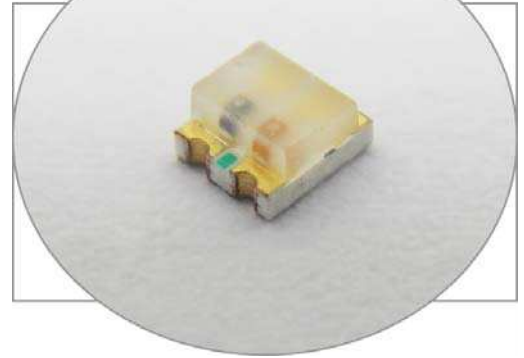


# SURFACE MOUNT LED HE RED/GREEN, 0807 PACKAGE

# BIVAR

## SM0807BC-H/G

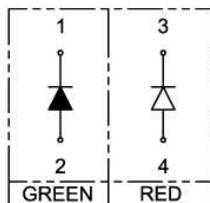
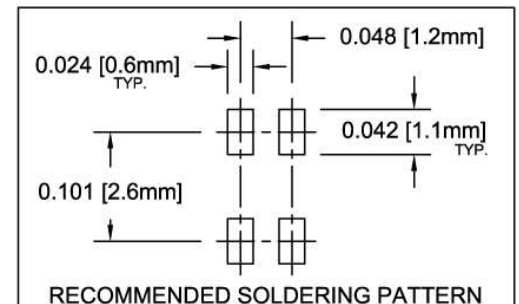
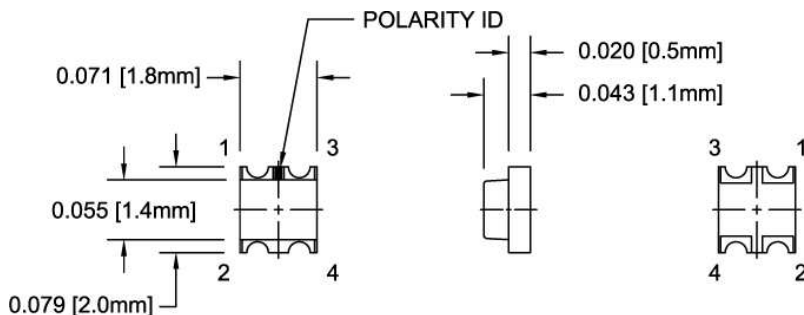
- ◆ Industry Standard Package
- ◆ RoHS Compliant
- ◆ Two Chips in One Package
- ◆ White Diffused Lens
- ◆ Wide Viewing Angle
- ◆ Ideal for Status Indication and Lighting



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 $\lambda_p$ (nm) TYP.	Lens Appearance	Luminous Intensity @ 20mA (mcd) TYP.	Viewing Angle
SM0807BC-H/G	GaAs	HE RED	635	White Diffused	10	120°
	GaP	GREEN	565		16	

## Outline Dimensions



### Outline Drawings Notes:

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



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

# SURFACE MOUNT LED HE RED/GREEN, 0807 PACKAGE



## Absolute Maximum Ratings

T<sub>A</sub> = 25°C unless otherwise noted

Power Dissipation	100 mW
Forward Current ( DC )	30 mA
Peak Forward Current <sup>1</sup>	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 ) <sup>2</sup>	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<sub>A</sub> = 25°C & I<sub>F</sub> = 20 mA unless otherwise noted

Part Number	Emitted Colors	Forward Voltage (V) <sup>1</sup>			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) <sup>2</sup>			Luminous Intensity I <sub>v</sub> (mcd)			Viewing Angle 2Θ ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM0807BC -H/G	HE Red	/	2.0	2.5	/	20	/	100	/	/	/	/	10	/	120
	Green	/	2.2	2.7	/	20	/	100	/	/	/	/	16	/	

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

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# SURFACE MOUNT LED HE RED/GREEN, 0807 PACKAGE



