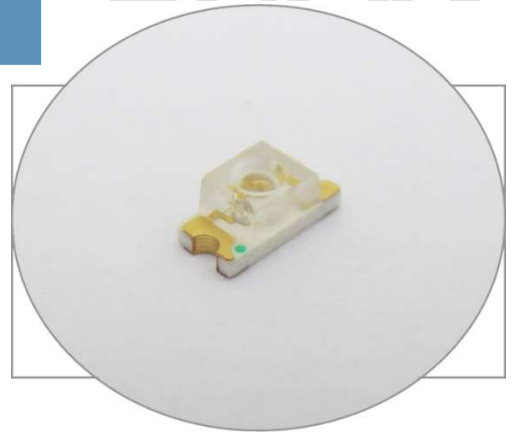


# SURFACE MOUNT LED AMBER, 1206 IL PACKAGE

# BIVAR

## SM1206AC-IL

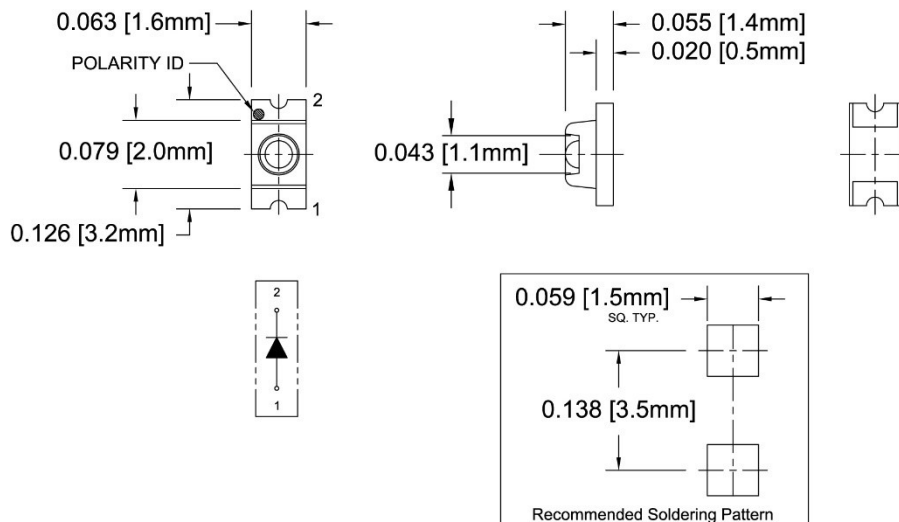
- ◆ Industry Standard 1206 Footprint
- ◆ RoHS Compliant
- ◆ Water Clear Inner Lens
- ◆ High Luminous Intensity
- ◆ Narrow Viewing Angle
- ◆ Ideal for Status Indication, Display, and Backlighting



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 $\lambda_p$ (nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM1206AC-IL	GaAsP	Amber	610	Water Clear	18	30°

## 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.

# SURFACE MOUNT LED AMBER, 1206 IL PACKAGE



## 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	-40 - +85°C
Storage Temperature Range	-40 - +85°C
Lead Soldering Temperature ( 3 mm from the base of the epoxy bulb ) <sup>2</sup>	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<sub>A</sub> = 25°C & I<sub>F</sub> = 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 I <sub>v</sub> (mcd) <sup>3</sup>			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206AC-IL	1.8	2.0	2.3	/	20	/	10	/	602	/	9	18	28.5	30

Notes: 1. Tolerance of forward voltage : ±0.1V. 2. Tolerance of dominant wavelength : ±1.0nm. 3. Tolerance of luminous intensity : ±10%

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# SURFACE MOUNT LED AMBER, 1206 IL PACKAGE



