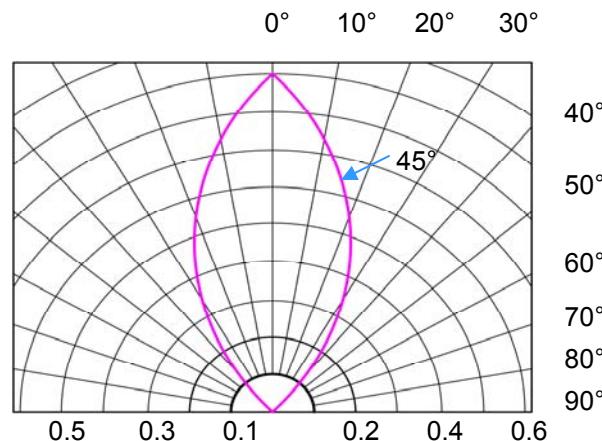


Fig. 2 Directivity Radiation Diagram

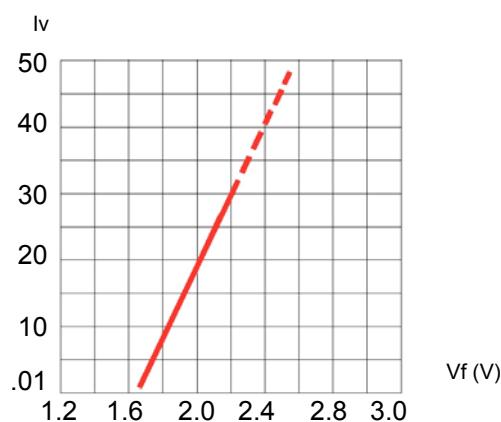


Fig. 3 Relative Intensity (10mA) vs.
Forward Voltage

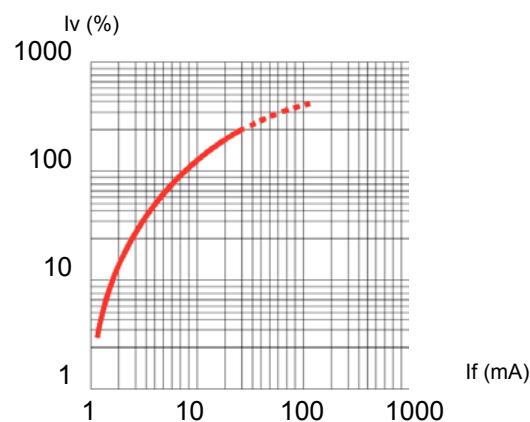


Fig. 4 Relative Luminous Intensity (%) vs.
Forward Current

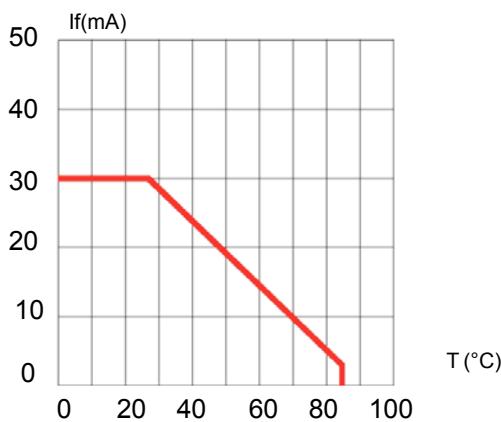


Fig. 5 Forward Current vs. Temperature

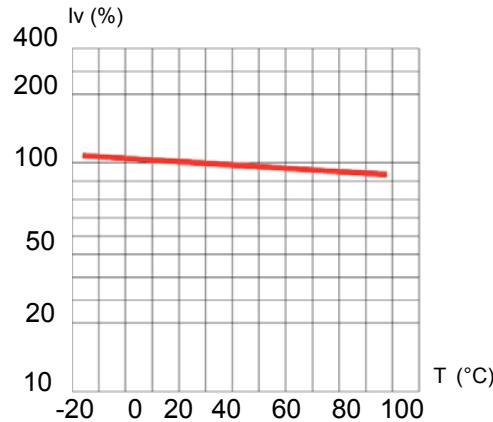


Fig. 6 Relative Intensity (%) vs. Temperature
@ 20 mA

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Typical Electrical / Optical Characteristics - Green

