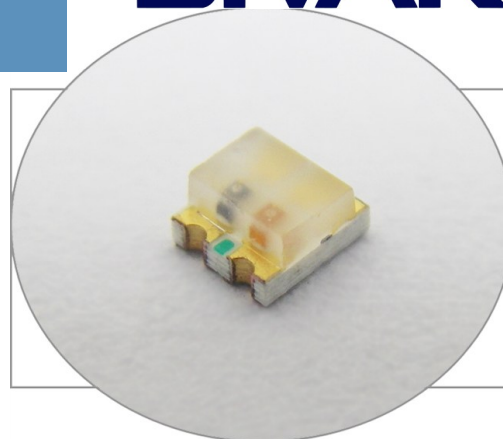


SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE

BIVAR

SM0807BC-RP

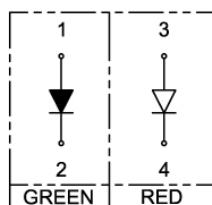
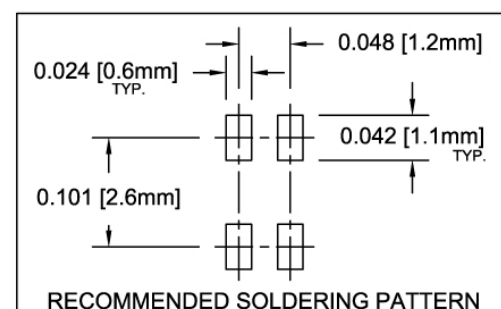
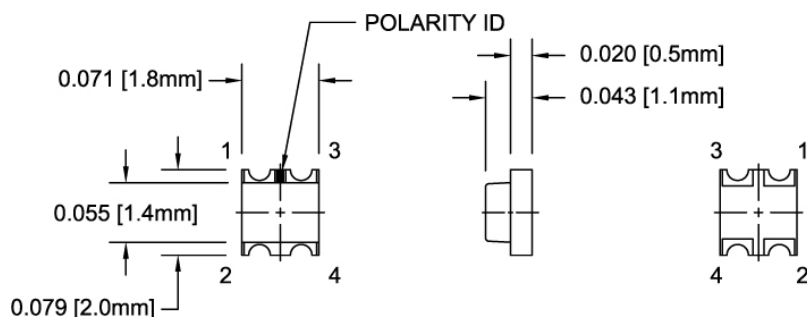
- ◆ Industry Standard Package
- ◆ RoHS Compliant
- ◆ Two Chips in One Package
- ◆ Anode Marking
- ◆ White Diffused Lens
- ◆ Wide Viewing Angle
- ◆ Ideal for Status Indication and Lighting



Bivar Surface Mount 0807 package Bi-Color LED combines two chips in a single package. They are ideal for small scale applications where multiple signals need to be displayed. When needed, the third color can be created by powering up both chips together. Bivar offers white diffused LED lens for uniform light output and wide viewing angles. Low power consumption and excellent long life reliability are ideal for battery powered equipment. The SM0807 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λ_p (nm) TYP.	Lens Appearance	Luminous Intensity @ 20mA (mcd) TYP.	Viewing Angle
SM0807BC-RP	GaAl/As	RED	640	White Diffused	50	140°
	GaP	GREEN	564		15	

Outline Dimensions



Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance: ± 0.010 " unless otherwise noted.



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

SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	75 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	125 mA
Reverse Voltage	5 V
Operating Temperature Range	-40 ~ +80°C
Storage Temperature Range	-40 ~ +85°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 Colors	Forward Voltage (V) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _v (mcd)			Viewing Angle 2 Θ ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM0807BC-RP	Red	1.2	1.7	2.5	/	20	/	10	630	635	650	32	50	100	140
	Green	1.2	1.7	2.5	/	20	/	10	565	572	576	5	15	25	

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

2. Tolerance of dominant wavelength : -1.0nm of MIN and +1nm of MAX.

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SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE



Typical Electrical / Optical Characteristics

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

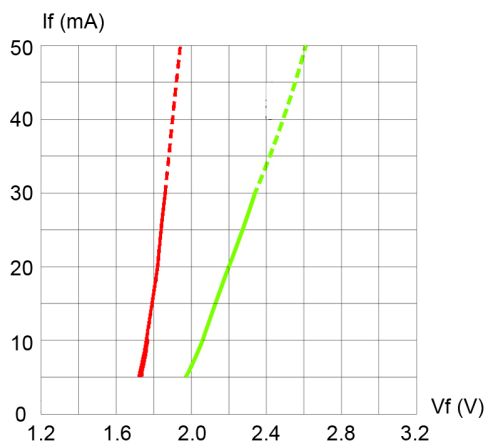


Fig. 1 Forward Current vs. Forward Voltage

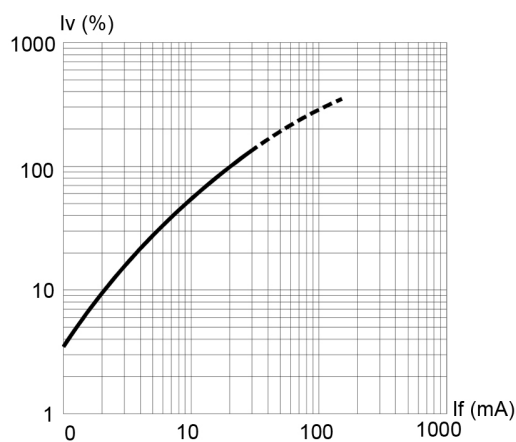


Fig. 2 Relative Luminous Intensity vs. Forward Current

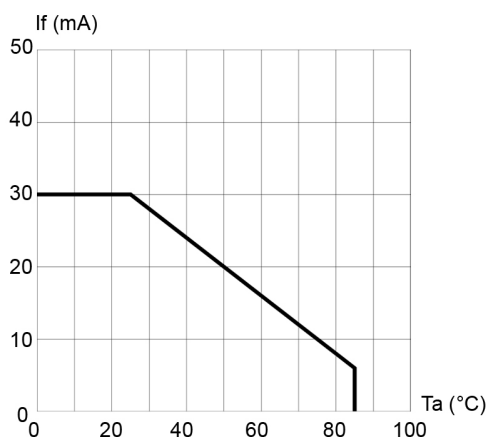


