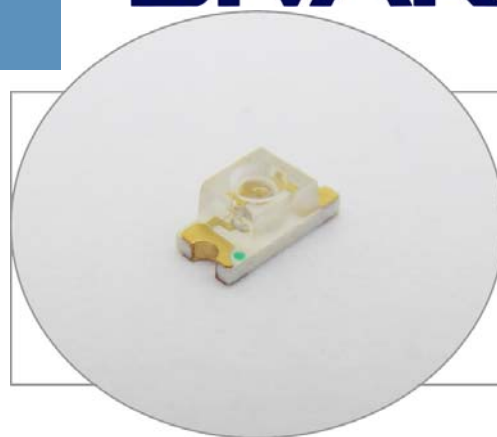


SURFACE MOUNT LED YELLOW, 1206 IL PACKAGE

BIVAR

SM1206NYC-IL

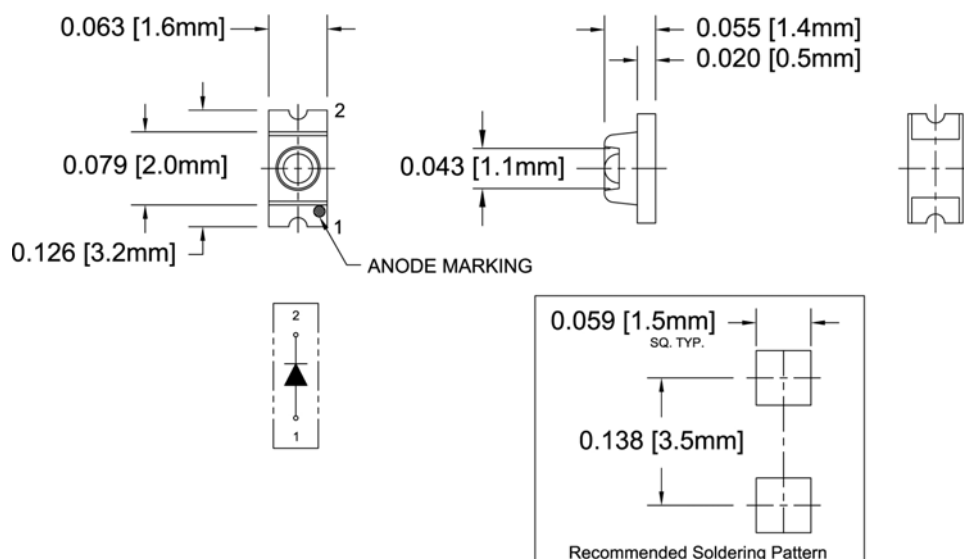
- ◆ Industry Standard 1206 Package
- ◆ RoHS Compliant
- ◆ Water Clear Inner Lens
- ◆ High Luminous Intensity
- ◆ Narrow Viewing Angle
- ◆ Ideal for Status Indication, Display, and Backlighting



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 λ_p (nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM1206NYC-IL	AlInGaP	YELLOW	590	Water Clear	1000	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.

SURFACE MOUNT LED YELLOW, 1206 IL PACKAGE



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	78 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	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) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _v (mcd)			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206NYC-IL	/	2.0	2.6	/	20	/	10	/	592	/	650	1000	/	30

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

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

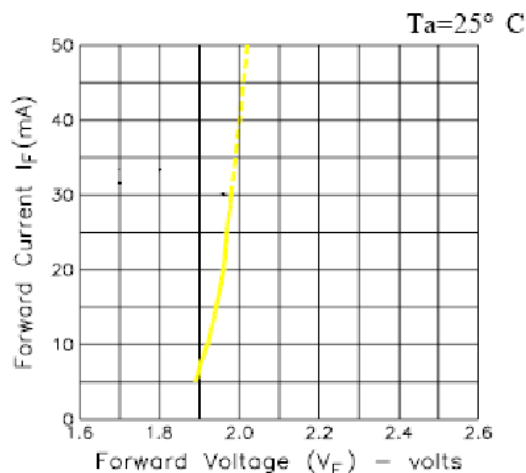
SURFACE MOUNT LED YELLOW, 1206 IL PACKAGE



