

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

BIVAR

5BC-3-CA-X

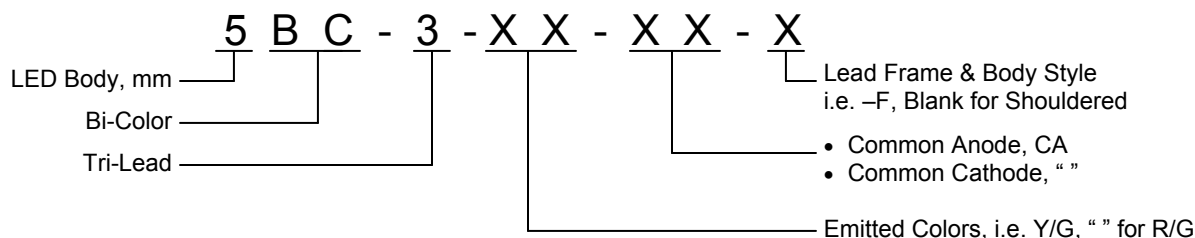
- ◆ Industry Standard 5mm (T1 ¾) Package
- ◆ RoHS Compliant
- ◆ White Diffused Lens
- ◆ Available in Flange (F) and Shouldered (Blank) Lead Frame styles
- ◆ 3-Lead Bi-Color LED
- ◆ Ideal for Status Indication and Display



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 λ_p (nm) TYP.	Lens Appearance	Viewing Angle
5BC-3-CA-F	GaAsP/GaP	RED	630nm	White Diffused	40°
	GaP/GaP	GREEN	565nm		
5BC-3-CA	GaAsP/GaP	RED	630nm		
	GaP/GaP	GREEN	565nm		

Part Number Designation

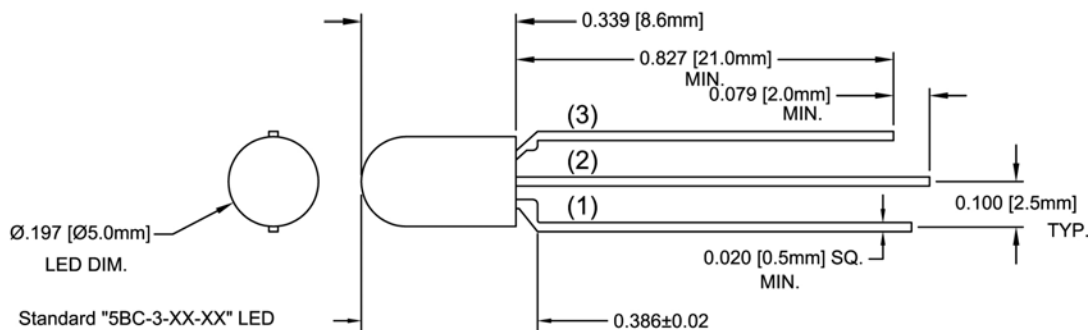
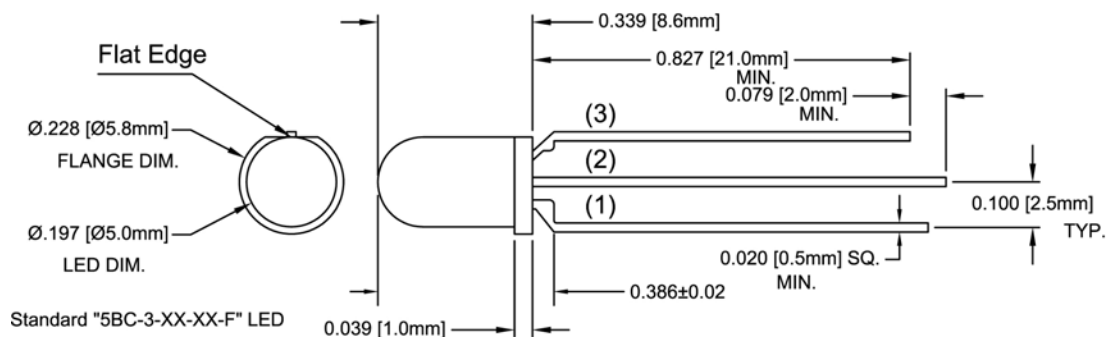


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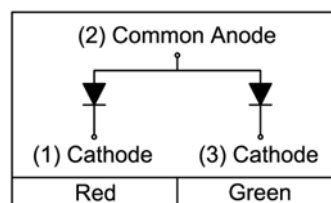
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Outline Dimensions



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



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.

