

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

BIVAR

5BC-X

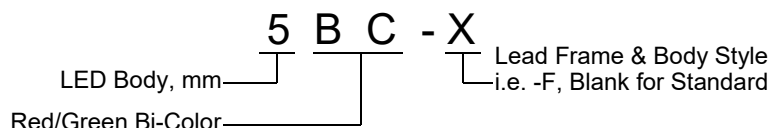
- ◆ Industry Standard 5mm (T1 ¾) Package
- ◆ RoHS Compliant
- ◆ White Diffused Lens
- ◆ Available in Flange (F) and Standard (Blank) Lead Frame styles
- ◆ 2-Lead Bi-Color LED
- ◆ Ideal for Status Indication and Display



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	RED	625nm	White Diffused	140°
	GaP	GREEN	565nm		
5BC	GaAsP	RED	625nm		
	GaP	GREEN	565nm		

Part Number Designation

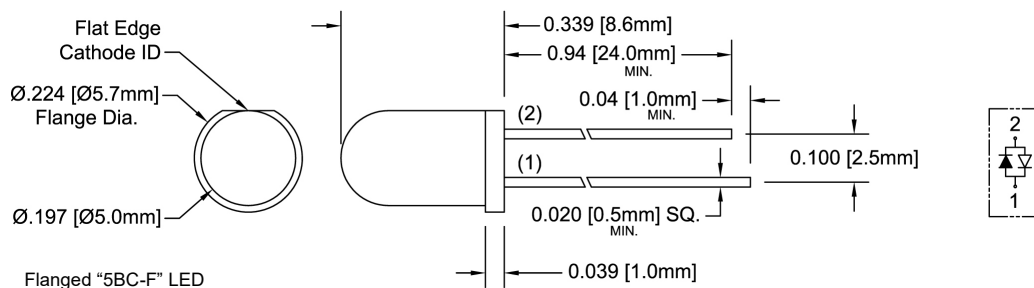


Bivar reserves the right to make changes at any time without notice.

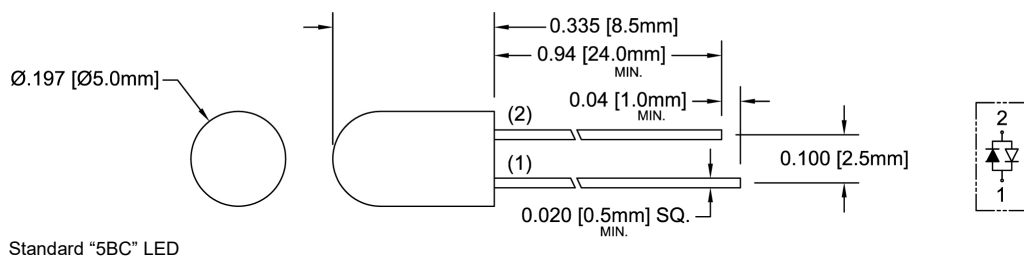
5mm (T1 3/4) Package Discrete LED RED/GREEN, Bi-Color



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	100 mA
Operating Temperature Range	-40° ~ +80°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-F	Red	1.7	2.0	2.4	/	20	/	10	615	620	625	4	8	16	140
	Green	1.8	2.2	2.6					565	570	575	7	14	28	
5BC	Red	1.7	2.0	2.4	/	20	/	10	615	620	625	4	8	16	140
	Green	1.8	2.2	2.6					565	570	575	7	14	28	