## Typical Electrical / Optical Characteristics

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

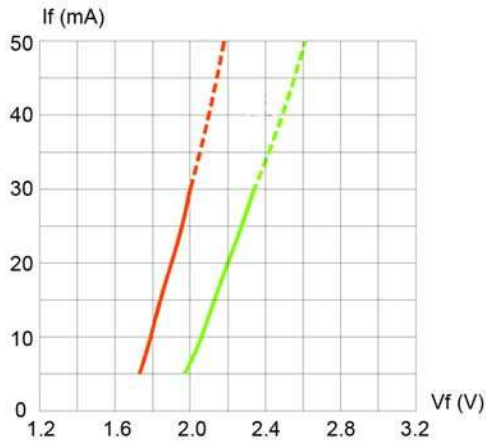


Fig. 1 Forward Current vs. Forward Voltage

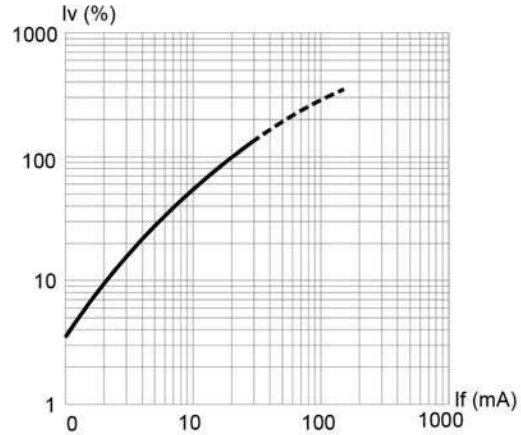


Fig. 2 Relative Luminous Intensity vs. Forward Current

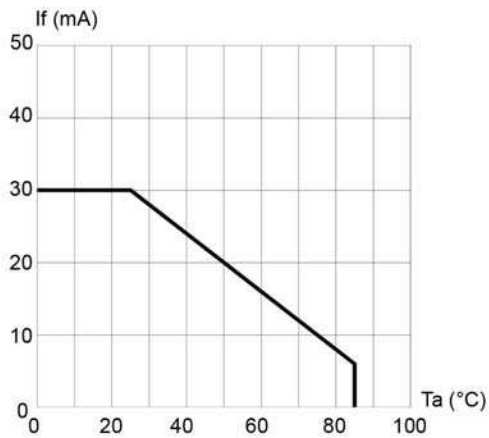


