

SURFACE MOUNT LED WHITE, 1206 IL PACKAGE

BIVAR

SM1206NUWC-IL

- ◆ Industry Standard 1206 Package
- ◆ RoHS Compliant
- ◆ Diffused 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 diffused 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	Chromaticity Coordinates (±.05)	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM1206NUWC-IL	InGaN	WHITE	X=.30, Y=.29	Diffused	750	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.

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Absolute Maximum Ratings

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

Power Dissipation	100 mW
Forward Current (DC)	25 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 \leq 0.1 msec. 2. Solder time less than 5 seconds at temperature extreme.

Electrical / Optical Characteristics

$T_A = 25^\circ\text{C}$ & $I_F = 20$ 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 $2\theta_{1/2}$ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206NUWC-IL	/	3.1	4.2	/	20	/	10	/	/	/	450	750	/	30

Notes: 1. Tolerance of forward voltage : $\pm 0.05\text{V}$. 2. Tolerance of dominant wavelength : $\pm 5.0\text{nm}$.

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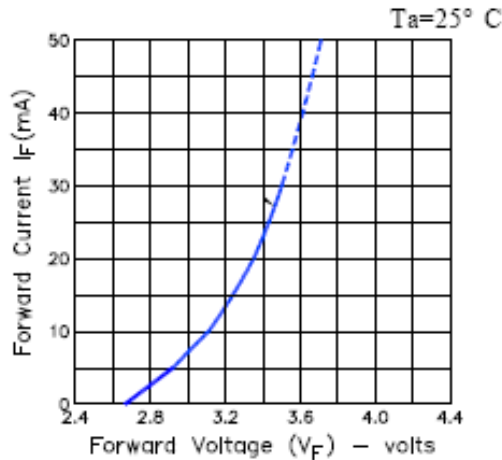
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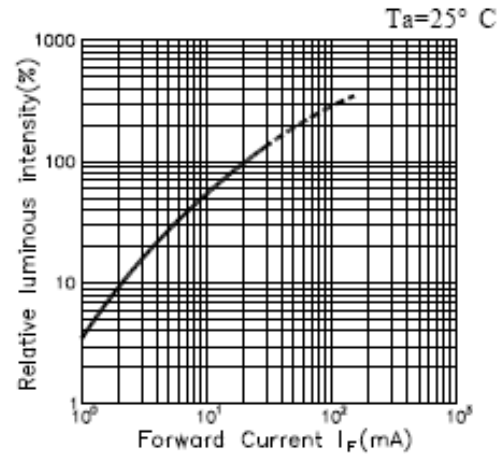
Typical Electrical / Optical Characteristics

