

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

BIVAR

5BC-X

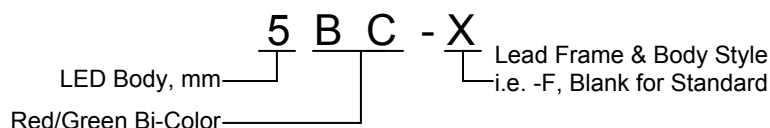
- ♦ Industry Standard 5mm (T1 ¾) Package
- ♦ RoHS Compliant
- ♦ White Diffused Lens
- ♦ Available in Flange (F) and Standard (Blank) Lead Frame styles
- ♦ 2-Lead Bi-Color LED
- ♦ Ideal for Status Indication and Display



Bivar 5mm T1 ¾ Package 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. Bivar offers white diffused LED lens for uniform light output. The Flange LED is ideal for Panel Mount Clip & Ring assemblies and the Standard Lead frame LED is ideal for vertical spacer assemblies without lead bends.

Part Number	Material	Emitted Color	Peak. Wavelength λ_p (nm) TYP.	Lens Appearance	Viewing Angle
5BC-F	GaAsP/GaP	RED	625nm	White Diffused	45°
	GaP/GaP	GREEN	568nm		
5BC	GaAsP/GaP	RED	625nm		
	GaP/GaP	GREEN	568nm		

Part Number Designation

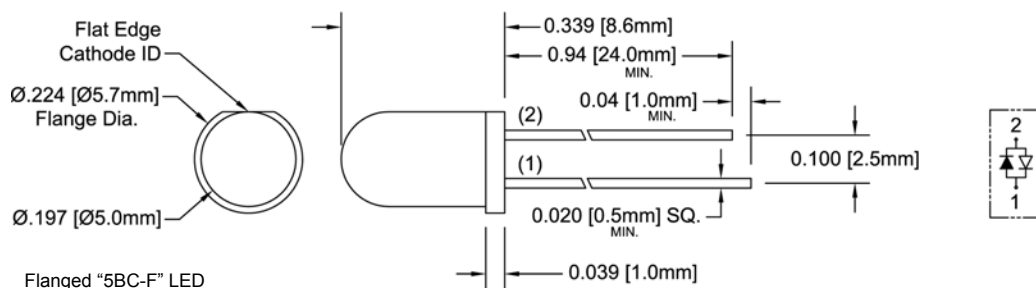


Bivar reserves the right to make changes at any time without notice.

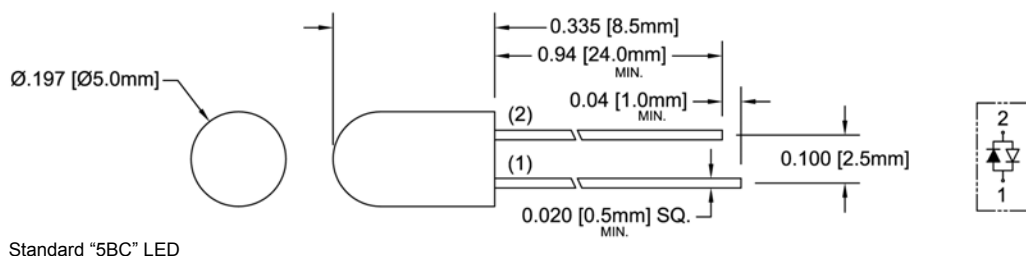
5mm (T1 3/4) Package Discrete LED RED/GREEN, Bi-Color



Outline Dimensions



(1) Cathode	(2) Cathode
Green	Red



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.

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

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



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 ≤ 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-F	Red	/	2.0	2.8	/	20	/	100	/	/	/	/	8	/	45
	Green	/	2.1	2.8					/	/	/	/	8	/	
5BC	Red	/	2.0	2.8	/	20	/	100	/	/	/	/	6	/	45
	Green	/	2.1	2.8					/	/	/	/	8	/	

