BIVAR

5BC-3-CA-X

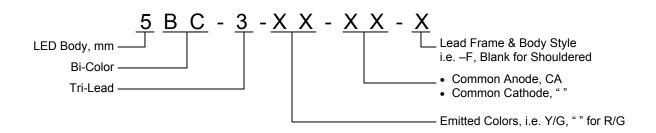
- ♦ Industry Standard 5mm (T1 ¾) Package
- **♦** RoHS Compliant
- ♦ White Diffused Lens
- ◆ Available in Flange (F) and Shouldered (Blank) Lead Frame styles
- ♦ 3-Lead Bi-Color LED
- ♦ Ideal for Status Indication and Display



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-standy 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 λp(nm) TYP.	Lens Appearance	Viewing Angle		
FDC 2 CA E	GaAsP/GaP	RED	625nm				
5BC-3-CA-F	GaP/GaP				40°		
5DC 2 CA	GaAsP/GaP	RED	625nm	White Diffused	40		
5BC-3-CA	GaP/GaP	GREEN	568nm				

Part Number Designation



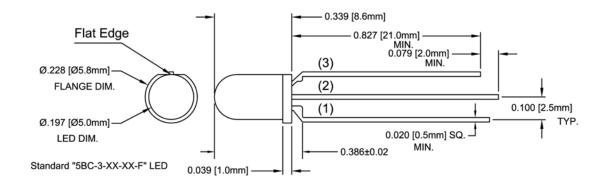


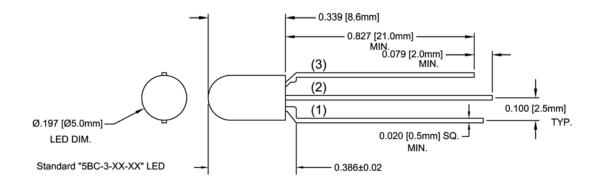




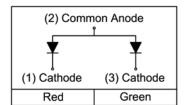


Outline Dimensions





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



Outline Drawings Notes:

1. All dimensions are in inches [millimeters].

2. Standard tolerance: ±0.010" unless otherwise noted.

3. Tolerance of overall epoxy outline: ±0.020" unless otherwise noted.

4. Epoxy meniscus may extend to 0.060" max.



Absolute Maximum Ratings

 $T_A = 25^{\circ}C$ 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 ≤ 0.1 msec.

2. Solder time less than 5 seconds at temperature extreme.

Electrical / Optical Characteristics

 $T_A = 25^{\circ}C \& I_F = 20 \text{ mA}$ unless otherwise noted

Part Number	Emitted Voltage (V) ¹		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant Wavelength (nm) ²		Luminous Intensity Iv (mcd)			Viewing Angle 2 O ½ (deg)				
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
5BC-3-	Red	/	2.0	2.8	/	20	/	100	/	1	/	/	4	1	40
CA-F	Green	/	2.1	2.8					/	1	/	/	6	1	
5BC-3-	Red	/	2.0	2.8	1	20	/	100	/	1	/	/	4	/	40
CA	Green	/	2.1	2.8					/	/	/	/	6	/	

Notes: 1. Tolerance of forward voltage: ±0.05V.

