Rectangular Package Discrete LED RED/YELLOW, 2 x 7 mm, Bi-Color

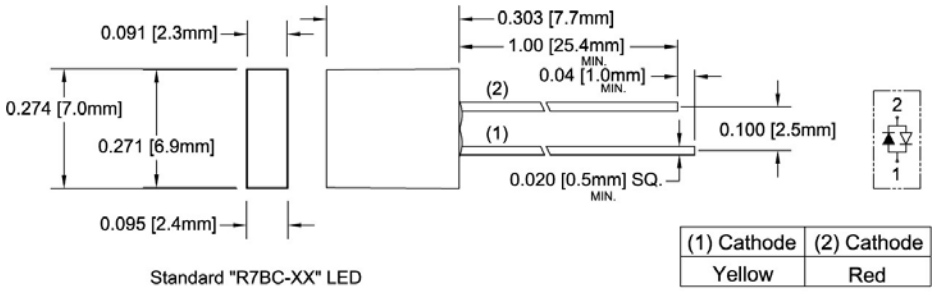
R7BC-R/Y

- **Rectangular Package**
- **RoHS Compliant**
- **White Diffused Lens**
- **Available in Standard Lead Frame style**
- **2-Lead Bi-Color LED**
- **Ideal for Status Indication and Bar Graph Displays**

Bivar Rectangular 2 x 7mm 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 on server and computer peripherals. The rectangular package makes it ideal for greater indication visibility and creating bar graph displays when arranged in linear LED arrays. Bivar offers white diffused LED lens for uniform light output and the 2-lead package will simplify circuitry design where a reverse voltage is available. The Standard Lead frame LED is ideal for vertical spacer assemblies and Right Angle Holder assemblies that require lead bends.

Part Number	Material	Emitted Color	Peak. Wavelength λp(nm) TYP.	Lens Appearance	Viewing Angle
R7BC-R/Y	GaAsP/GaP	RED	625nm	White Diffused	120°
	GaAsP/GaP	YELLOW	590nm		

Outline Dimensions



Standard "R7BC-XX" LED

(1) Cathode	(2) Cathode
Yellow	Red

Recommended Mounting Hole Size = Ø.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.

Part Number Designation

R 7 B C - X X

- R 7: LED Body, mm
- B C: Bi-Color
- X: 1st Emitted Color
- X: 2nd Emitted Color

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

Moisture Sensitivity Levels 1

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

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
Reverse Voltage	5 V
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 Iv (mcd)			Viewing Angle 2 Θ ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
R7BC-R/Y	Red	/	2.0	2.8	/	20	/	100	/	/	/	/	4	/	120
	Yellow	/	2.0	2.8					/	/	/	/	3	/	