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

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

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

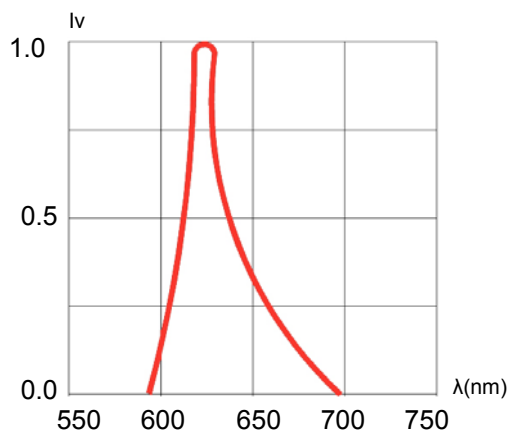


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

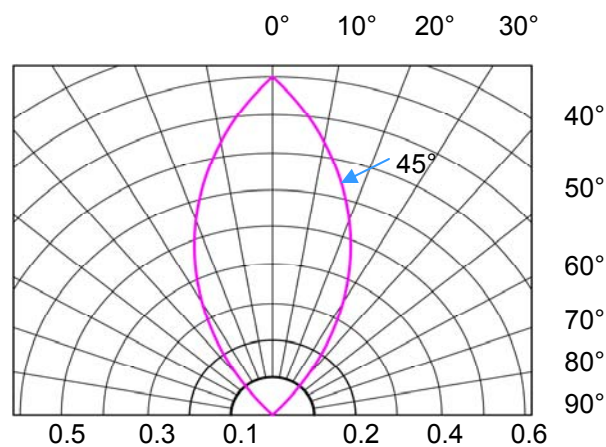


Fig. 2 Directivity Radiation Diagram

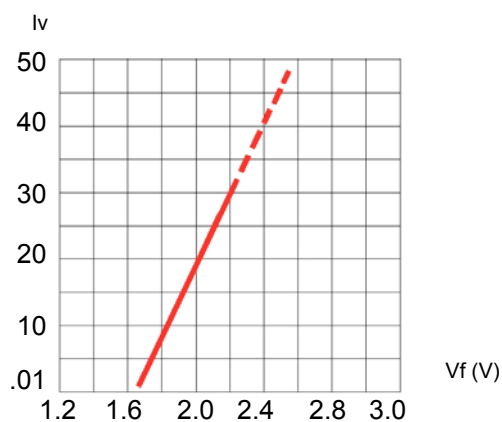


Fig. 3 Relative Intensity (10mA) vs.
Forward Voltage

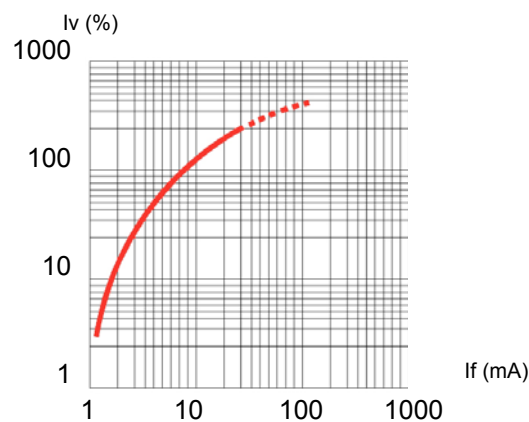


Fig. 4 Relative Luminous Intensity (%) vs.
Forward Current

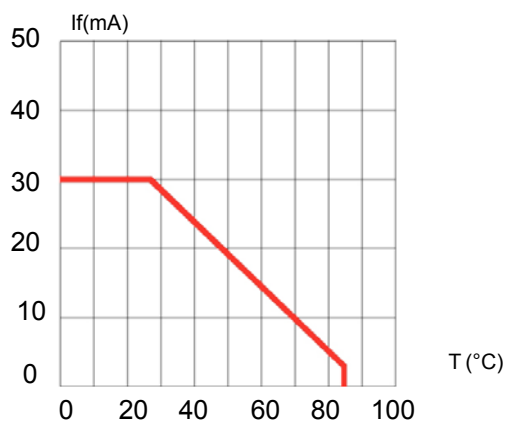


Fig. 5 Forward Current vs. Temperature

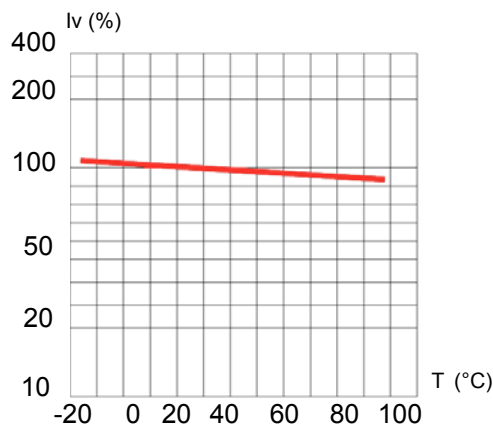


