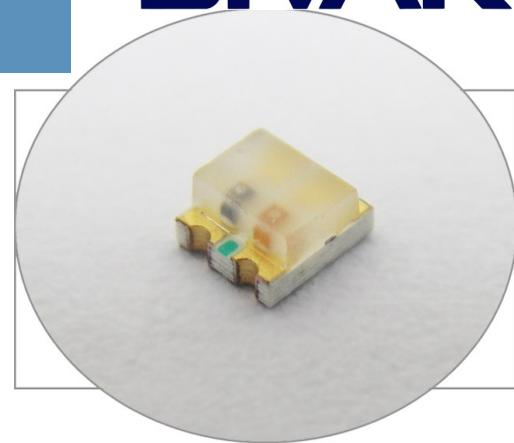


SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE

BIVAR

SM0807BC-RP

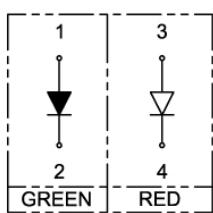
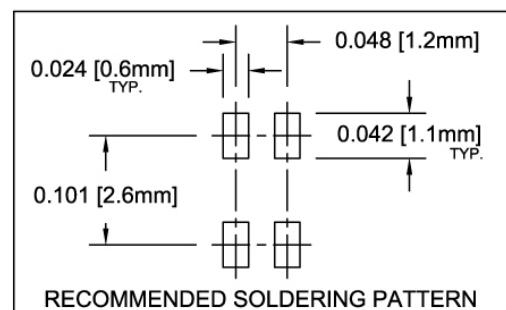
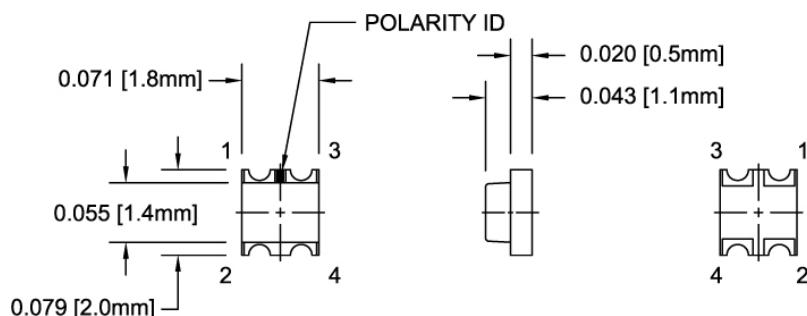
- ◆ Industry Standard Package
- ◆ RoHS Compliant
- ◆ Two Chips in One Package
- ◆ Anode Marking
- ◆ White Diffused Lens
- ◆ Wide Viewing Angle
- ◆ Ideal for Status Indication and Lighting



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 (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: $\pm 0.010"$ unless otherwise noted.



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

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 \leq 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 | | MIN | TYP | MAX | MIN | TYP | MAX | |
| 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 : $\pm 0.05V$.