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Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	80 mW
Forward Current (DC)	20 mA
Peak Forward Current ¹	100 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) 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°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 1/2 (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
5BC-3-CA-F	Red	1.7	2.1	2.4	/	20	/	10	620	625	630	2	4	/	40
	Green	1.7	2.2	2.4					565	570	575	2	5	/	
5BC-3-CA	Red	1.7	2.1	2.4	/	20	/	10	620	625	630	2	4	/	40
	Green	1.7	2.2	2.4					565	570	675	2	5	/	

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

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Typical Electrical / Optical Characteristics - Red

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

Fig.1 Forward current vs Forward Voltage

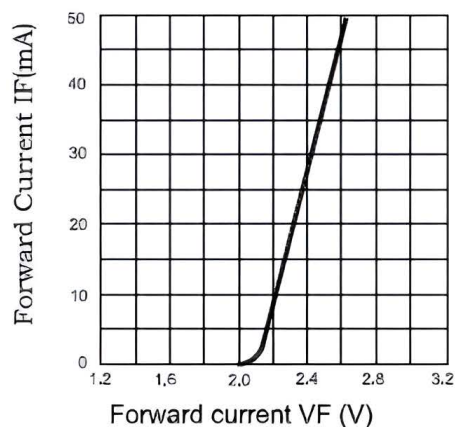


Fig.2 Relative Luminous Intensity vs Forward Current

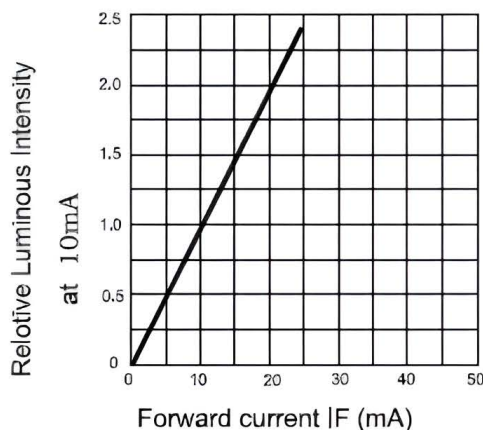


Fig3. Forward Voltage vs. Temperature

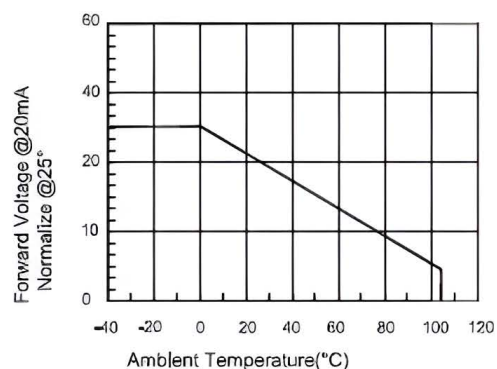


Fig4. Relative Intensity vs. Temperature

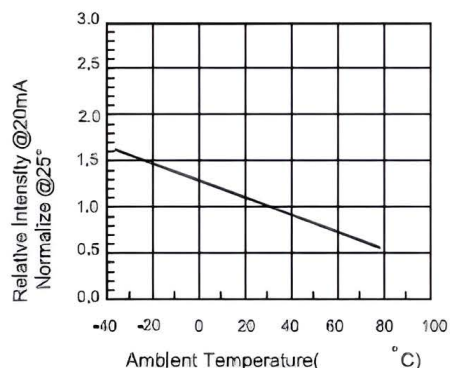
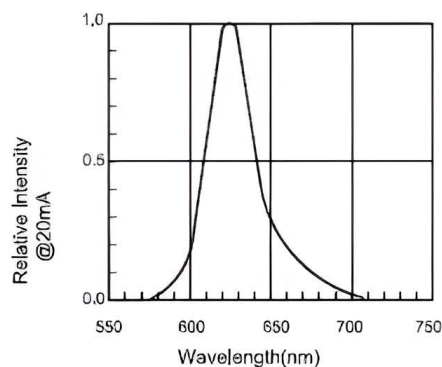
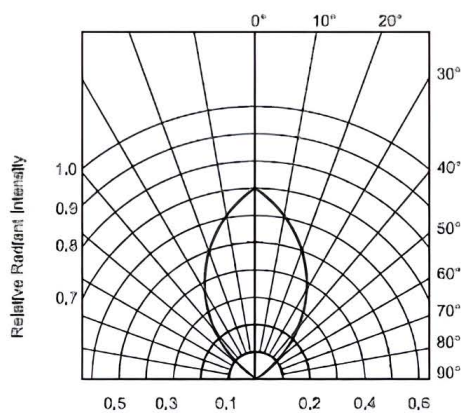


Fig5. Relative Intensity vs. Wavelength



Radiation Diagram $T_A = 25^\circ\text{C}$



RADIATION DIAGRAM

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Typical Electrical / Optical Characteristics - Green