2. Tolerance of dominant wavelength: ±1.0nm.



Typical Electrical / Optical Characteristics - Red

 $T_A = 25$ °C unless otherwise noted

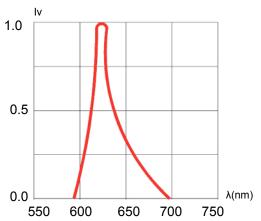


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

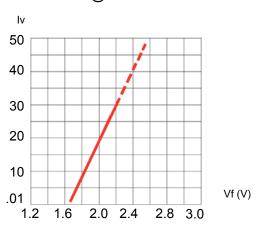


Fig. 3 Relative Intensity (10mA) vs. Forward Voltage

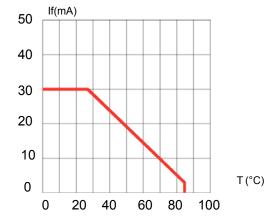


Fig. 5 Forward Current vs. Temperature

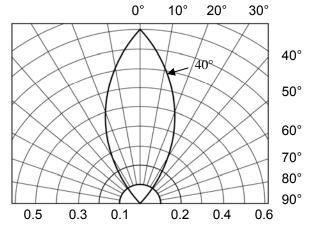


Fig. 2 Directivity Radiation Diagram

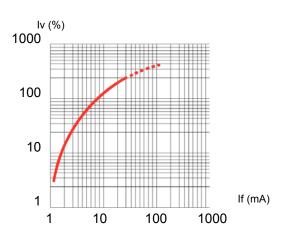


Fig. 4 Relative Luminous Intensity (%) vs. Forward Current

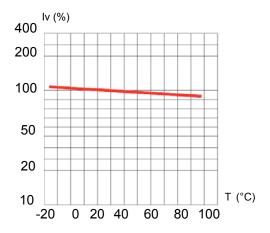


Fig. 6 Relative Intensity (%) vs. Temperature @ 20 mA



Typical Electrical / Optical Characteristics - Green

 $T_A = 25$ °C unless otherwise noted

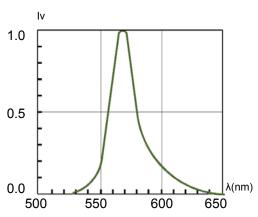


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

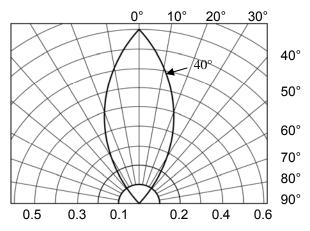


Fig. 2 Directivity Radiation Diagram

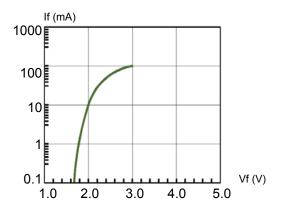


Fig. 3 Forward Current vs. Forward Voltage

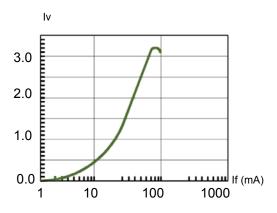


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

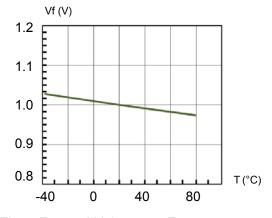


Fig. 5 Forward Voltage vs. Temperature

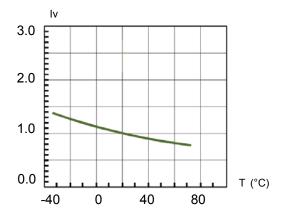
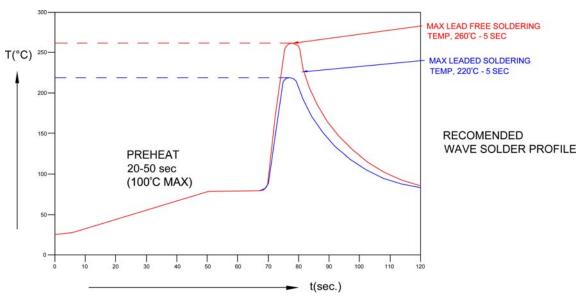


Fig. 6 Relative Luminous Intensity vs. Temperature

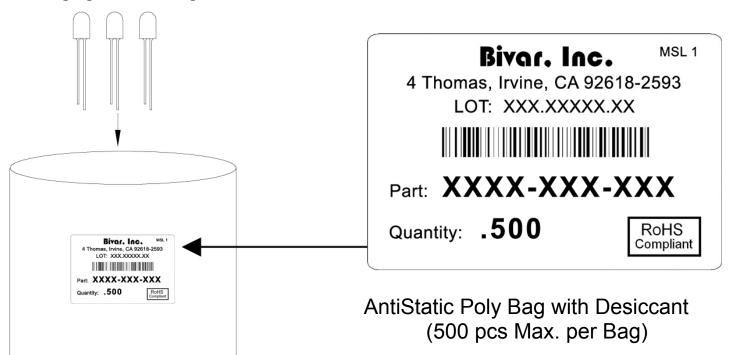


Recommended Soldering Conditions



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 Ma					
Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.					

Packaging and Labeling Plan



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