## Typical Electrical / Optical Characteristics

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

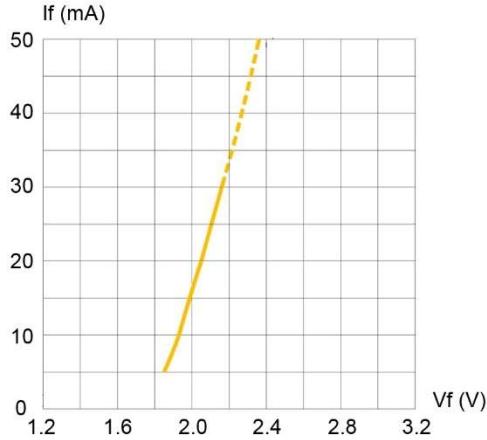


Fig. 1 Forward Current vs. Forward Voltage

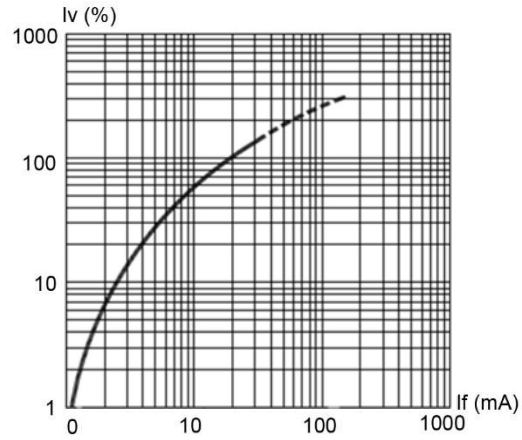


Fig. 2 Relative Luminous Intensity vs. Forward Current

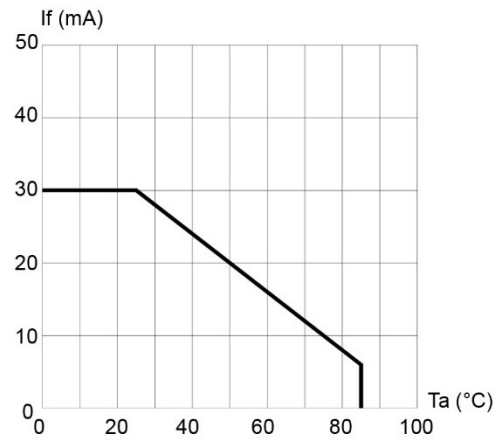


Fig. 3 Forward Current vs. Temperature

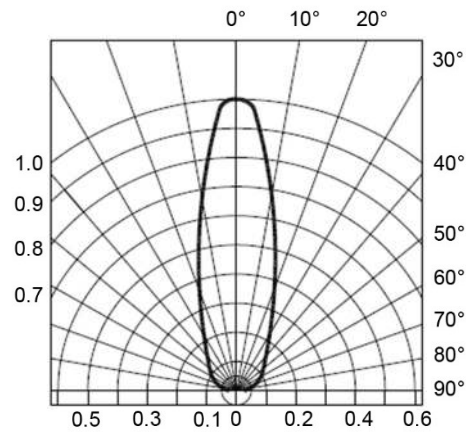


Fig. 4 Directivity Radiation Diagram

