# BIVAR

#### SM1206NAC-IL

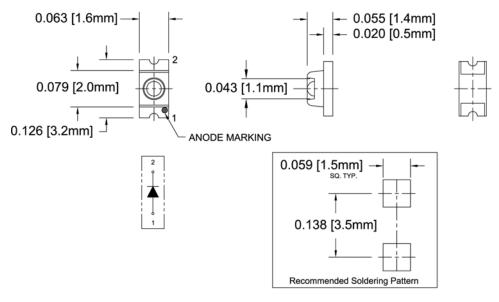
- ♦ Industry Standard 1206 Package
- **♦** RoHS Compliant
- ♦ Water Clear Inner Lens
- ♦ High Luminous Intensity
- ♦ Narrow Viewing Angle
- Ideal for Status Indication, Display, and Backlighting



Bivar Surface Mount 1206 Inner Lens package LED may be used in nearly any lighting or indication application. The water clear inner lens provides a narrow viewing angle and high luminous intensity making it suitable for small scale applications such as display, backlighting, and general indication. Low power consumption and excellent long life reliability are ideal for battery powered equipment. Wide variety of wavelength and intensity combinations are available to meet any illumination need. The SM1206-IL 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
SM1206NAC-IL	AlGaInP	AMBER	610	Water Clear	1450	30°

#### **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**

 $T_A = 25$ °C &  $I_F = 20$  mA unless otherwise noted

Part Number		Forward Voltage (V) <sup>1</sup>		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant Wavelength (nm) <sup>2</sup>		Luminous Intensity Iv (mcd)			Viewing Angle 2 Θ ½ (deg)		
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206NAC-IL	/	2.1	2.6	/	20	/	10	/	605	/	1050	1450	/	30

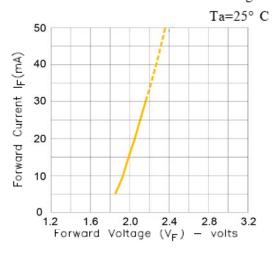
Notes: 1. Tolerance of forward voltage: ±0.05V. 2. Tolerance of dominant wavelength: ±5.0nm.



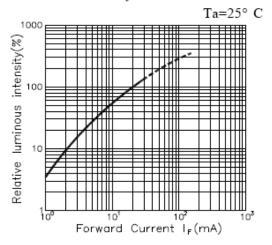
### **Typical Electrical / Optical Characteristics**

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

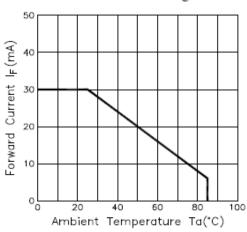
Forward Current Vs. Forward Voltage



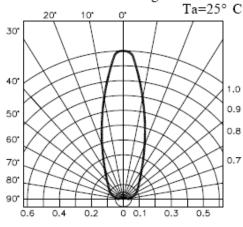
Luminous Intensity Vs. Forward Current



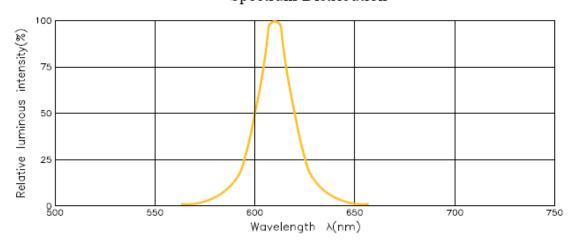
Forward Current Derating Curve



Radiation Diagram



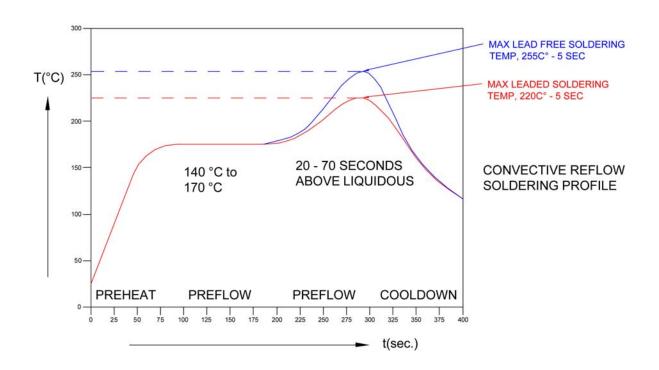
#### Spectrum Distribution



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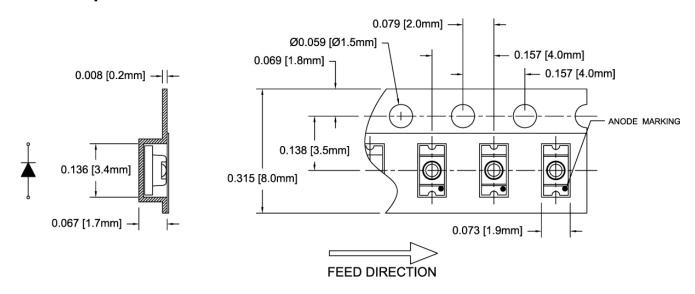


#### **Recommended Soldering Conditions**



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

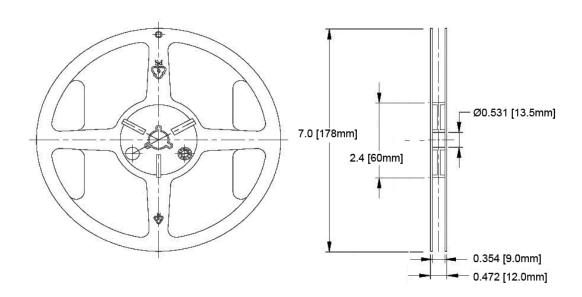
Note: 3000 pcs/Reel



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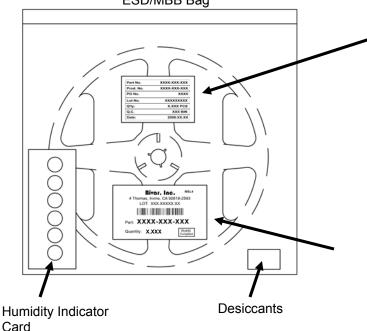




### **Packaging and Labeling Plan**

Note: 1 Reel / Bag

Vacuum and Heat Sealed ESD/MBB Bag



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

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

Part No.	XXXX-XXX-XXX				
Prod. No.	XXXX-XXX-XXX				
PO No.	xxxx				
Lot No.	xxxxxxxx				
Q'ty:	X.XXX PCS				
Q.C.	XXX BIN				
Date:	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