T_A = 25°C unless otherwise noted

Fig1.Forward Current vs.Forward Voltage

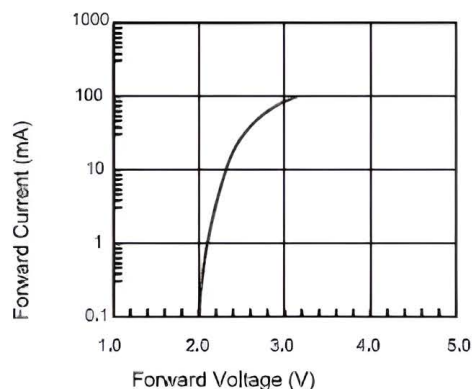


Fig2.Relative Intensity vs. Forward Current

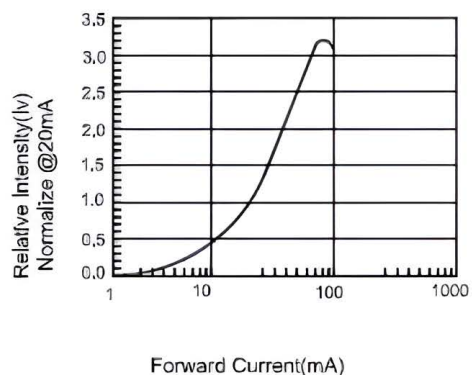


Fig3.Forward Voltage vs. Temperature

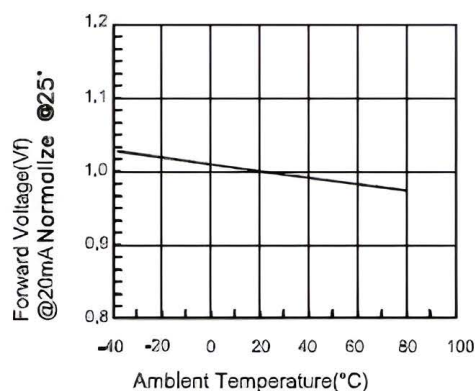


Fig4.Relative Intensity vs. Temperature

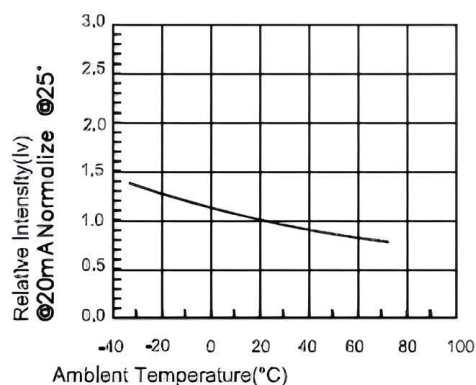
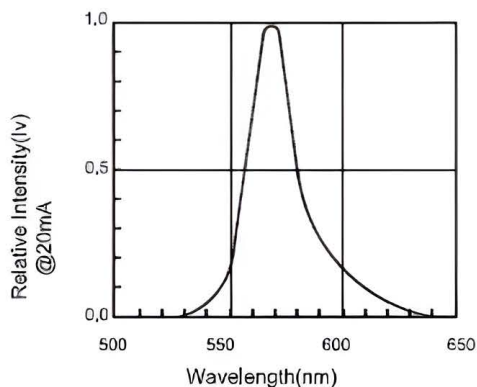
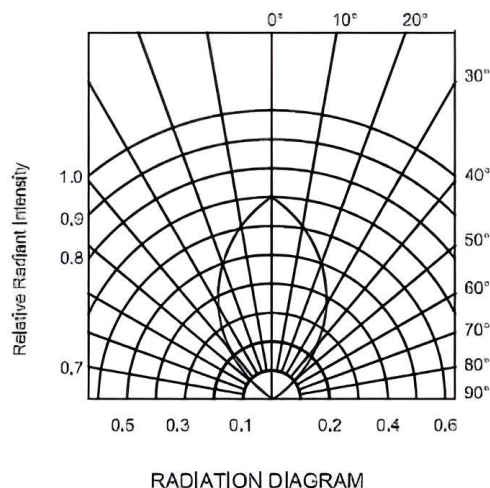