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°C unless otherwise noted

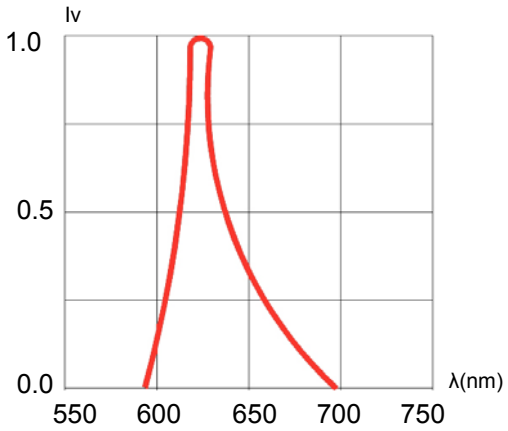

Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

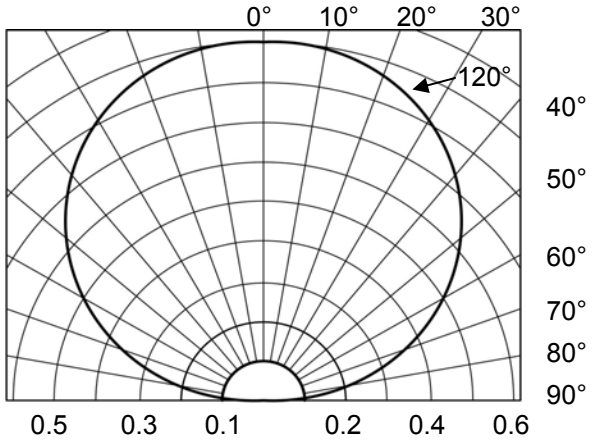

Fig. 2 Directivity Radiation Diagram

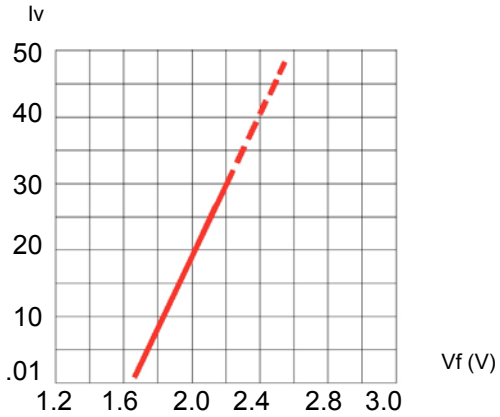

Fig. 3 Relative Intensity (10mA) vs. Forward Voltage

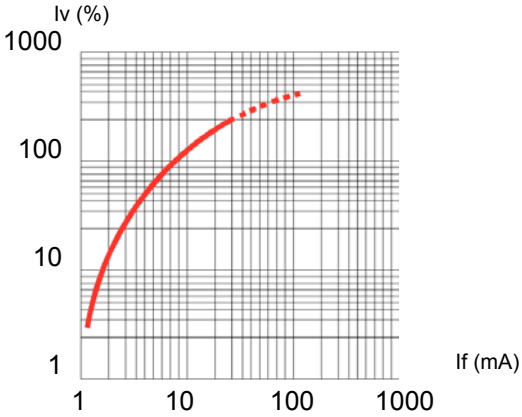

Fig. 4 Relative Luminous Intensity (%) vs. Forward Current

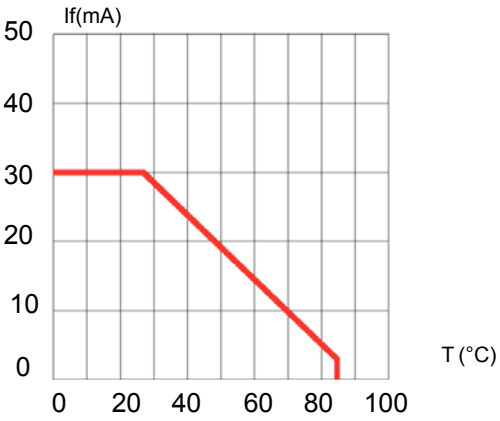

Fig. 5 Forward Current vs. Temperature

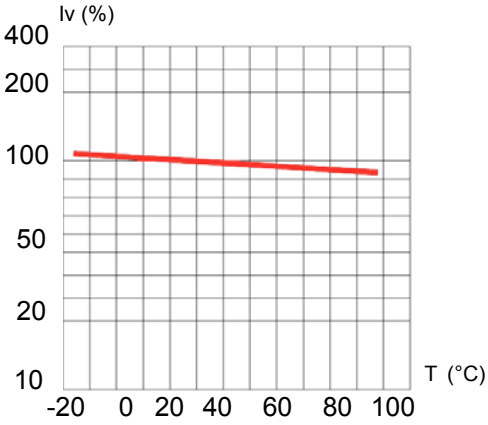