Fig. 3 Forward Current vs. Temperature

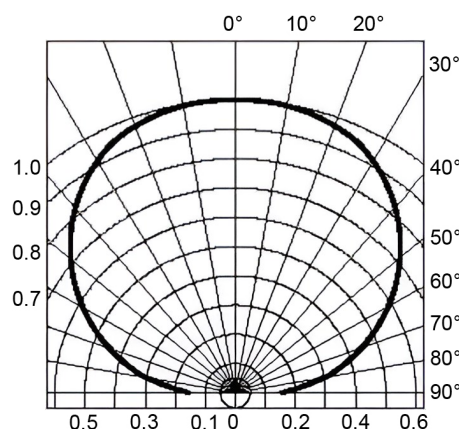


Fig. 4 Directivity Radiation Diagram

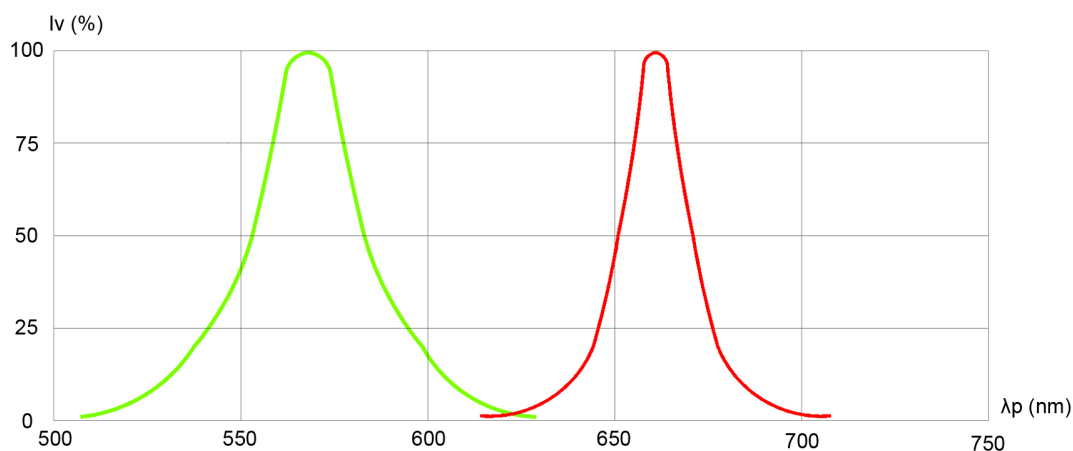


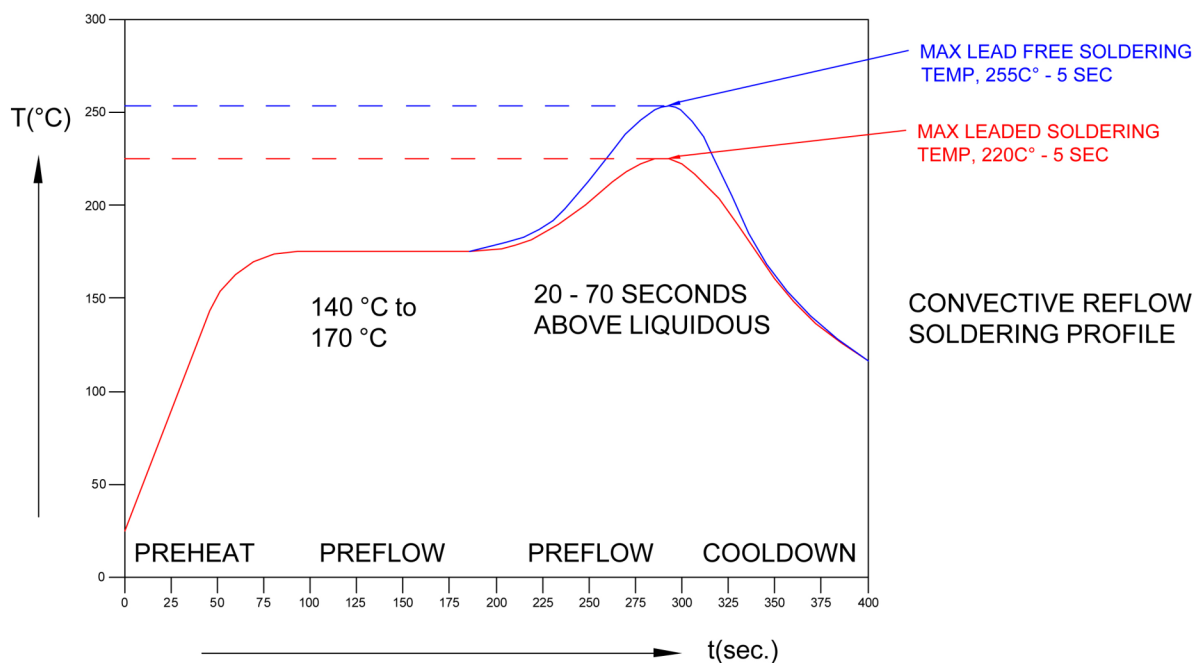
Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

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SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE