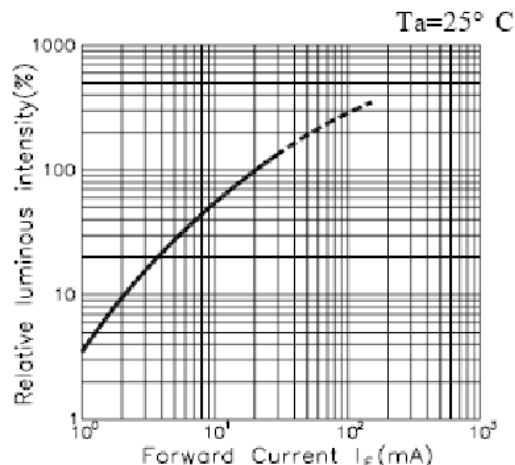
Typical Electrical / Optical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

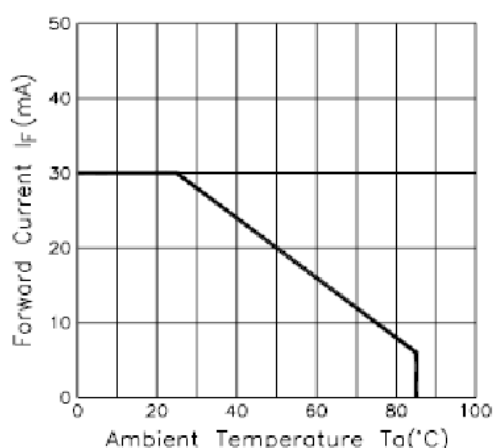
Forward Current Vs. Forward Voltage



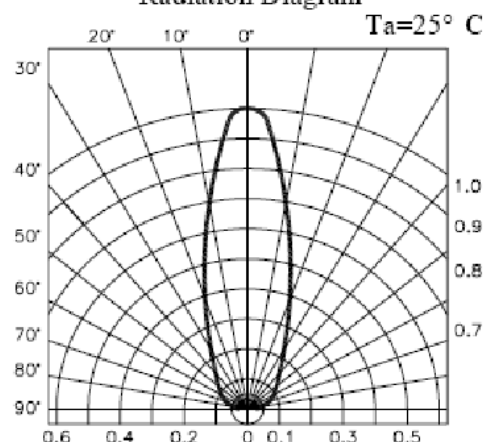
Luminous Intensity Vs. Forward Current



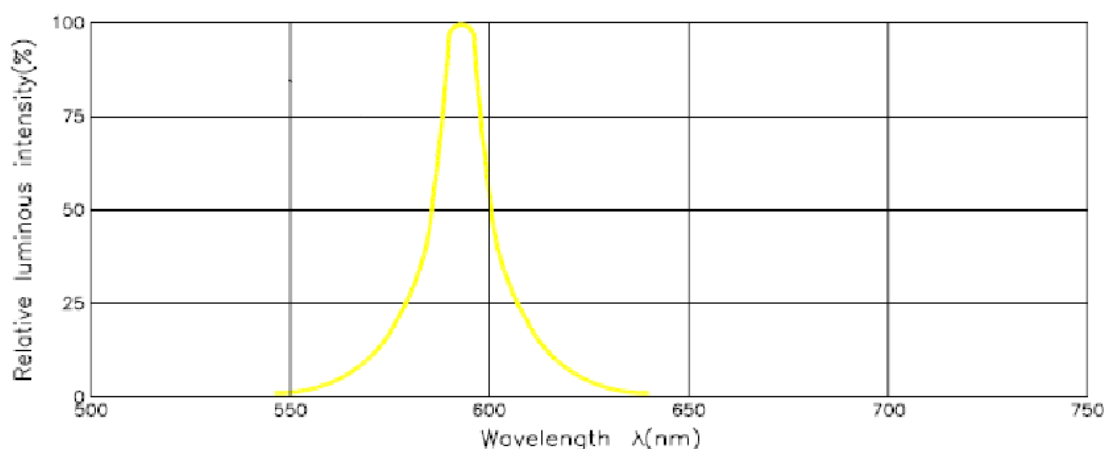
Forward Current Derating Curve



Radiation Diagram



Spectrum Distribution

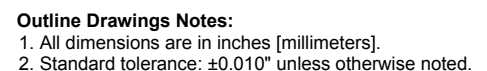


Bivar reserves the right to make changes at any time without notice.