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

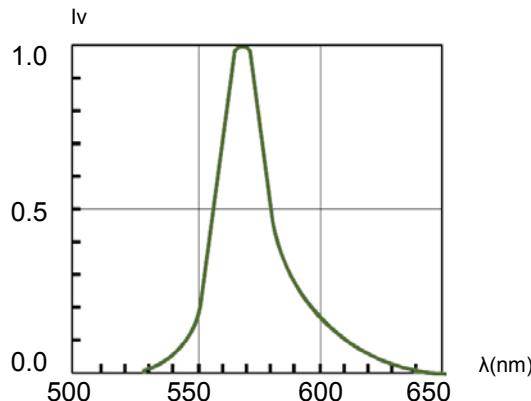


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

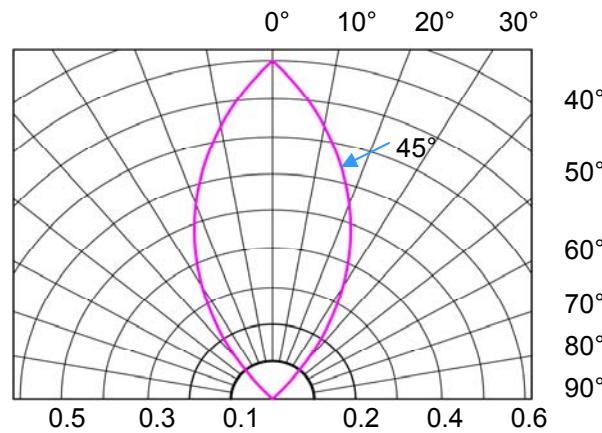


Fig. 2 Directivity Radiation Diagram

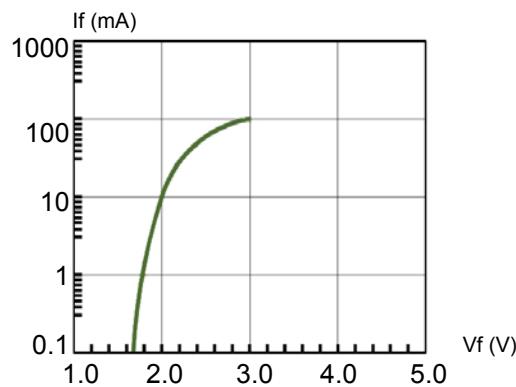


Fig. 3 Forward Current vs. Forward Voltage

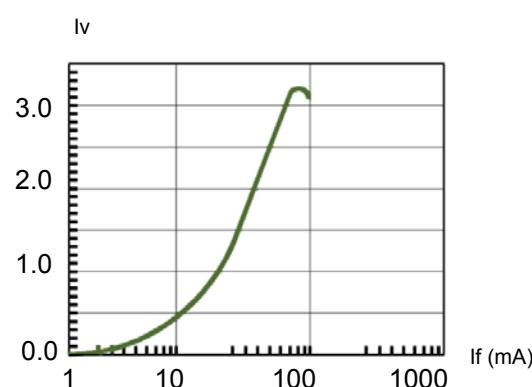


Fig. 4 Relative Luminous Intensity vs. Forward Current
Normalize @ 20 mA

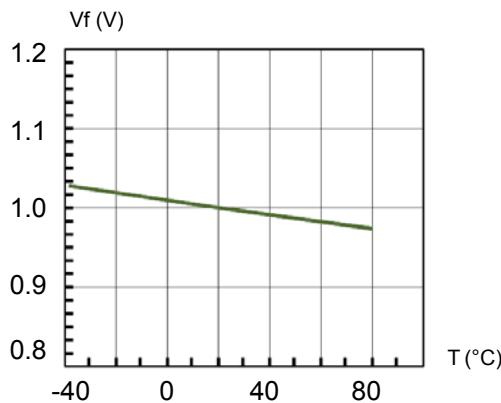


Fig. 5 Forward Voltage vs. Temperature

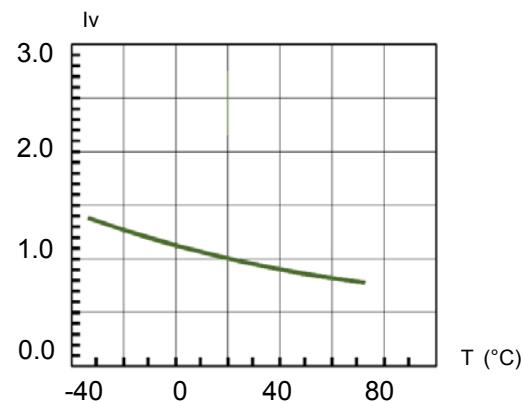