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

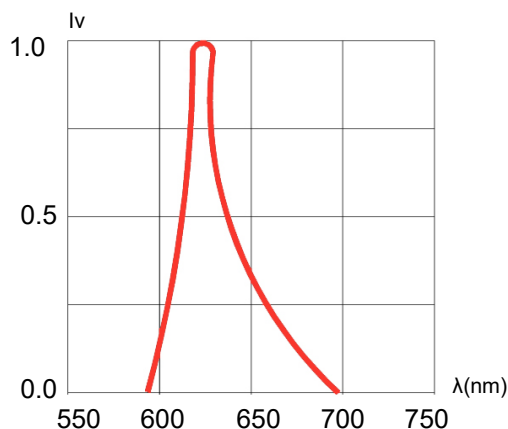


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

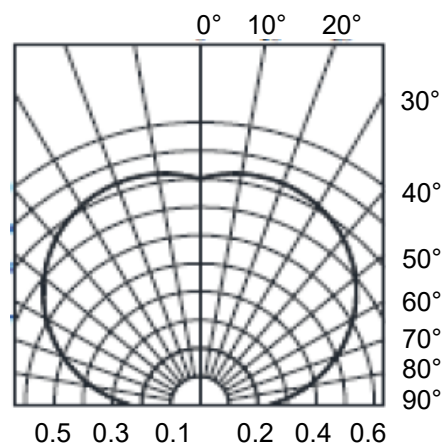


Fig. 2 Directivity Radiation Diagram

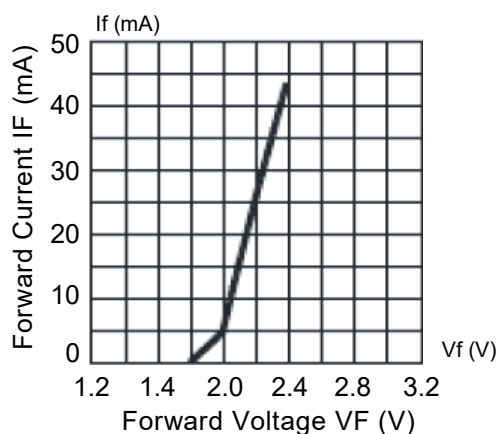


Fig. 3 Forward Current vs. Forward Voltage

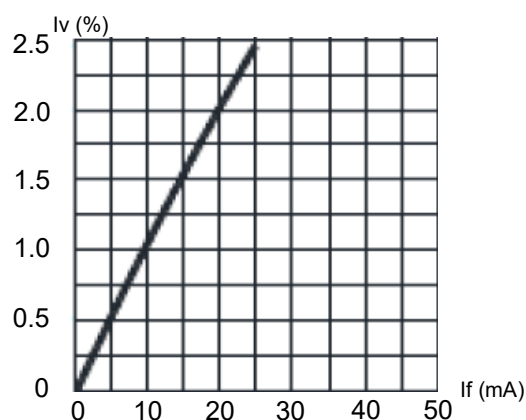


Fig. 4 Relative Luminous Intensity (10mA) vs.
Forward Current

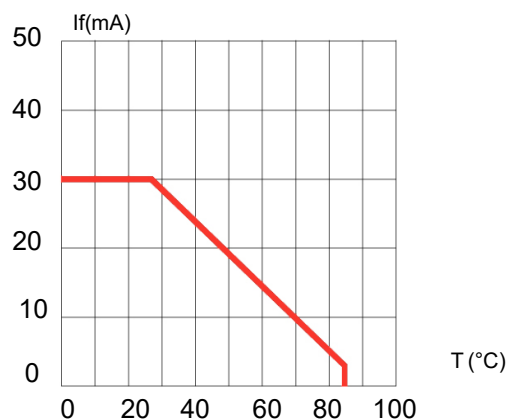


Fig. 5 Forward Current vs. Temperature

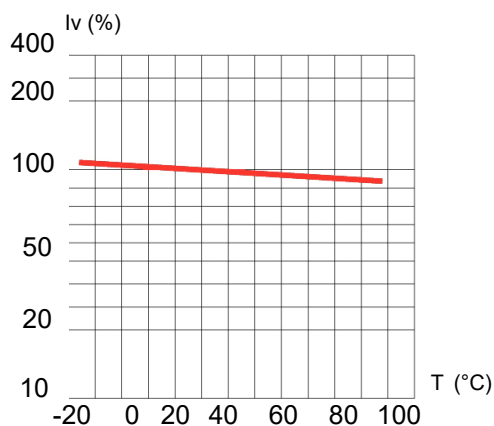


Fig. 6 Relative Intensity (%) vs. Temperature
@ 20 mA

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

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



Typical Electrical / Optical Characteristics - Green

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

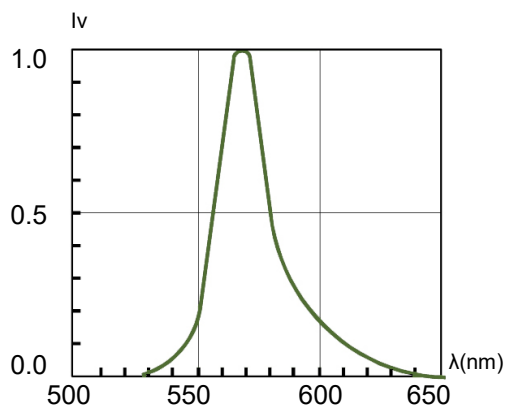
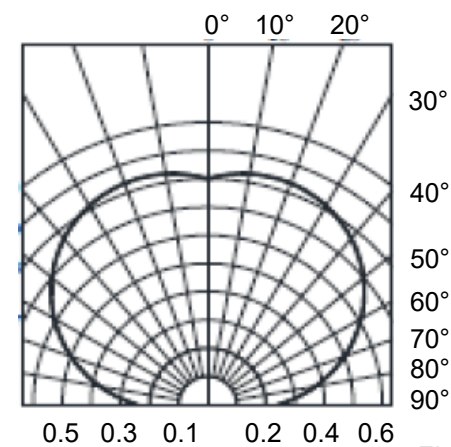