Fig. 6 Relative Intensity (%) vs. Temperature @ 20 mA

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

Typical Electrical / Optical Characteristics - Yellow

T_A = 25°C unless otherwise noted

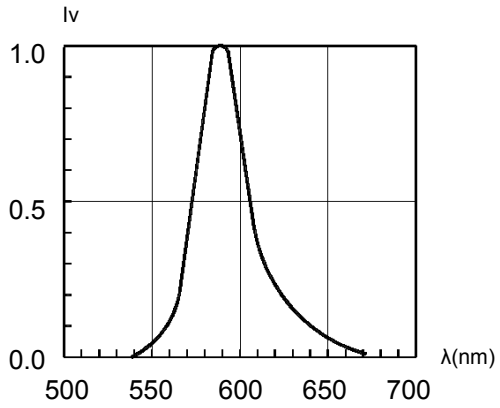

Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

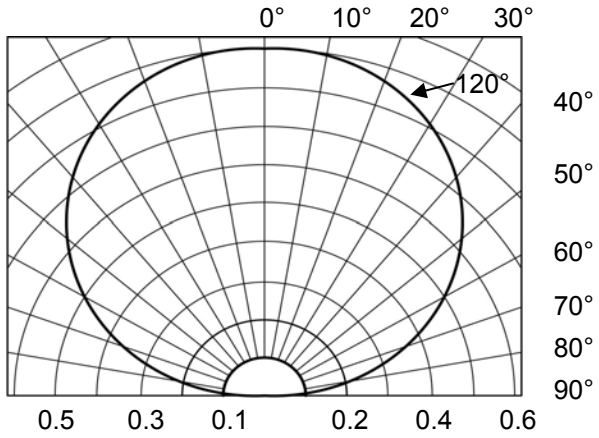

Fig. 2 Directivity Radiation Diagram

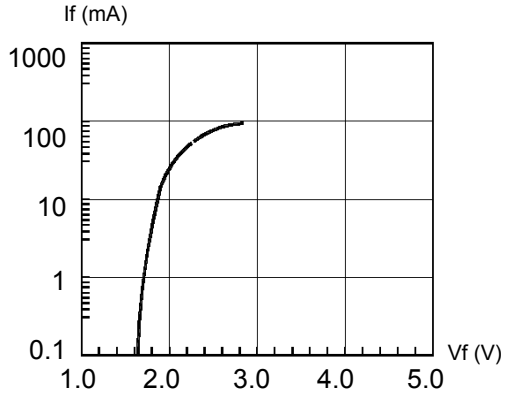

Fig. 3 Forward Current vs. Forward Voltage

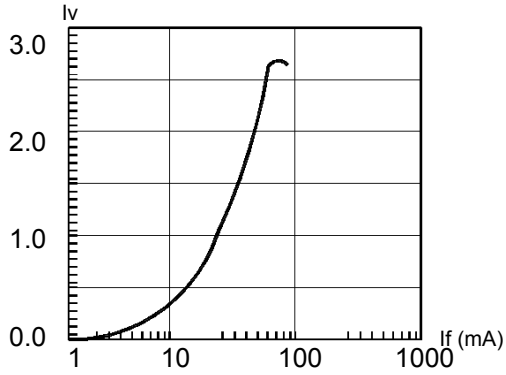

Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

