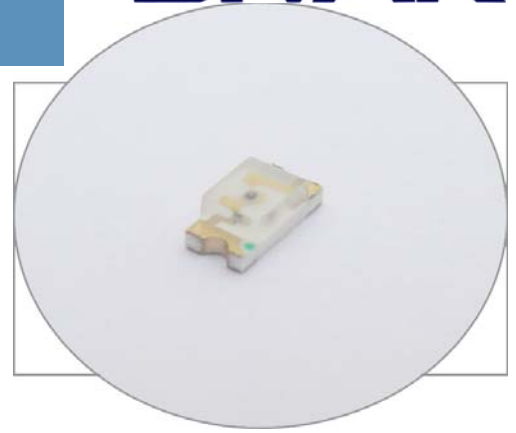


SURFACE MOUNT LED WHITE, 1206 PACKAGE

BIVAR



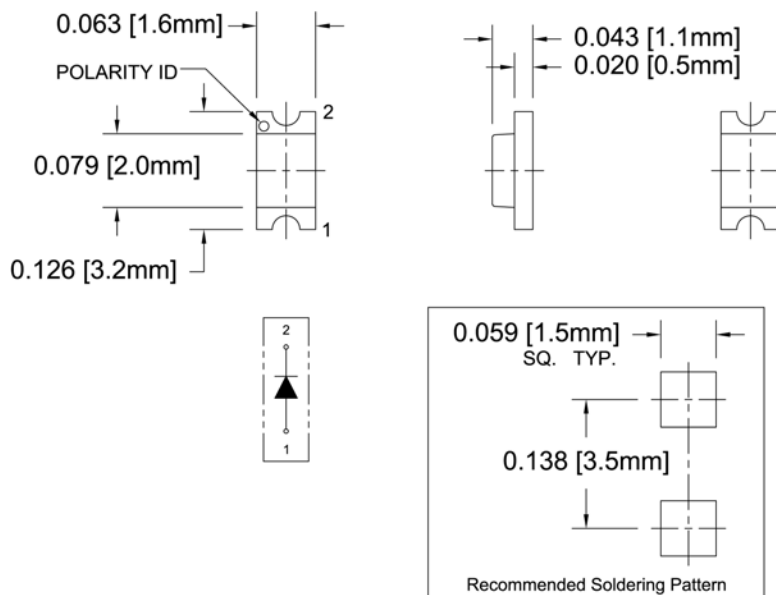
SM1206UWC

- ◆ Industry Standard 1206 Package
- ◆ RoHS Compliant
- ◆ Small Package and Footprint
- ◆ Diffused Lens
- ◆ Wide Viewing Angle
- ◆ Ideal for Status Indication, Display, and Backlighting

Bivar Surface Mount 1206 package LED may be used in nearly any lighting or indication application. The miniature package is ideal for small scale applications such as general indication and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment. Bivar offers diffused LED lens for uniform light output. Wide variety of wavelength and intensity combinations are available to meet any illumination need. The SM1206 LED is packaged in standard tape and reels for pick and place assemblies.

| Part Number | Material | Emitted Color | Chromaticity Coordinates | Lens Appearance | Luminous Intensity (mcd) TYP. | Viewing Angle |
|-------------|----------|---------------|--------------------------|-----------------|-------------------------------|---------------|
| SM1206UWC | InGaN | WHITE | X = .29, Y = .29 | Diffused | 450 | 140° |

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 WHITE, 1206 PACKAGE



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

$T_A = 25^\circ\text{C}$ & $I_F = 20\text{ mA}$ 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 |
| SM1206UWC | / | 3.3 | 4.2 | / | 20 | / | 10 | n/a | n/a | n/a | 285 | 450 | / | 140 |

Notes: 1. Tolerance of forward voltage : $\pm 0.05\text{V}$. 2. Tolerance of dominant wavelength : $\pm 1.0\text{nm}$.

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SURFACE MOUNT LED WHITE, 1206 PACKAGE