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA



Directivity Radiation Diagram

Fig. 2

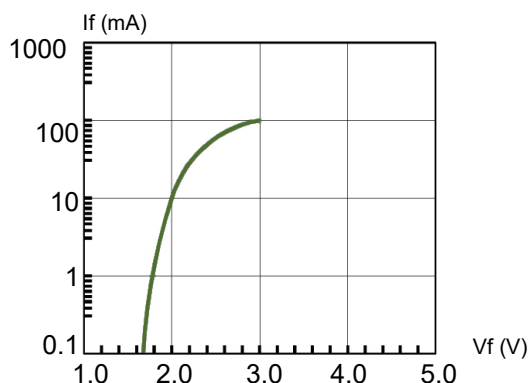


Fig. 3 Forward Current vs. Forward Voltage

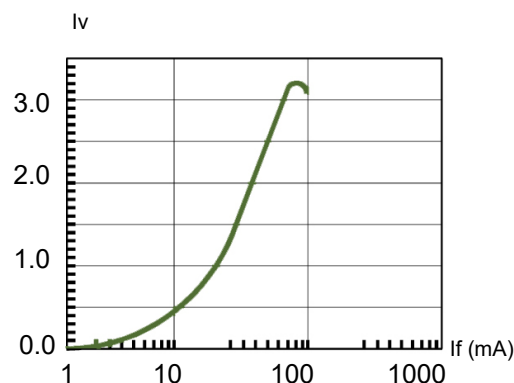


Fig. 4 Relative Luminous Intensity vs. Forward Current
Normalize @ 20 mA

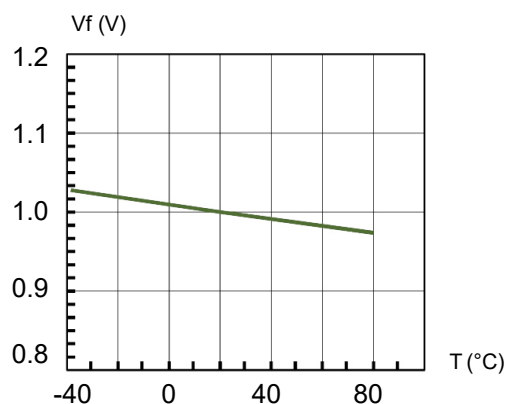


Fig. 5 Forward Voltage vs. Temperature