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

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

Typical Electrical / Optical Characteristics

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

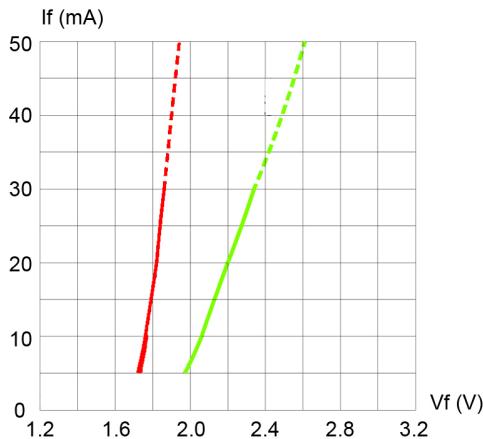


Fig. 1 Forward Current vs. Forward Voltage

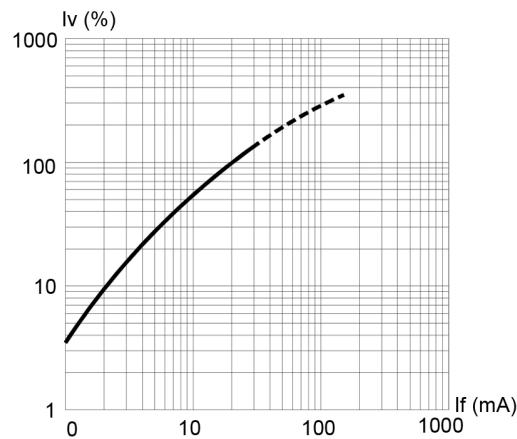


Fig. 2 Relative Luminous Intensity vs. Forward Current

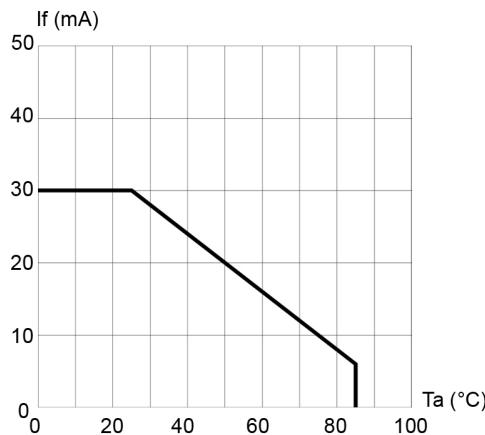


Fig. 3 Forward Current vs. Temperature

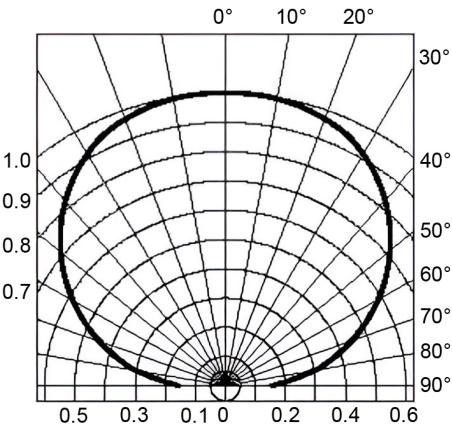


Fig. 4 Directivity Radiation Diagram

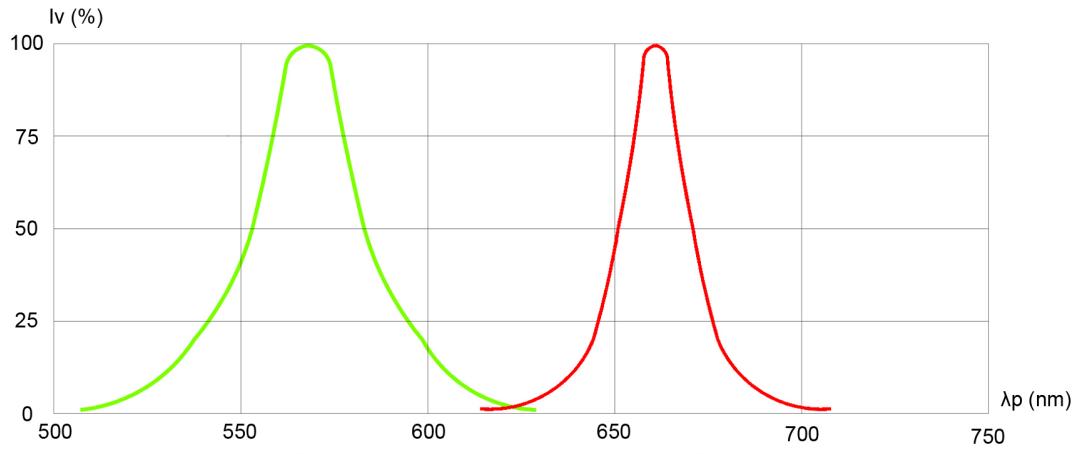
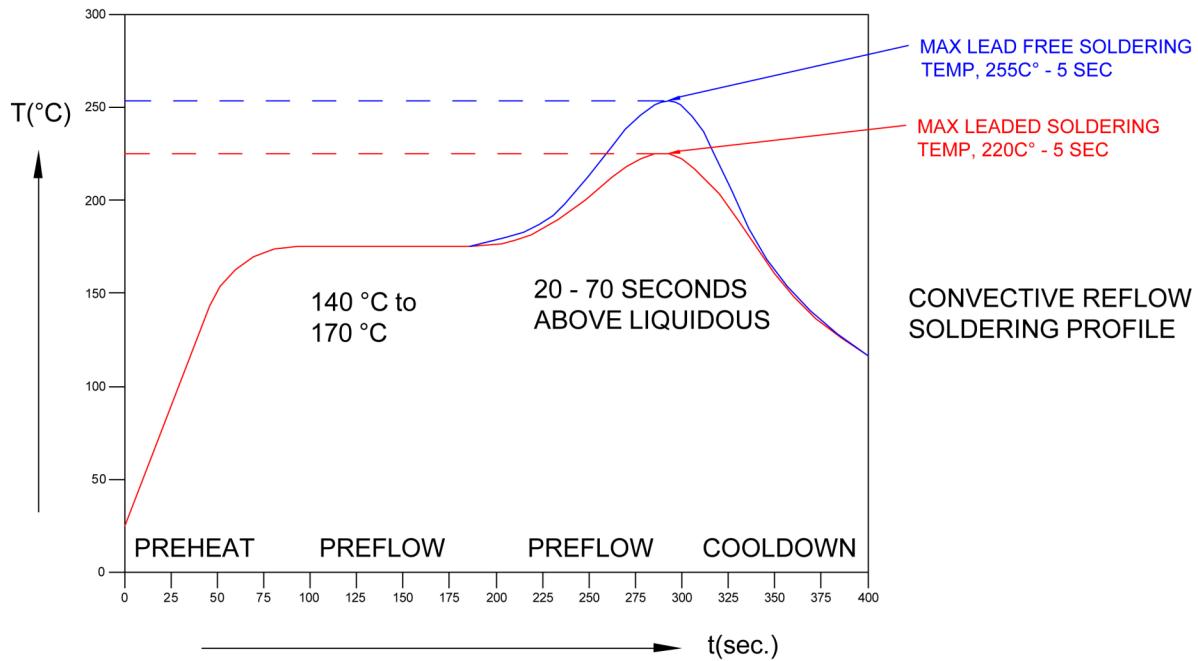


Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

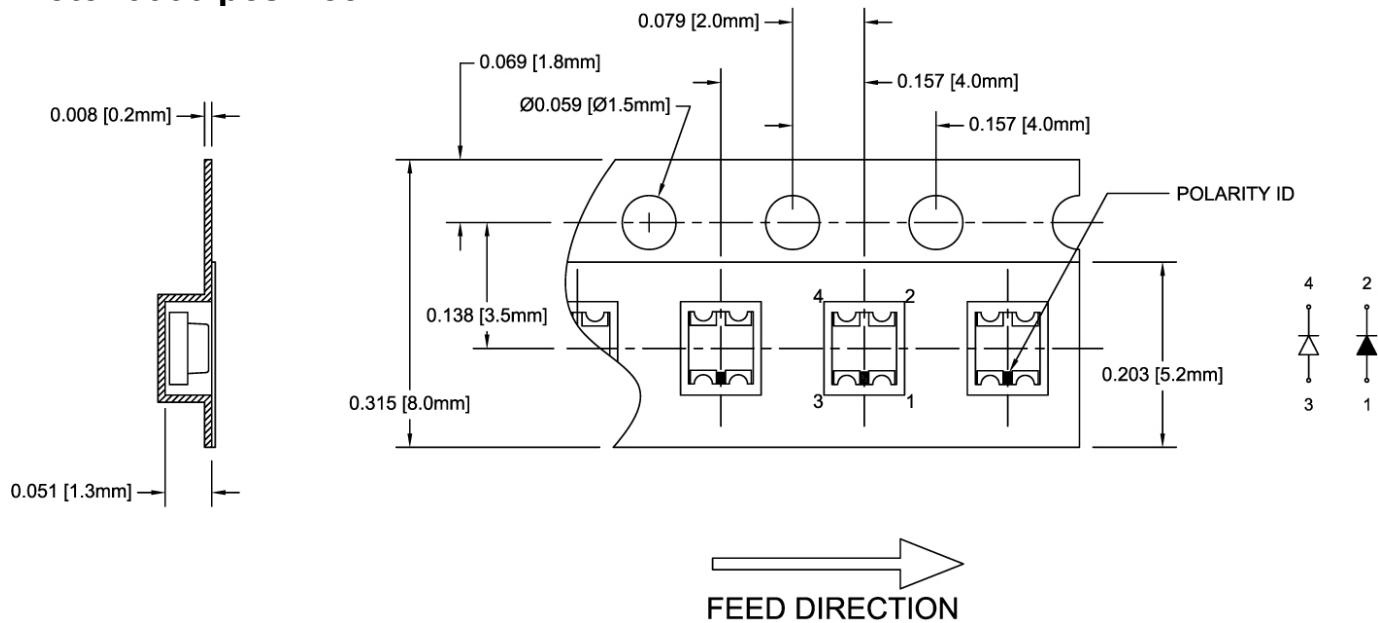
Bivar reserves the right to make changes at any time without notice.

Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 3000 pcs/Reel



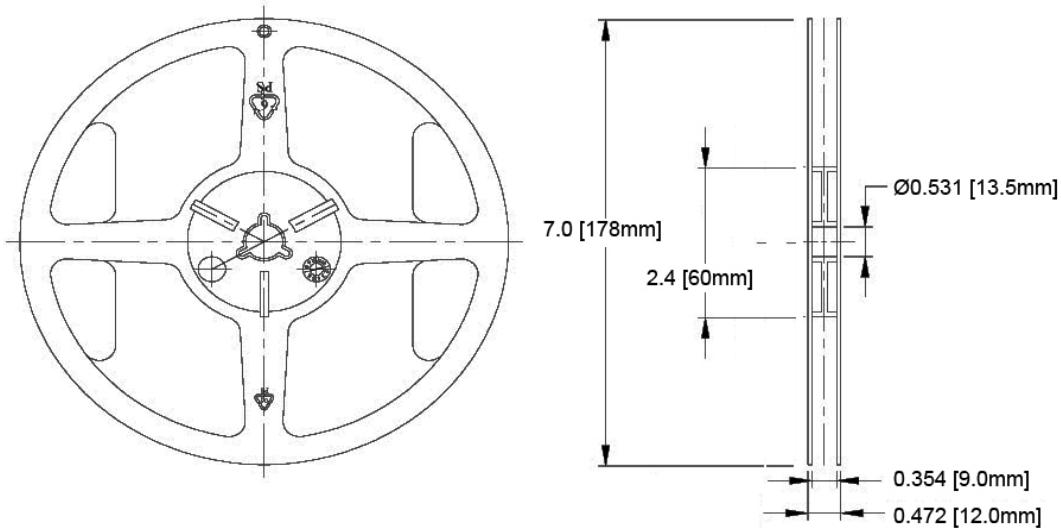
Outline Drawings Notes:

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

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

SURFACE MOUNT LED RED/GREEN, 0807 PACKAGE

BIVAR



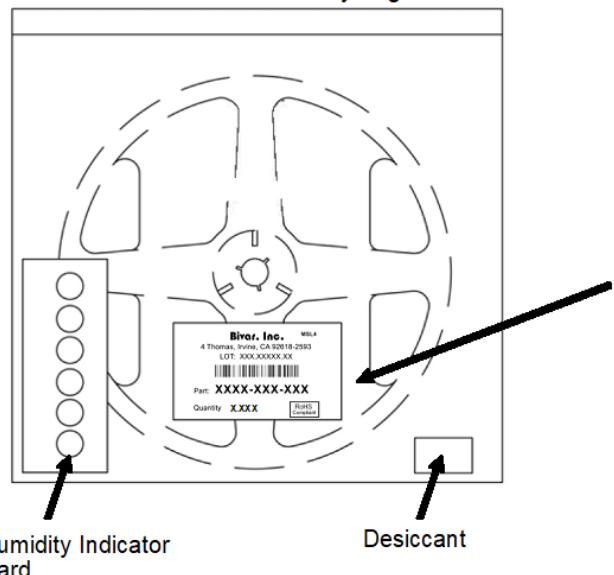
Outline Drawings Notes:

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

Vacuum and Heat Sealed
Clear AntiStatic Poly Bag



Bivar, Inc.

MSL3

4 Thomas, Irvine, CA 92618-2593

LOT: XXX.XXXXX.XX



Part: **XXXX-XXX-XXX**

Quantity: **X.XXX**



Bivar Standard Packaging Label

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