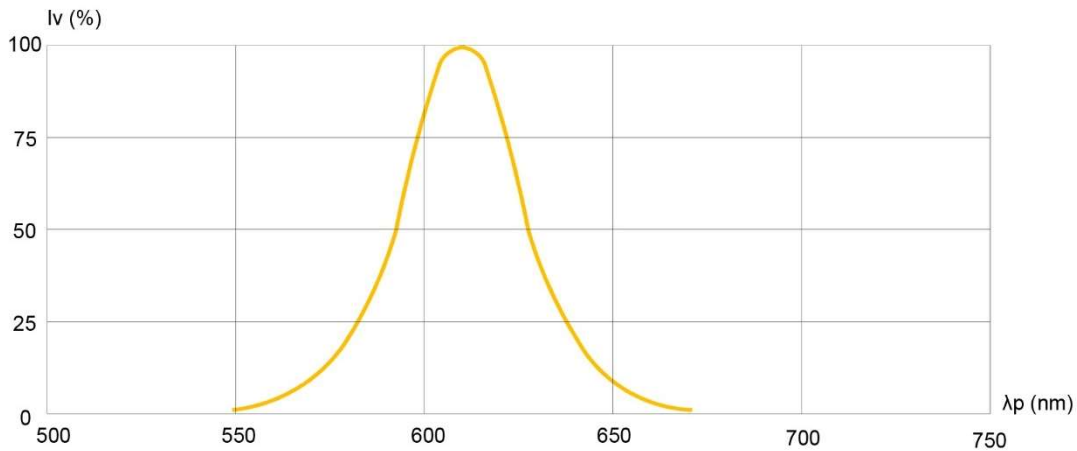


Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

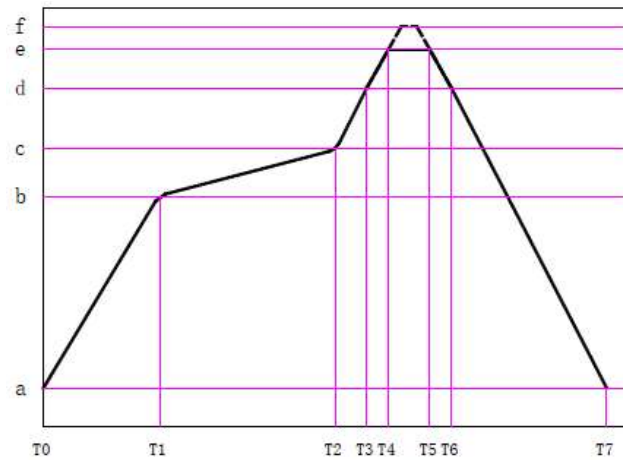
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# SURFACE MOUNT LED AMBER, 1206 IL PACKAGE



## Recommended Soldering Conditions

Temp. (°C)		Time (Sec)	
a	25	T0~T1	Max. 3°C/sec
b	150	T1~T2	90~130 sec
c	200	T2~T4	Max. 3°C/sec
d	220	T3~T6	Max. 50sec
e	245		
f	Max. 260		Max. 10sec
		T5~T7	Max. -3°C/sec
Belt Speed		70~90 cm/min	