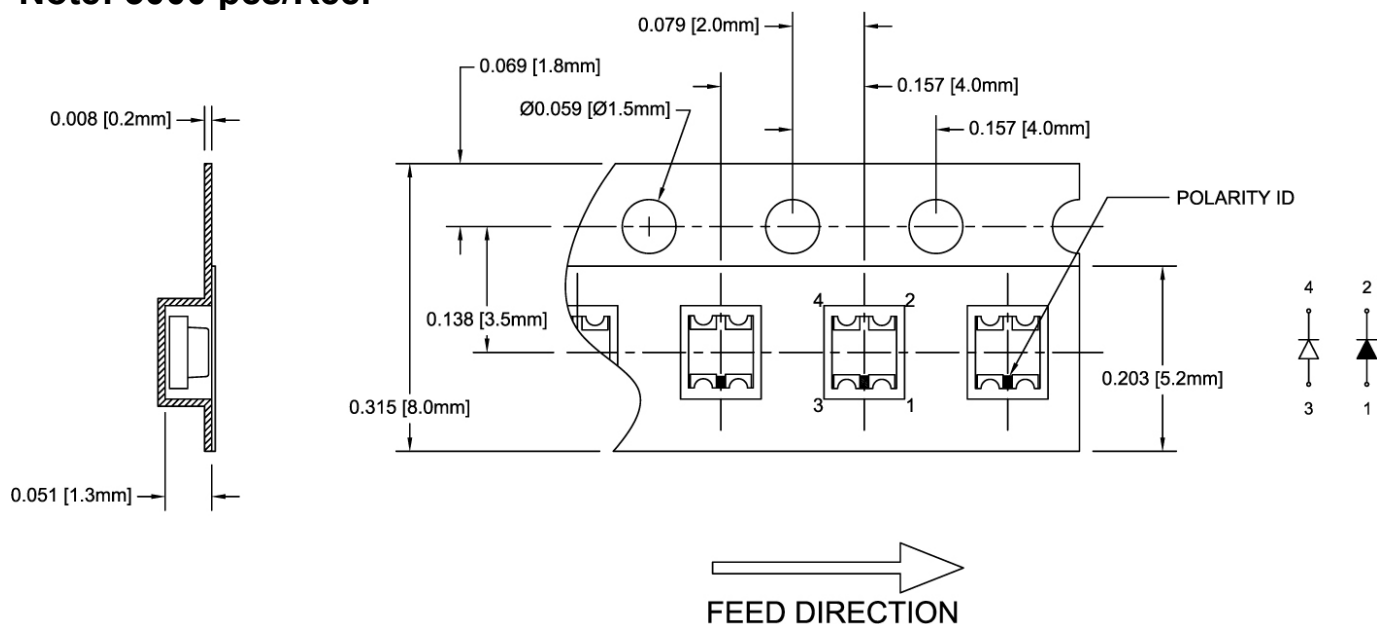


Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 3000 pcs/Reel



Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance: ± 0.010 " unless otherwise noted.

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SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE

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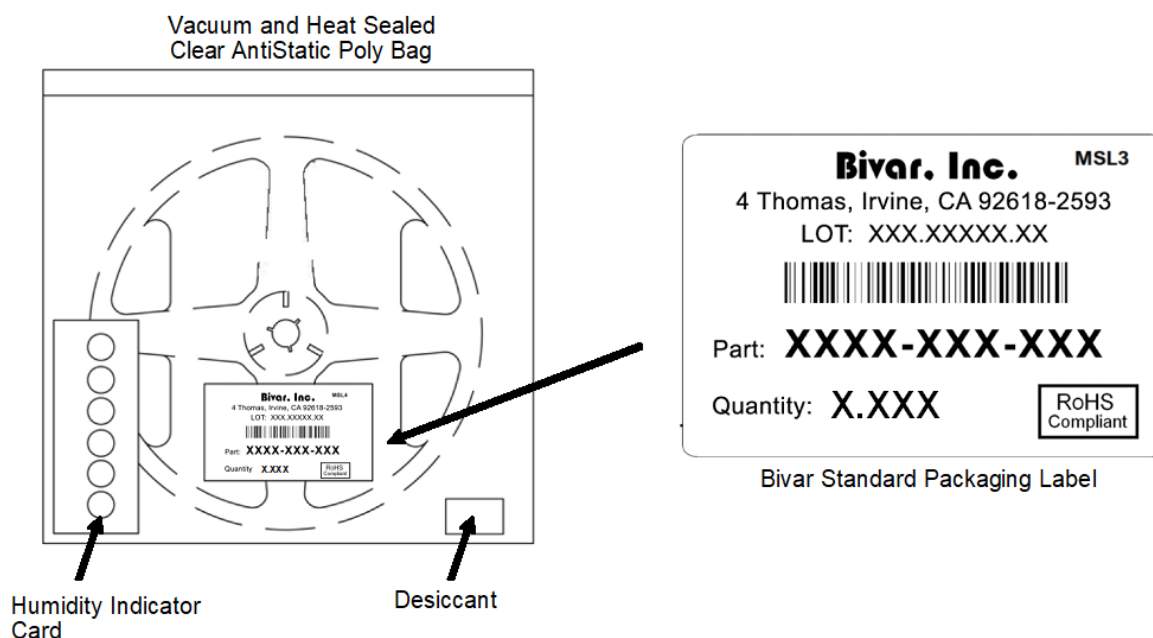


Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted: X.XXX \pm 0.010"
X.X \pm 0.1"

Packaging and Labeling Plan

Note: 1 Reel / Bag



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