Fig. 3 Forward Current vs. Temperature

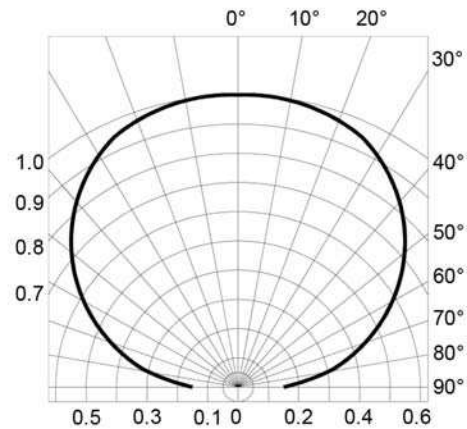


Fig. 4 Directivity Radiation Diagram

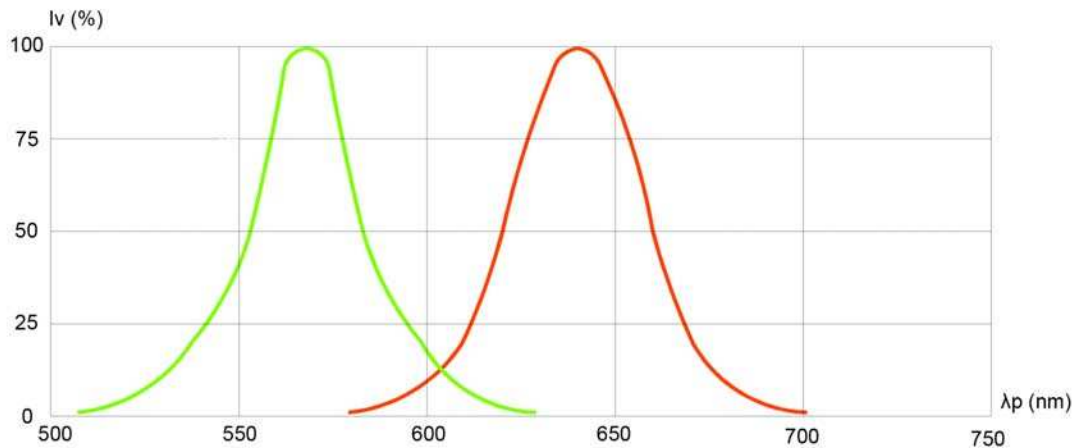


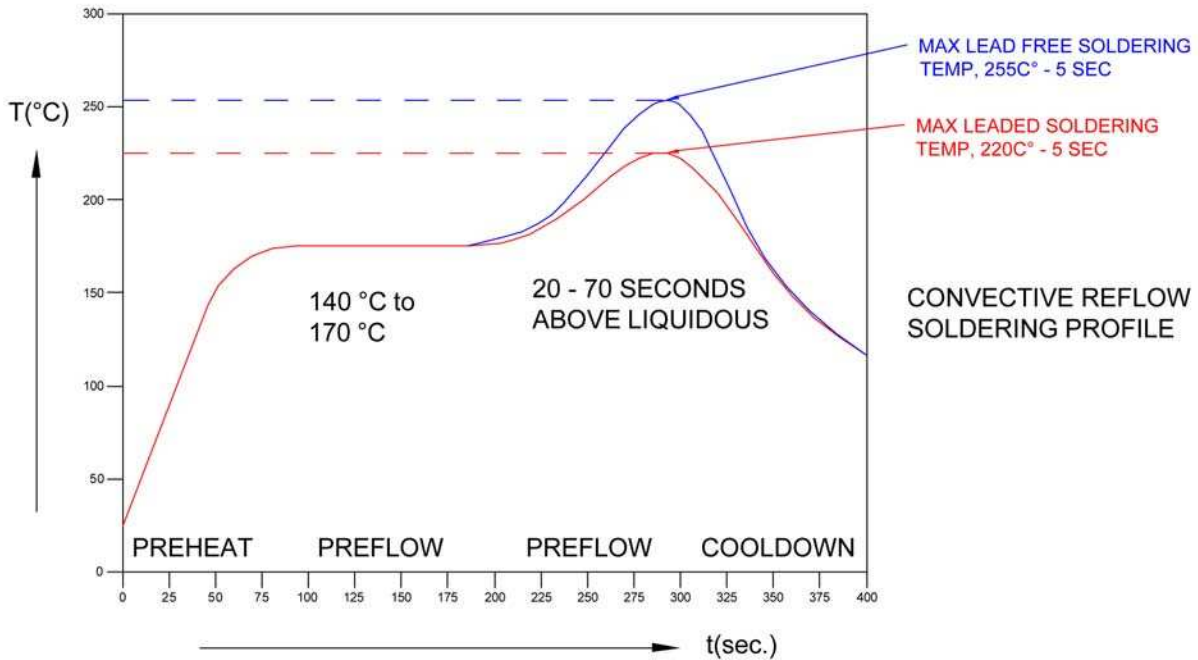
Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

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# SURFACE MOUNT LED HE RED/GREEN, 0807 PACKAGE