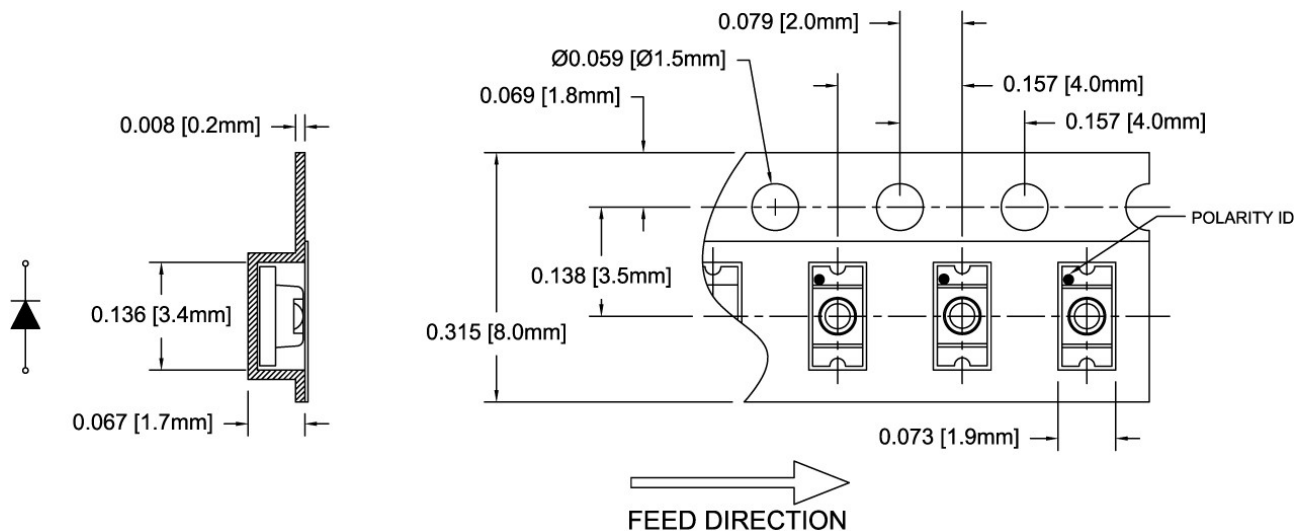


## Soldering Iron

1. Temperature at tip of iron: 300°C Max. (25W Max.)
2. Soldering time: 5 ± 1sec.

## Tape and Reel Dimensions

Note: 3000 pcs/Reel

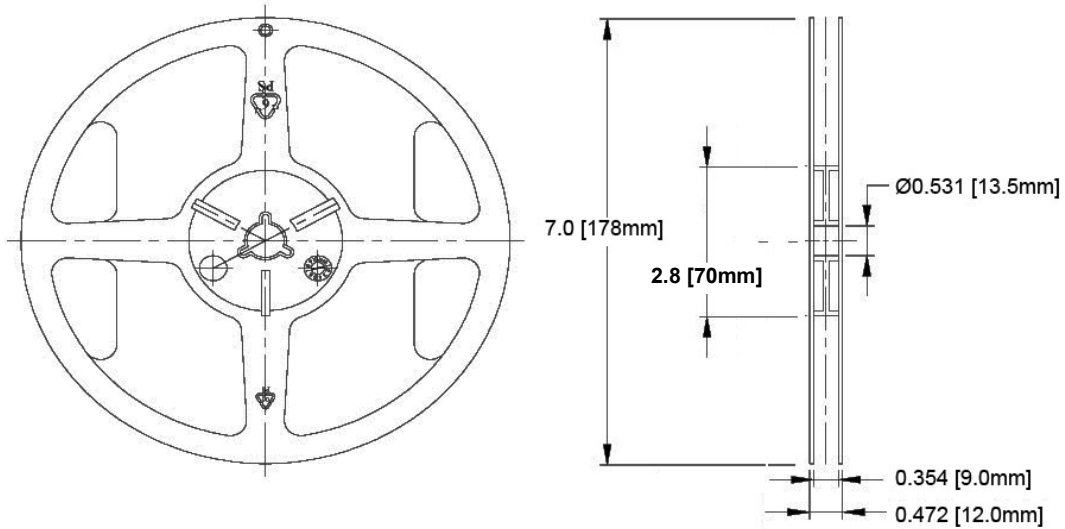


### Outline Drawings Notes:

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

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# SURFACE MOUNT LED AMBER, 1206 IL PACKAGE



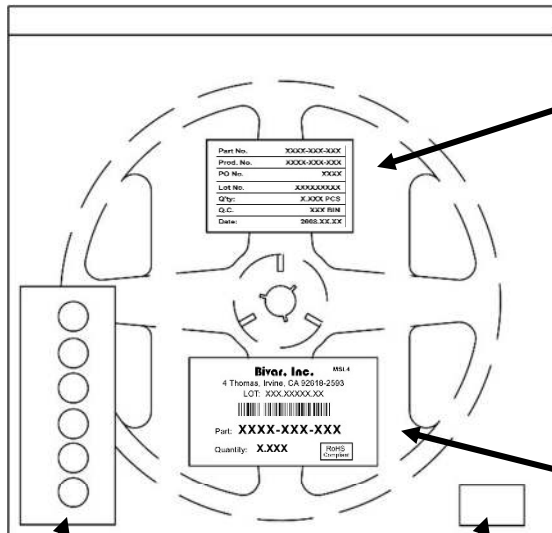
#### Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"  
X.X ± 0.1"

## Packaging and Labeling Plan

Note: 1 Reel / Bag

Vacuum and Heat Sealed  
Clear AntiStatic Poly Bag



Humidity Indicator  
Card

Desiccant

Part No.	XXXX-XXX-XXX
Prod. No.	XXXX-XXX-XXX
PO No.	XXXX
Lot No.	XXXXXXXXXX
Q'ty:	X.XXX PCS
Q.C.	XXX BIN
Date:	2008.XX.XX

Internal Quality Control  
Label

**Bivar, Inc.** MSL4

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



Part: **XXXX-XXX-XXX**

Quantity: **X.XXX**

RoHS  
Compliant

Bivar Standard Packaging Label

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