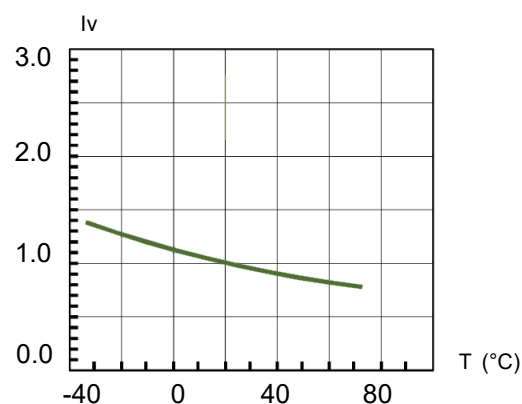


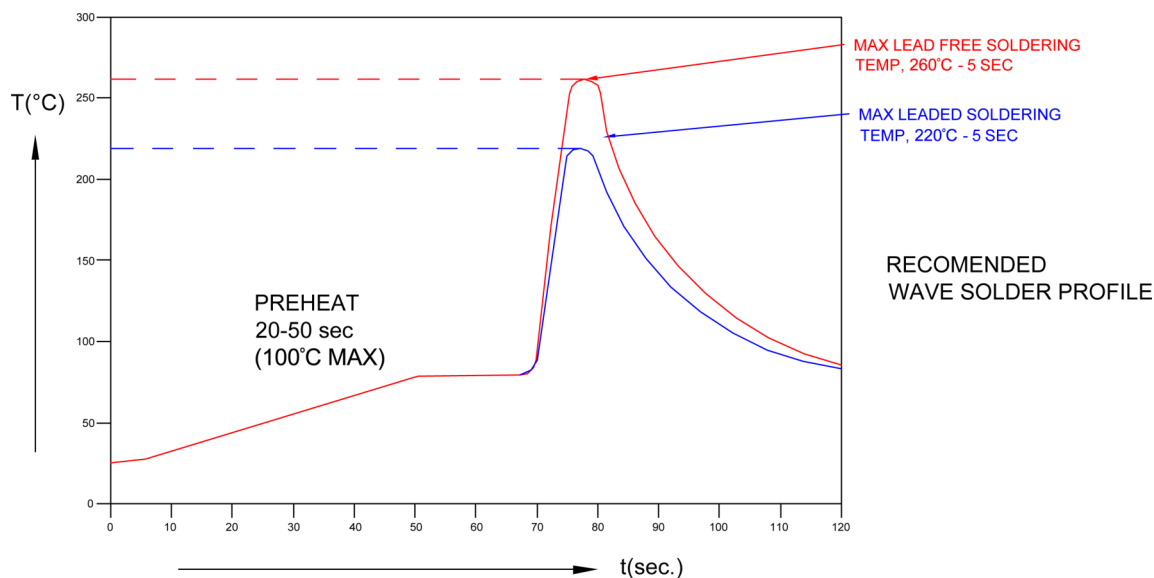
Fig. 6 Relative Luminous Intensity vs. Temperature

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

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

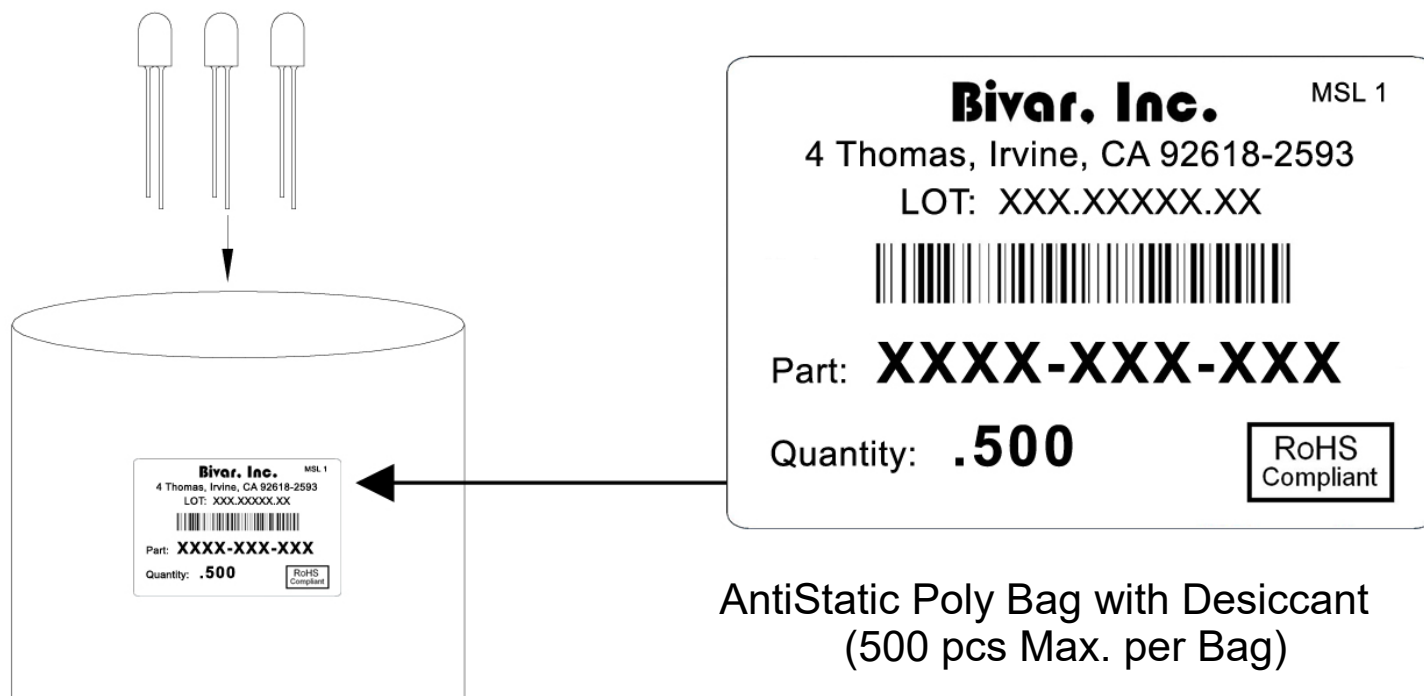


Recommended Soldering Conditions



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