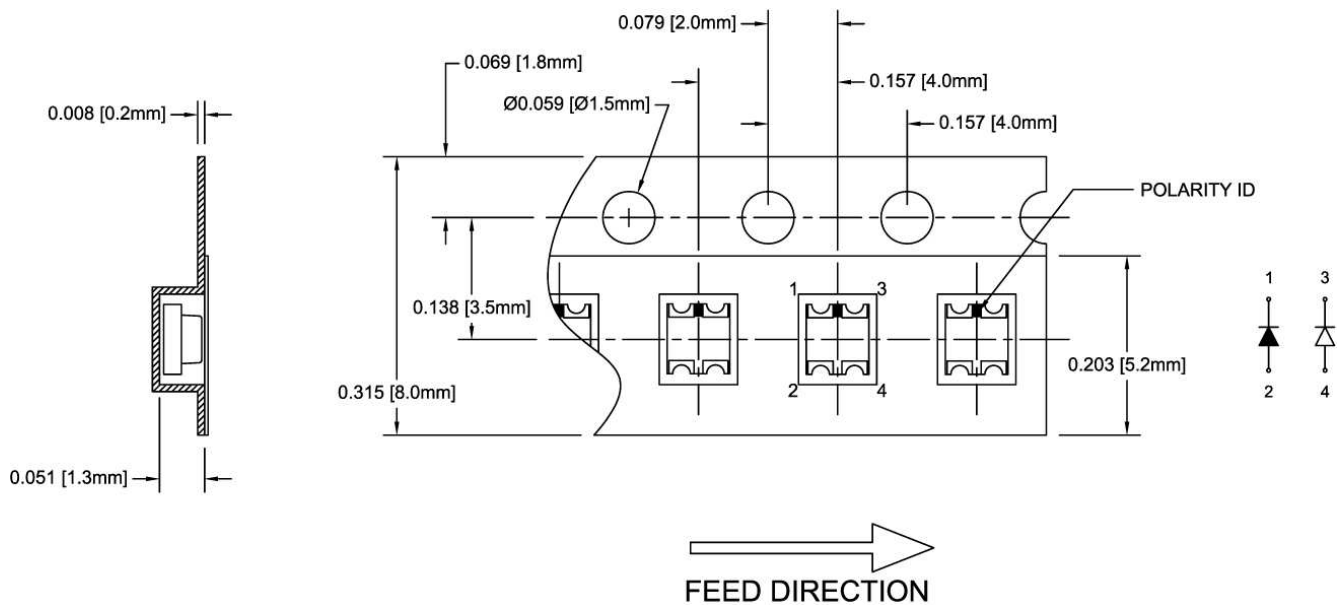


## Recommended Soldering Conditions



## Tape and Reel Dimensions

Note: 3000 pcs/Reel

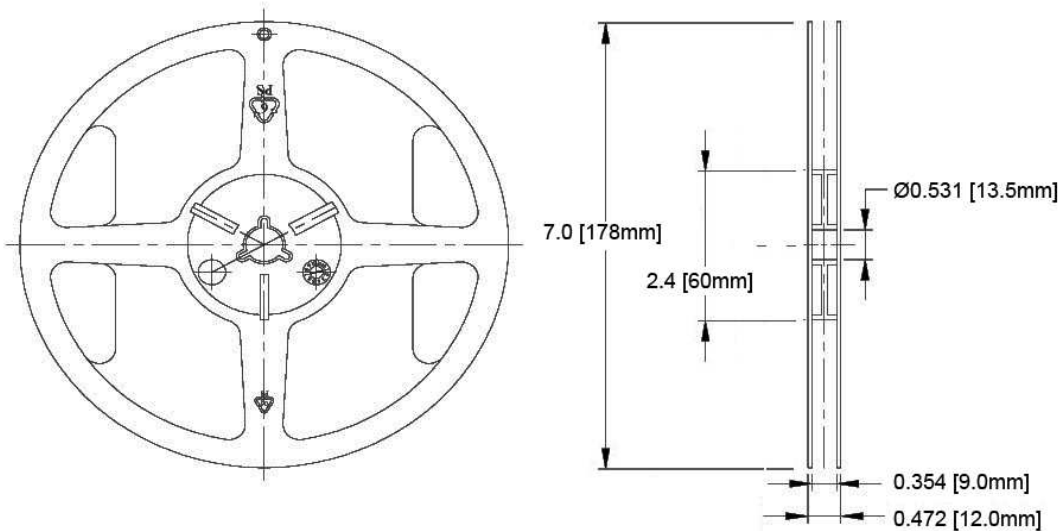


### Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance:  $\pm 0.010''$  unless otherwise noted.

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# SURFACE MOUNT LED HE RED/GREEN, 0807 PACKAGE



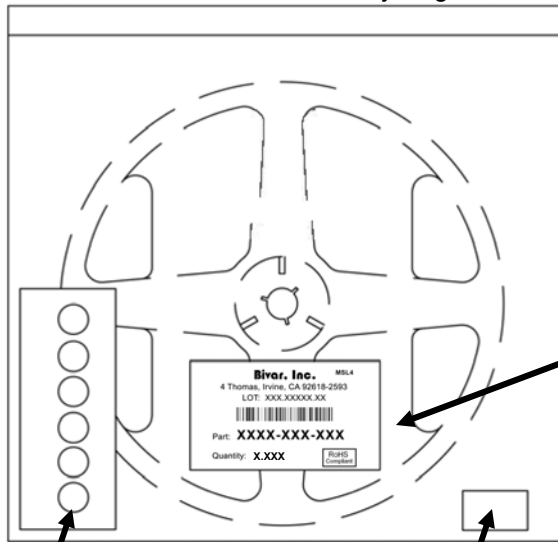
**Outline Drawings Notes:**

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

## Packaging and Labeling Plan

**Note: 1 Reel / Bag**

Vacuum and Heat Sealed  
Clear AntiStatic Poly Bag



Humidity Indicator  
Card

Desiccant



Bivar Standard Packaging Label

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