Fig5.Relative Intensity vs. Wavelength



Radiation Diagram T_A=25°C

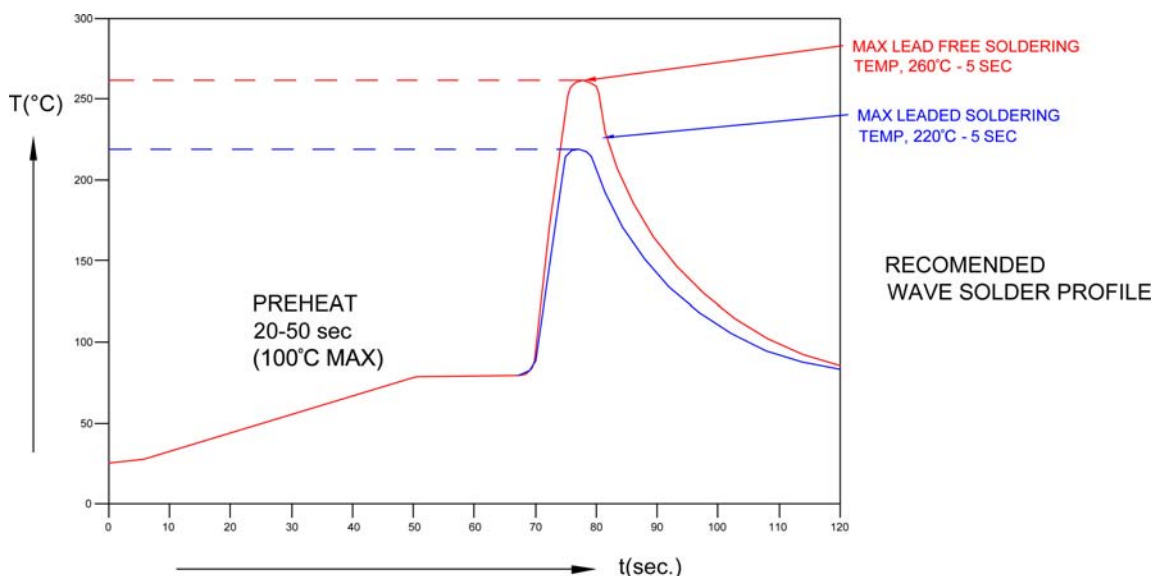


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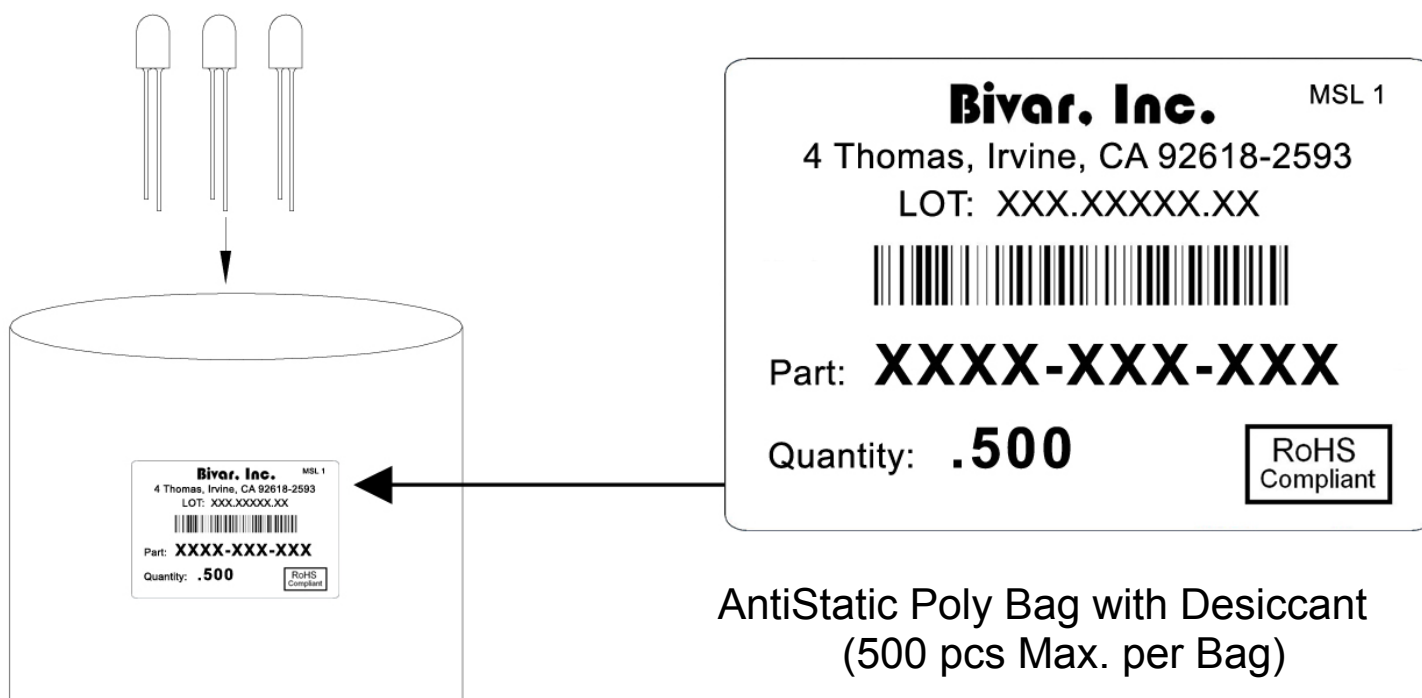


Recommended Soldering Conditions



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



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