Fig. 6 Relative Intensity (%) vs. Temperature
@ 20 mA

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

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



Typical Electrical / Optical Characteristics - Green

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

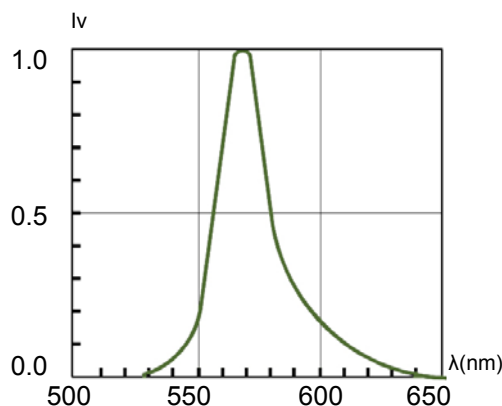


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

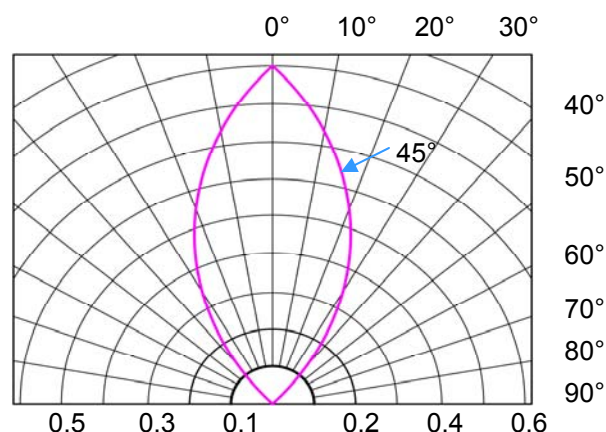


Fig. 2 Directivity Radiation Diagram

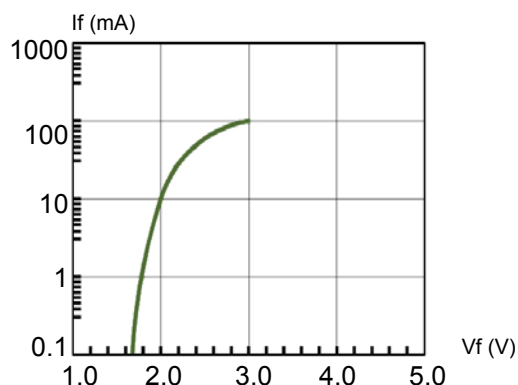


Fig. 3 Forward Current vs. Forward Voltage

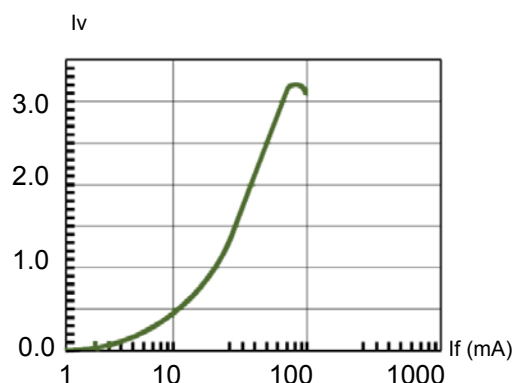


Fig. 4 Relative Luminous Intensity vs. Forward Current
Normalize @ 20 mA