The graph illustrates the temperature profile for convective reflow soldering, comparing leaded and lead-free processes. The y-axis represents Temperature $T(^{\circ}\text{C})$ from 0 to 300, and the x-axis represents time $t(\text{sec.})$ from 0 to 400. The profile is divided into four phases: PREHEAT, PREFLOW, PREFLOW, and COOLDOWN. The red curve shows the maximum temperature for leaded soldering, peaking at 220°C for 5 seconds. The blue curve shows the maximum temperature for lead-free soldering, peaking at 255°C for 5 seconds. Dashed lines indicate the target temperature levels for each process. Text annotations specify a temperature range of 140°C to 170°C during the first preflow phase and a duration of 20 to 70 seconds above the liquidous temperature during the second preflow phase.

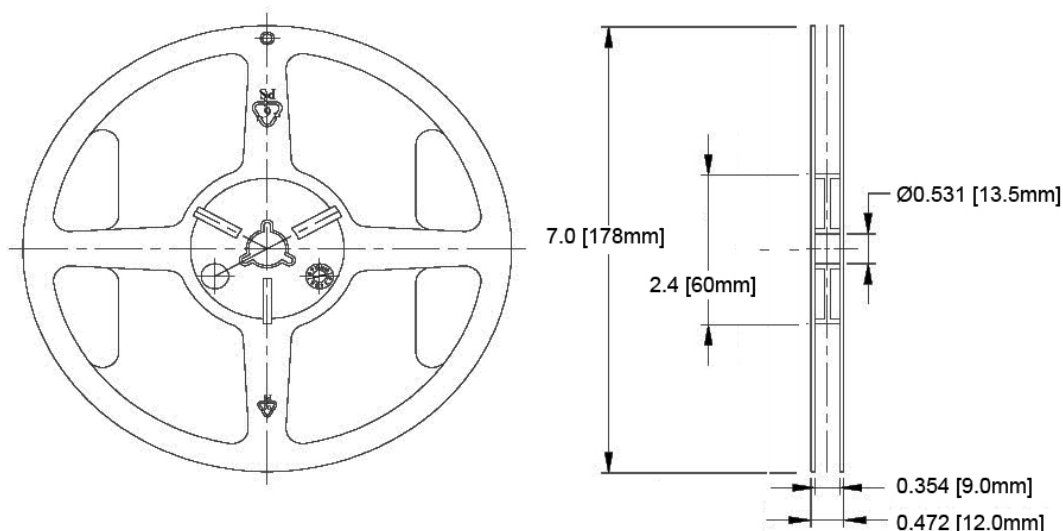
Phase	Time Range (sec.)	Temperature Range ($^{\circ}\text{C}$)	Notes
PREHEAT	0 - 100	0 - 170	
PREFLOW	100 - 200	170 - 175	140°C to 170°C
PREFLOW	200 - 300	175 - 255	20 - 70 SECONDS ABOVE LIQUIDOUS
COOLDOWN	300 - 400	255 - 120	

Note: 3000 pcs/Reel



SURFACE MOUNT LED YELLOW, 1206 IL PACKAGE

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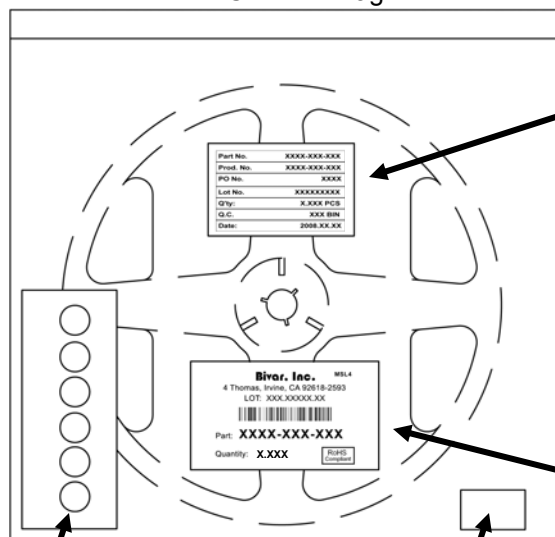
Outline Drawings Notes:

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

Packaging and Labeling Plan

Note: 1 Reel / Bag

Vacuum and Heat Sealed
ESD/MBB Bag



Humidity Indicator
Card

Desiccants
Card

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



Bivar Standard Packaging Label

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