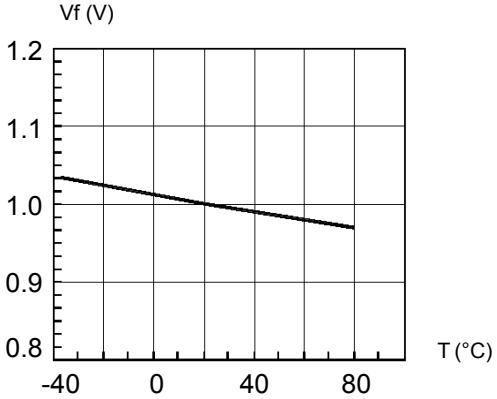

Fig. 5 Forward Voltage vs. Temperature

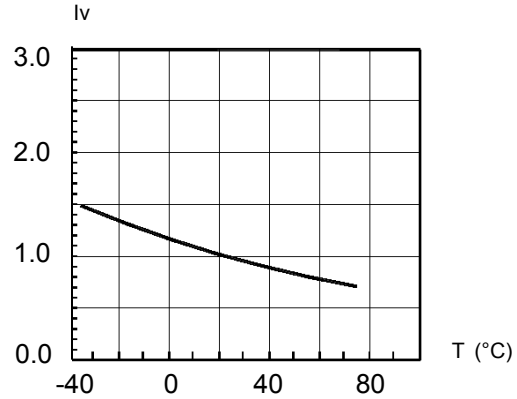

Fig. 6 Relative Luminous Intensity vs. Temperature

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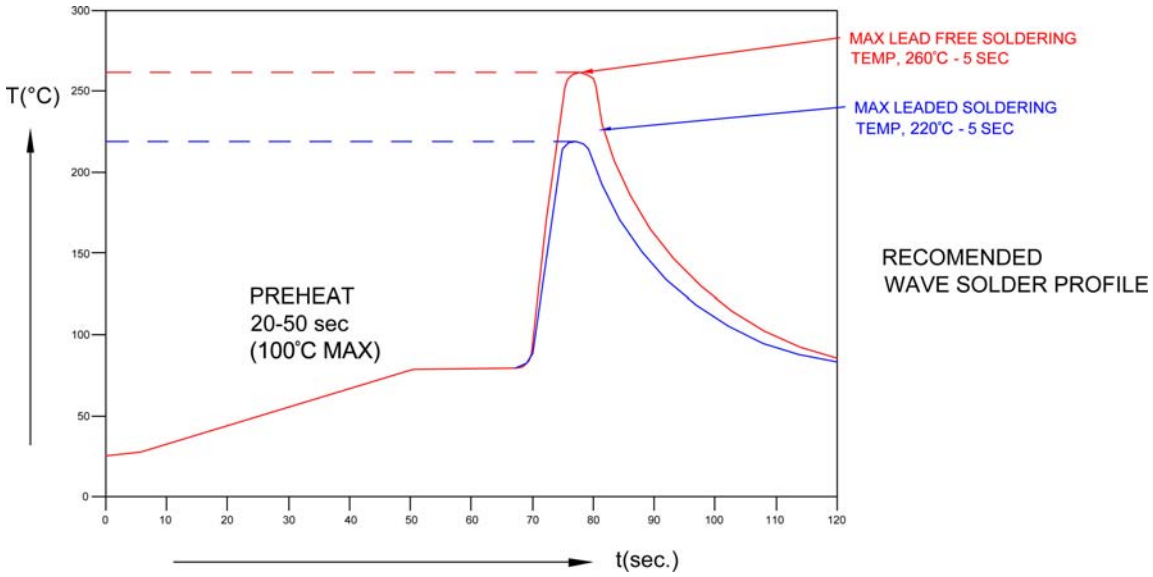
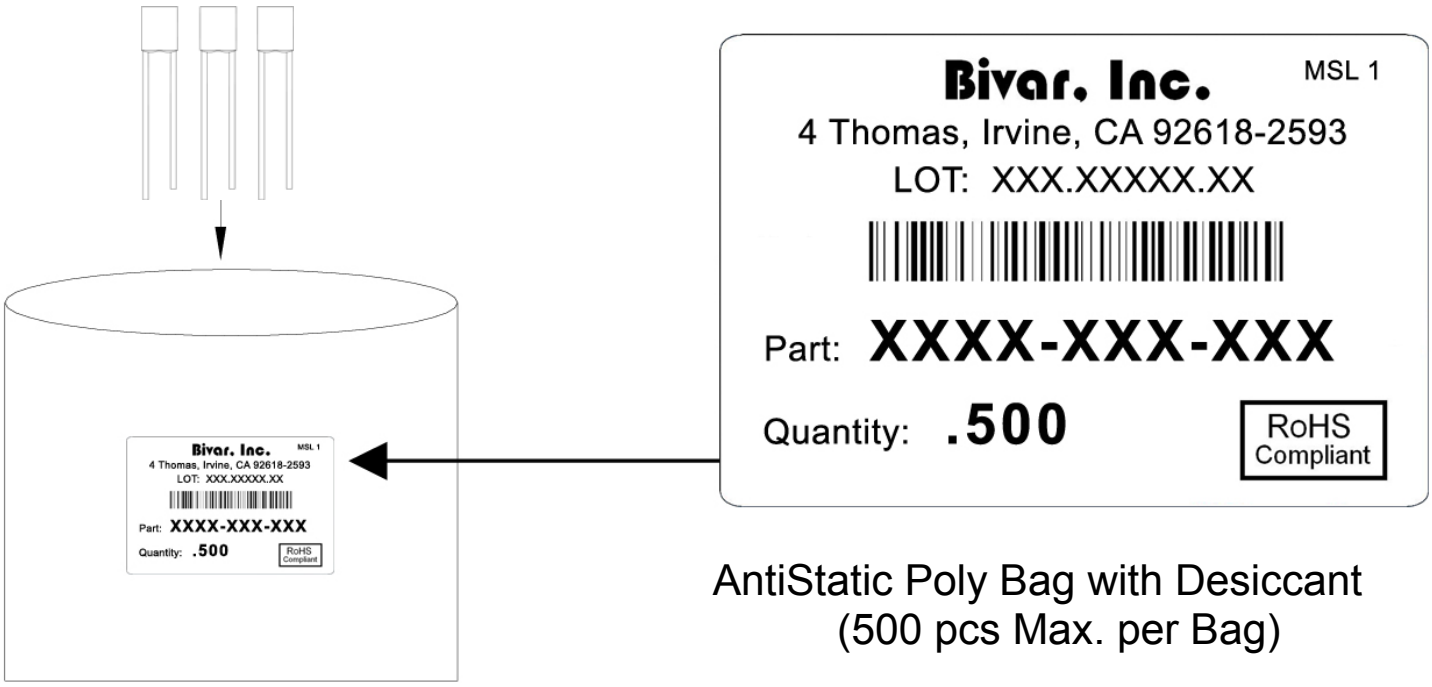
Recommended Soldering Conditions



Recommended Lead Free Wave Soldering Profile	
Preheat Temperature: 100ºC Max.	Peak Temperature: 260ºC Max.
Preheat Time: 20 ~ 50 Seconds	Solder Time Above 217ºC: 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)