

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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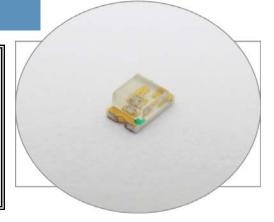




# BIVAR



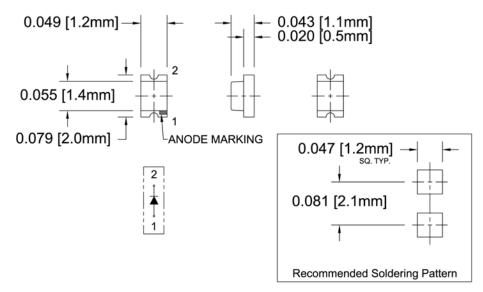
- ♦ Industry Standard 0805 Package
- RoHS Compliant
- ♦ Small Package and Footprint
- **♦** Water Clear Lens
- **♦ Wide Viewing Angle**
- ♦ Ideal for Status Indication, Display, and Backlighting



Bivar Surface Mount 0805 package LED may be used in nearly any lighting or indication application. The miniature package is ideal for small scale applications such as general indication and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment. Bivar offers water clear LED lens for maximum luminous intensity. Wide variety of wavelength and intensity combinations are available to meet any illumination need. The SM0805 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λp(nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle	
SM0805HC	AlGaAs	RED	660	Water Clear	13	130°	

#### **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



## **Absolute Maximum Ratings**

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

Power Dissipation	69 mW
Forward Current ( DC )	30 mA
Peak Forward Current <sup>1</sup>	100 mA
Reverse Voltage	5 V
Operating Temperature Range	-30 ~ +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**

 $T_A = 25^{\circ}C \& I_F = 20 \text{ mA}$  unless otherwise noted

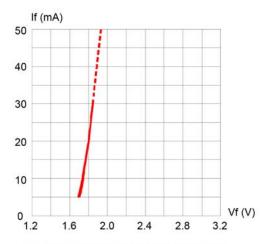
Part Number		Forward Voltage (V) <sup>1</sup>		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant			Luminous Intensity Iv (mcd)			Viewing Angle 2 O ½ (deg)	
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM0805HC	/	1.85	2.3	/	20	/	10	1	643	/	6	13	/	130

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



# **Typical Electrical / Optical Characteristics**

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



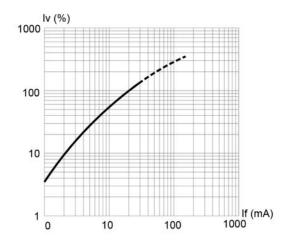
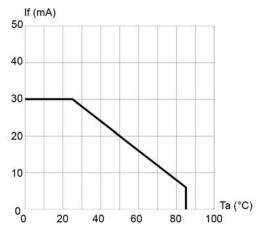


Fig. 1 Forward Current vs. Forward Voltage

Fig. 2 Relative Luminous Intensity vs. Forward Current



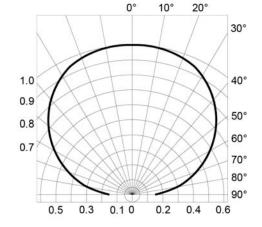
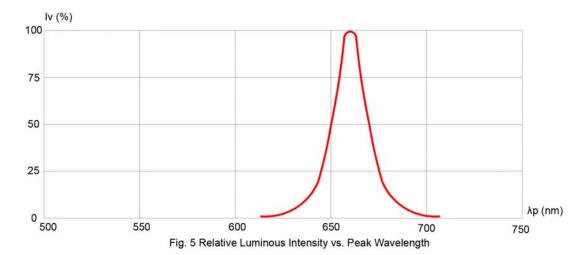


Fig. 3 Forward Current vs. Temperature

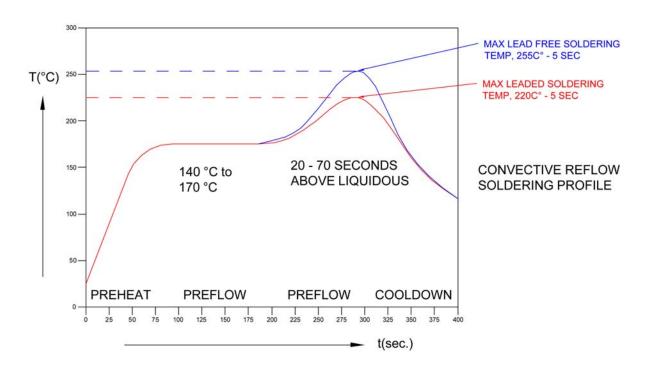
Fig. 4 Directivity Radiation Diagram



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

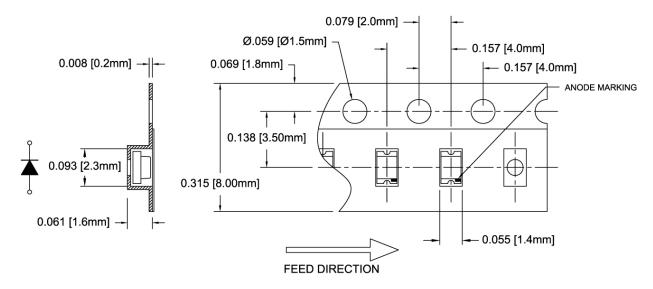


#### **Recommended Soldering Conditions**



#### **Tape and Reel Dimensions**

Note: 3000 pcs/Reel

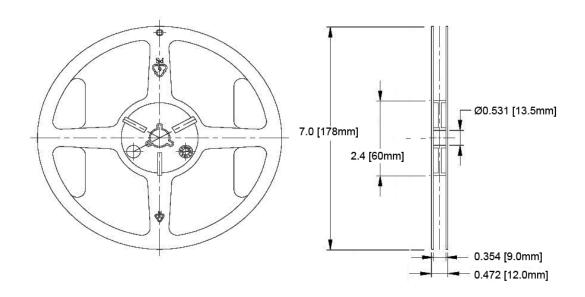


#### Outline Drawings Notes:

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

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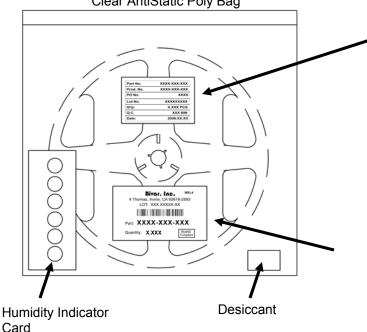




### **Packaging and Labeling Plan**

Note: 1 Reel / Bag

Vacuum and Heat Sealed Clear AntiStatic Poly Bag



#### **Outline Drawings Notes:**

1. All dimensions are in inches [millimeters].

2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"

X.X ± 0.1

XXXX-XXX-XXX					
XXXX-XXX-XXX					
xxx					
XXXXXXXX					
X.XXX PCS					
XXX BIN					
2008.XX.XX					

Internal Quality Control

Bivar. Inc.

MSL4

4 Thomas, Irvine, CA 92618-2593 LOT: XXX.XXXXX.XX



Part: XXXX-XXX

Quantity: XXXX

RoHS Compliant

Bivar Standard Packaging Label