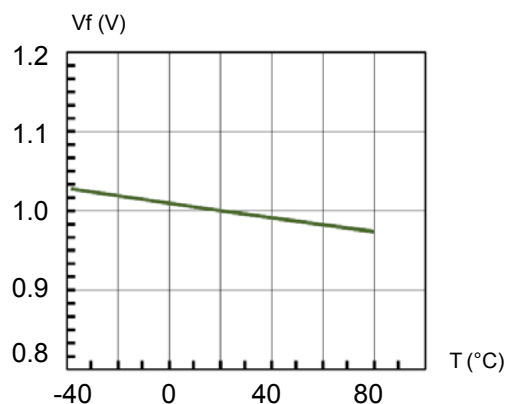


Fig. 5 Forward Voltage vs. Temperature

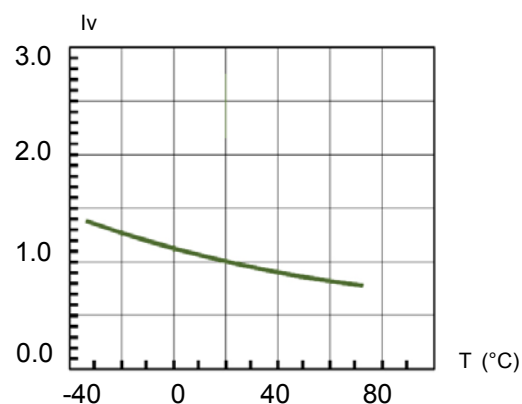


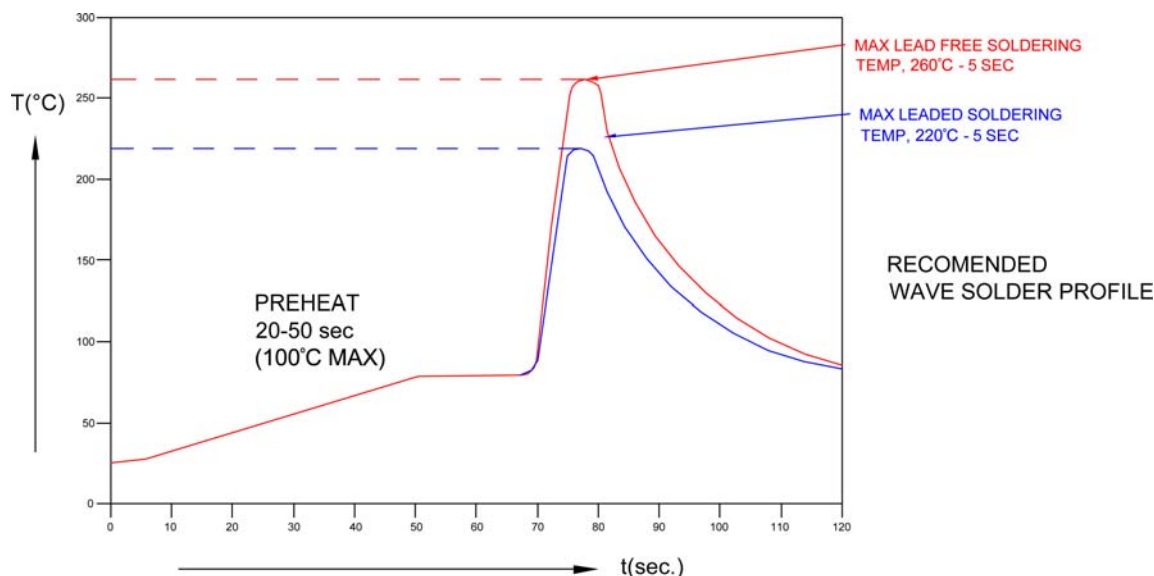
Fig. 6 Relative Luminous Intensity vs. Temperature

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

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

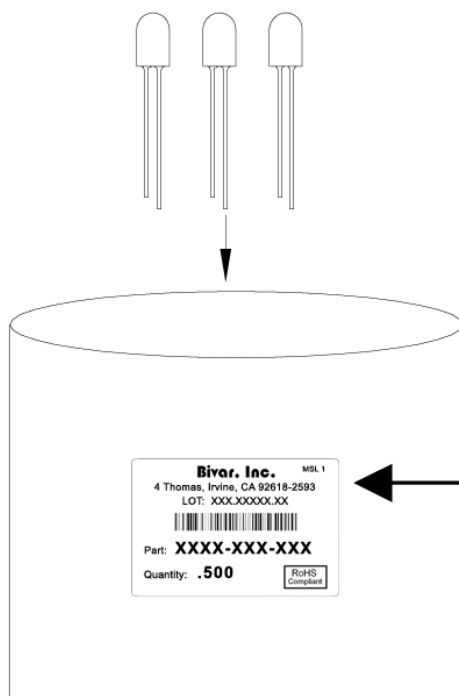


Recommended Soldering Conditions



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



Bivar, Inc.	MSL 1
4 Thomas, Irvine, CA 92618-2593	
LOT: XXX.XXXXX.XX	
Part: XXXX-XXX-XXX	
Quantity: .500	
RoHS Compliant	

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

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