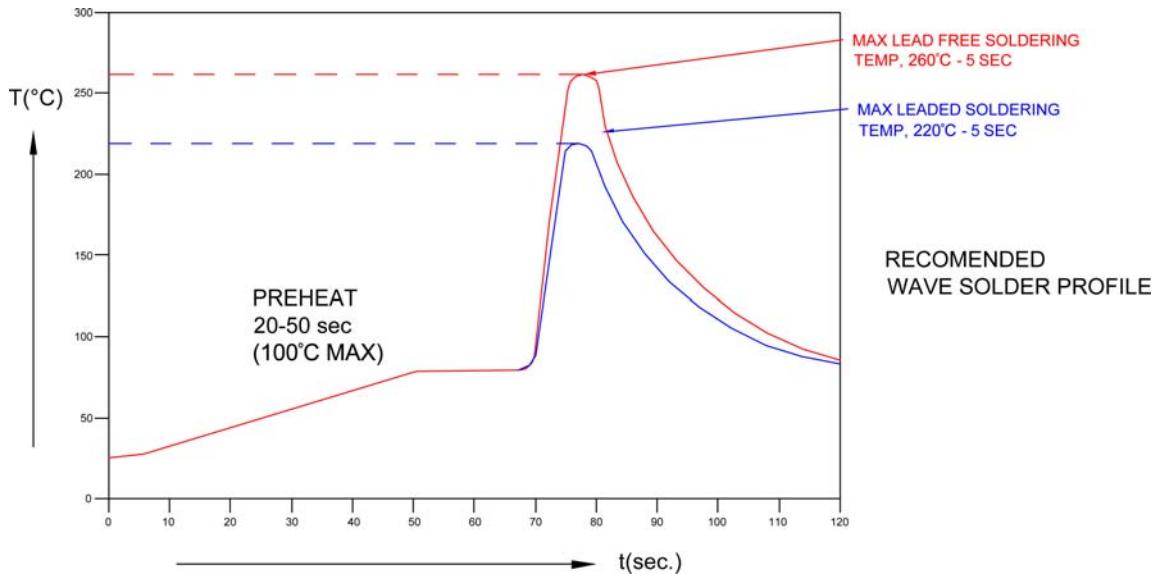
Fig. 6 Relative Luminous Intensity vs. Temperature

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Recommended Soldering Conditions

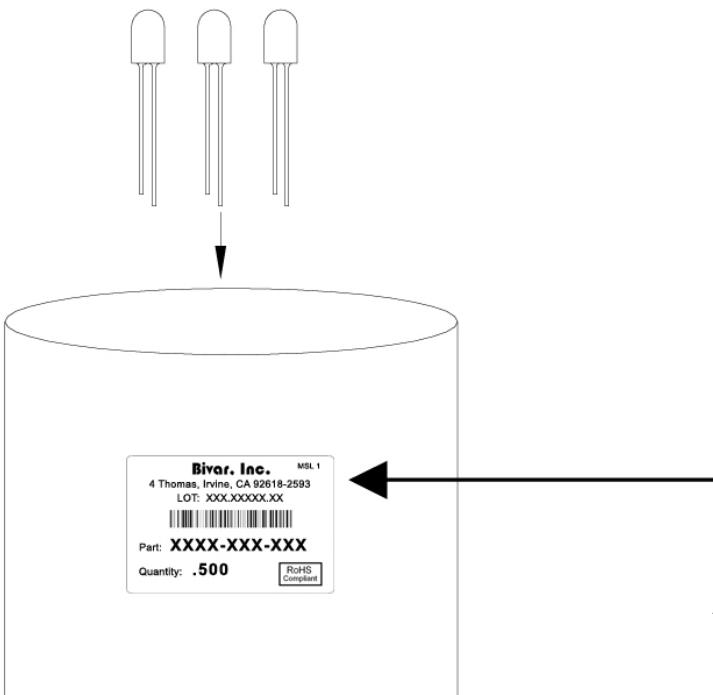


Recommended Lead Free Wave Soldering Profile

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



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

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Mouser Electronics

Authorized Distributor

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