# BIVAR



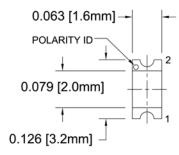
- **♦** RoHS Compliant
- ♦ Small Package and Footprint
- **♦** Water Clear Lens
- ♦ Wide Viewing Angle
- ♦ Ideal for Status Indication, Display, and Backlighting

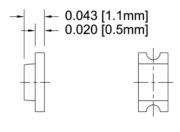


Bivar Surface Mount 1206 package LED may be used in nearly any lighting or indication application. The miniature package is ideal for small scale applications such as general indication and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment. 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 SM1206 LED is packaged in standard tape and reels for pick and place assemblies.

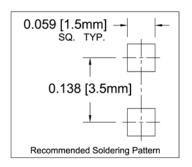
Part Number	Material	Emitted Color	Peak Wavelength λp(nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM1206GC	AlGaInP	GREEN	568	Water Clear	15	140°

#### **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	78 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

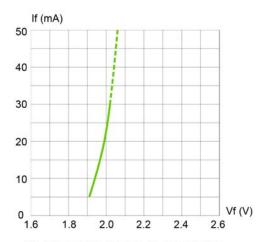
Part Number		Forward Voltage (V) <sup>1</sup>		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant		-	Luminous Intensity Iv (mcd)			Viewing Angle 2 Θ ½ (deg)	
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206GC	/	2.1	2.6	/	20	/	10	1	565	/	6	15	1	140

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



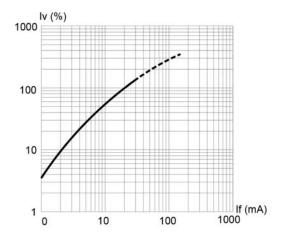
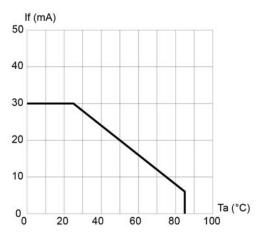


Fig. 1 Forward Current vs. Forward Voltage

Fig. 2 Relative Luminous Intensity vs. Forward Current



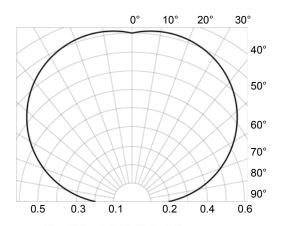
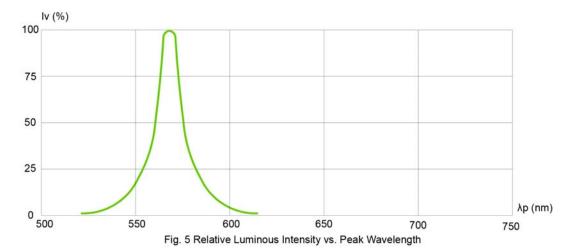


Fig. 3 Forward Current vs. Temperature

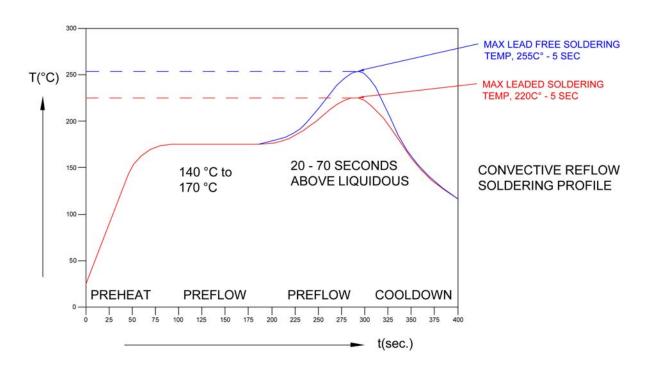
Fig. 4 Directivity Radiation Diagram



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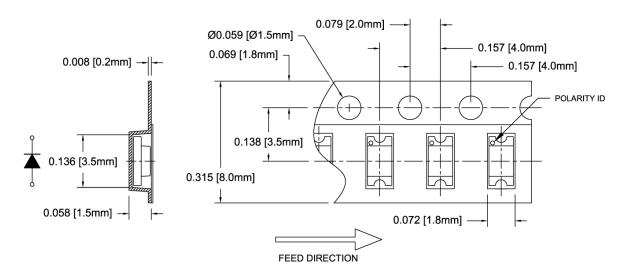


#### **Recommended Soldering Conditions**



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

Note: 3000 pcs/Reel

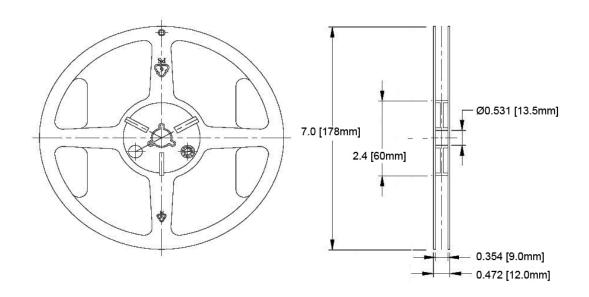


#### Outline Drawings Notes:

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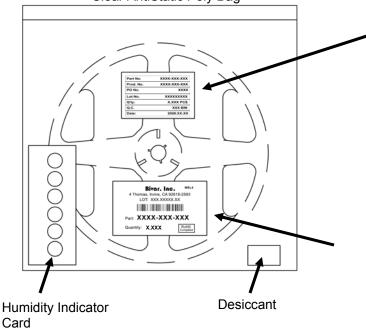




### **Packaging and Labeling Plan**

Note: 1 Reel / 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
xxxx
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

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

BIVAR: SM1206GC