Typical Electrical / Optical Characteristics

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

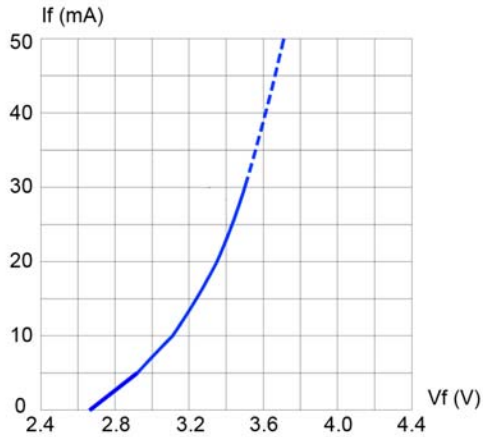


Fig. 1 Forward Current vs. Forward Voltage

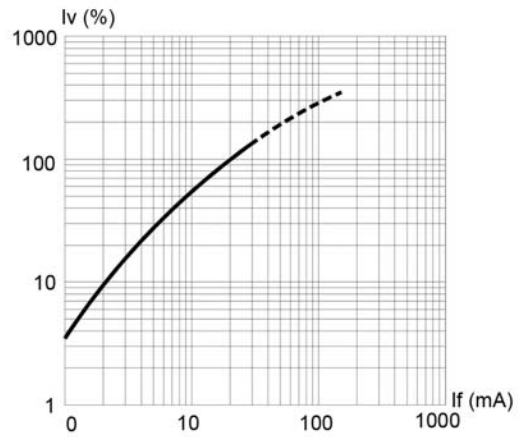


Fig. 2 Relative Luminous Intensity vs. Forward Current

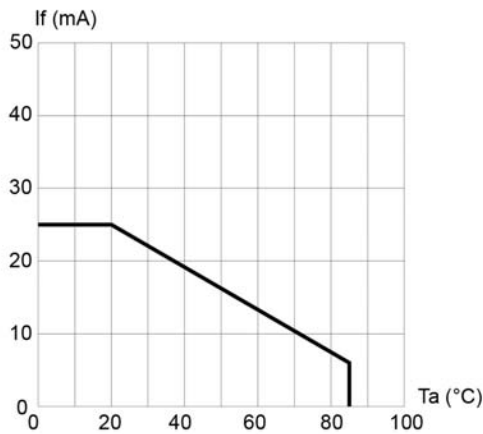


Fig. 3 Forward Current vs. Temperature

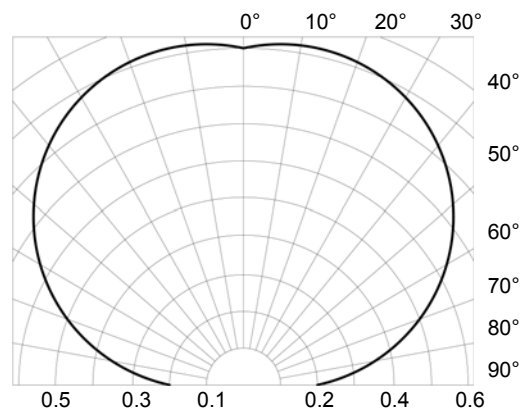


Fig. 4 Directivity Radiation Diagram

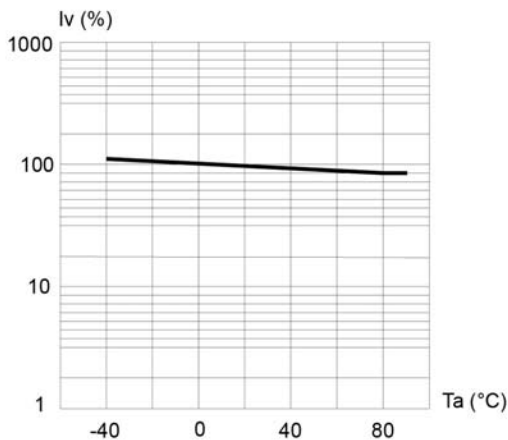


Fig. 5 Relative Luminous Intensity vs. Ambient Temperature

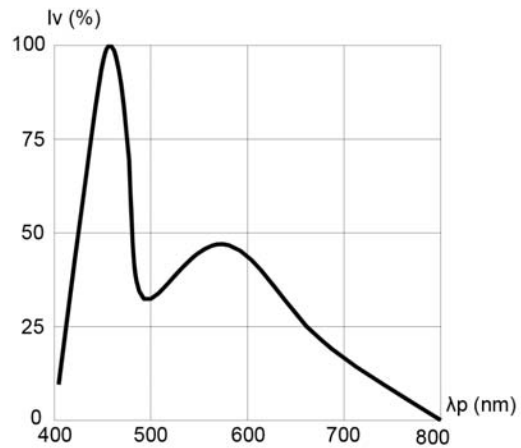


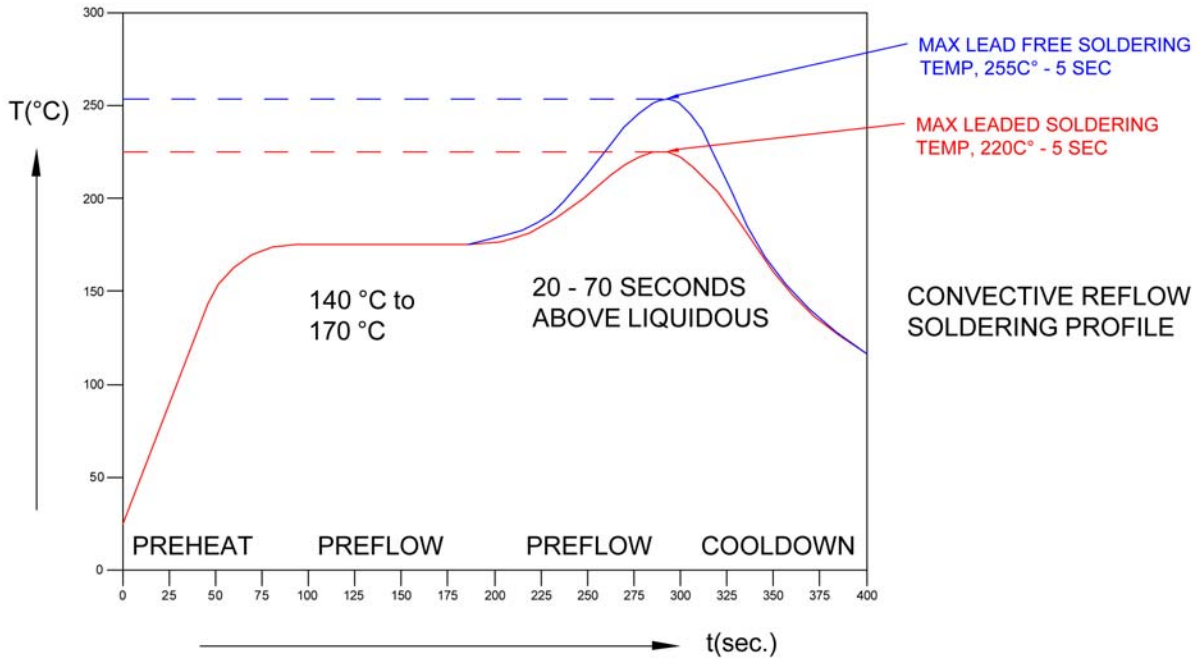
