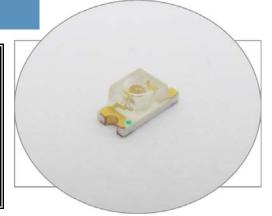
# BIVAR



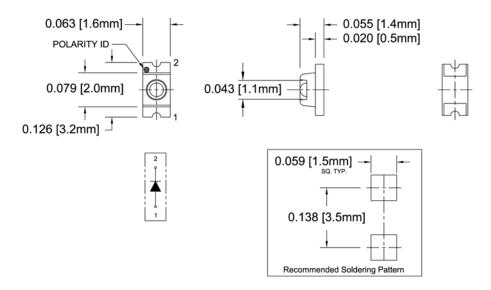
- ♦ Industry Standard 1206 Package
- **♦** RoHS Compliant
- ♦ Water Clear Inner Lens
- **♦** High Luminous Intensity
- ♦ Narrow Viewing Angle
- ♦ Ideal for Status Indication, Display, and Backlighting



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
SM1206NBWC-IL	InGaN	BLUE	468	Water Clear	950	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	100 mW		
Forward Current ( DC )	25 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 O ½ (deg)		
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206NBWC-IL	1	3.1	3.6	1	20	/	10	/	470	/	750	950	/	30

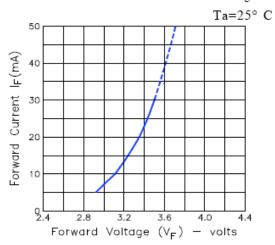
Notes: 1. Tolerance of forward voltage: ±0.05V. 2. Tolerance of dominant wavelength: ±5.0nm.



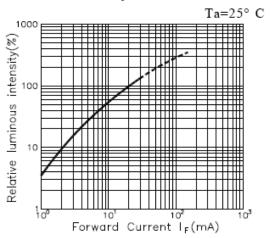
# **Typical Electrical / Optical Characteristics**

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

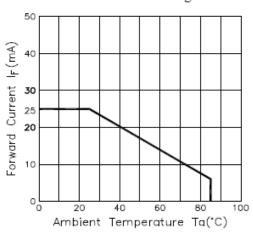
Forward Current Vs. Forward Voltage



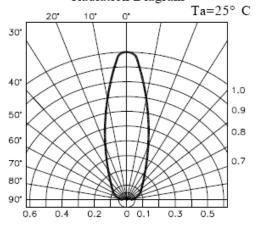
Luminous Intensity Vs. Forward Current



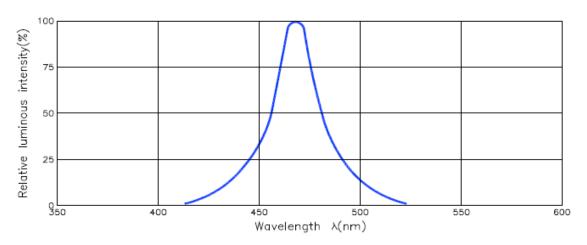
Forward Current Derating Curve



Radiation Diagram



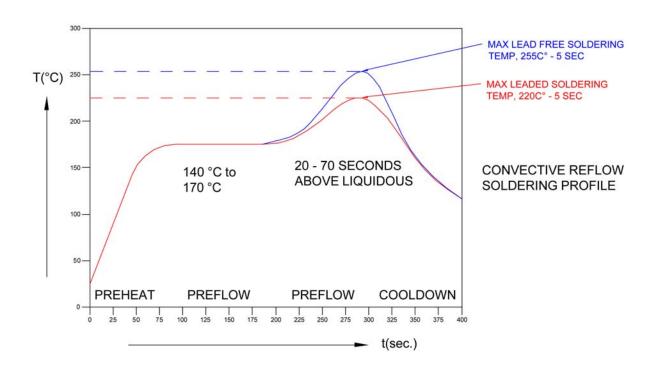
Spectrum Distribution



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

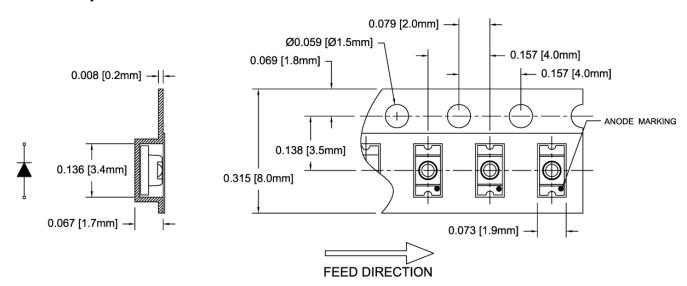


#### **Recommended Soldering Conditions**



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

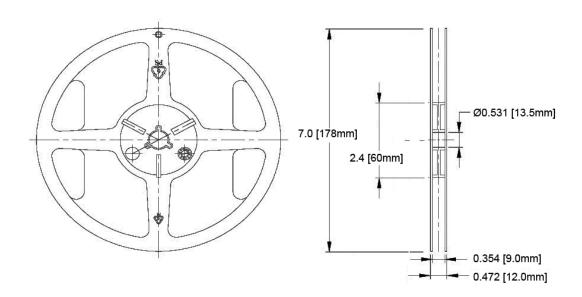
Note: 3000 pcs/Reel



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

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

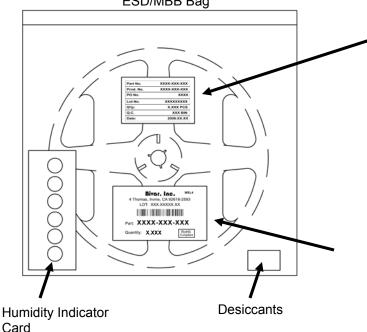




### **Packaging and Labeling Plan**

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"

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

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1SURSYGW/S530-A2 598-8040-100F 598-8070-100F 598-8140-100F 598-8610-200F EAPL3527GA5 67-11/BHC-M1N2B8Y/2A0 SML
LXL1209SYC/ATR EASV3020YGA0 EAST16086YA5 CMD91-21VRC/TR7