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

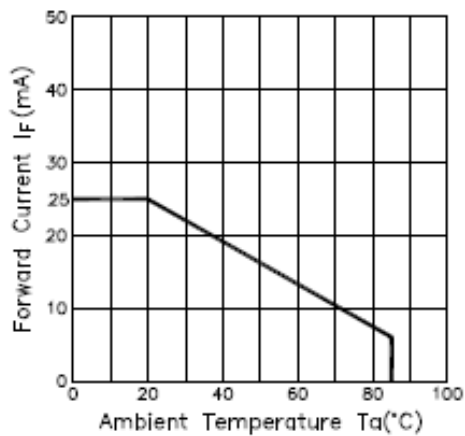
Forward Current Vs. Forward Voltage



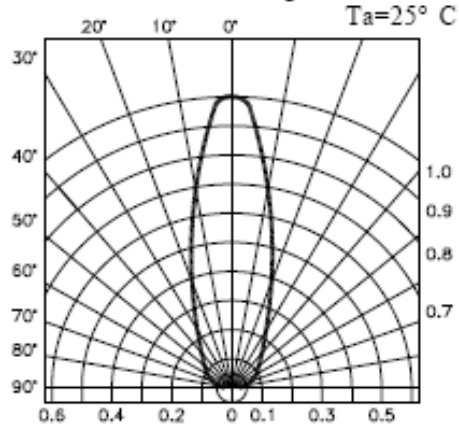
Luminous Intensity Vs. Forward Current



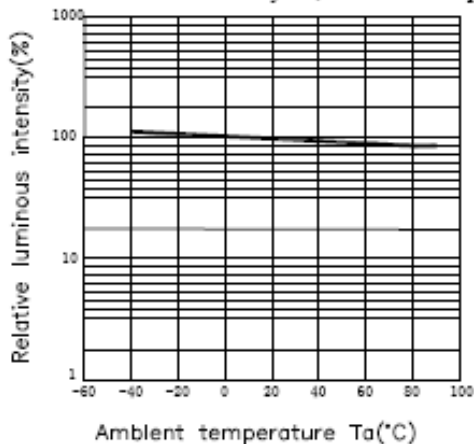
Forward Current Derating Curve



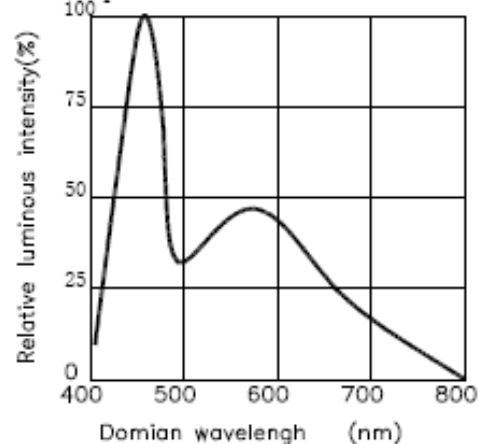
Radiation Diagram



Luminous intensity vs. Ambient temperature



Spectrum Distribution



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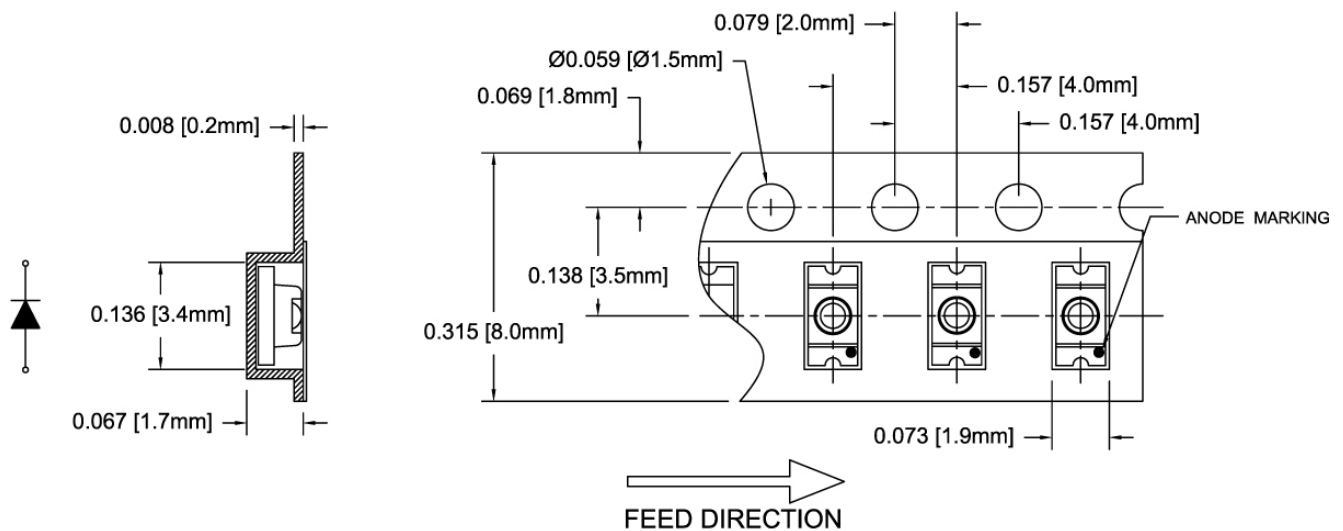


Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 3000 pcs/Reel



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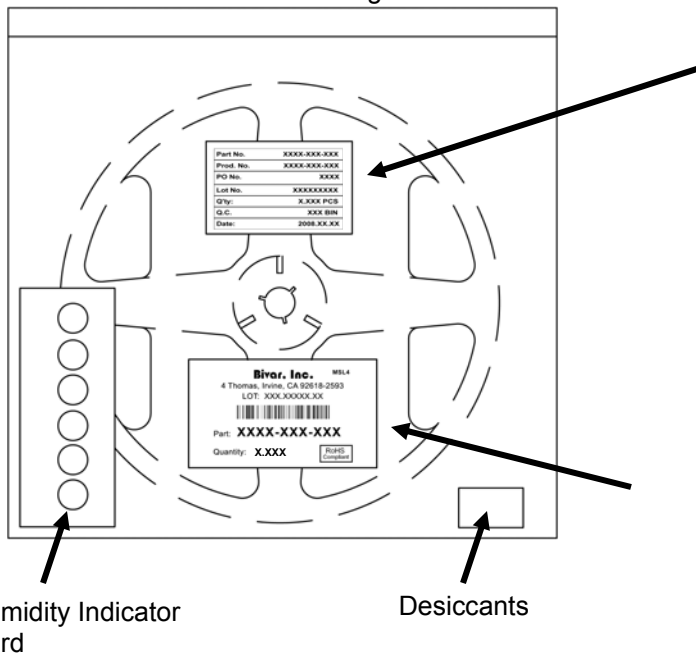
Outline Drawings Notes:

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
ESD/MBB Bag



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, Inc. MSL4

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



Part: **XXXX-XXX-XXX**

Quantity: **X.XXX**

RoHS
Compliant

Bivar Standard Packaging Label

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