Fig. 6 Relative Luminous Intensity vs. Wavelength

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SURFACE MOUNT LED WHITE, 1206 PACKAGE

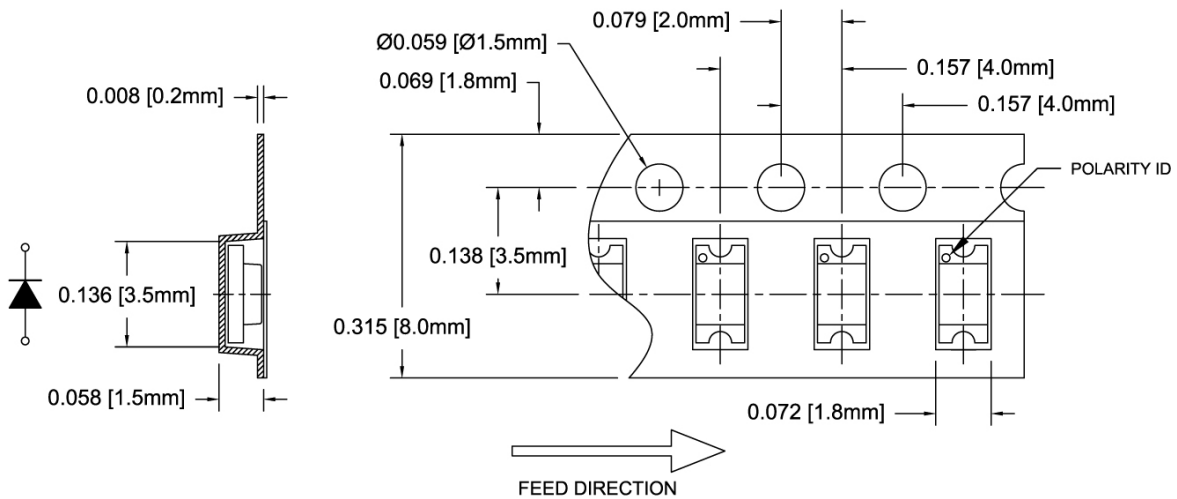


Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 3000 pcs/Reel



Outline Drawings Notes:

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

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SURFACE MOUNT LED WHITE, 1206 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



| | |
|-----------|--------------|
| 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.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.