## PLCC2 SMD Top View Package LED SMTL2-AC, AMBER



## SMTL2-AC

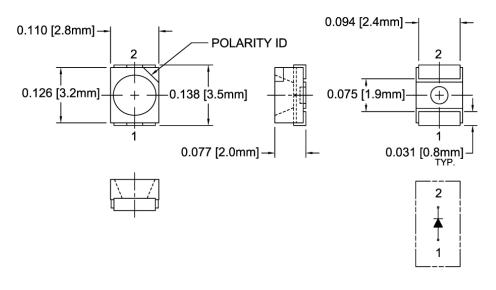
- **Industry Standard PLCC2 Footprint**
- Low Profile Package
- **High Luminous Intensity**
- Wide Viewing Angle
- **High Power Efficiency**

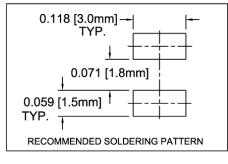


Bivar SMTL2 LED is offered in an industry standard PLCC2 package with high luminous intensity and wide viewing angles. The miniature package is ideal for small scale applications such as illumination, general indication, and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment. The robust package is ideal for harsh working environments and can be used in clusters for high luminous applications. Wide variety of color and intensity combinations are available to meet any illumination needs. Bivar SMTL2 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Lumen Typ. mcd	Lens Color	Viewing Angle
SMTL2-AC	GaAsP	Amber	15	Water Clear	120°

## **Outline Dimensions**





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







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## **Absolute Maximum Ratings**

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

Power Dissipation	80 mW
Continuous Forward Current	25 mA
Peak Forward Current <sup>1</sup>	100 mA
Reverse Voltage	5 V
Derating Linear From 25°C	0.4 mA/°C
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +100°C
Lead Soldering Temperature ( 1.6 mm from body ) <sup>2</sup>	260°C
Electrostatic Discharge (HBM)	2000 V

### **Electrical Characteristics**

 $T_A = 25$ °C &  $I_F = 20$  mA unless otherwise noted

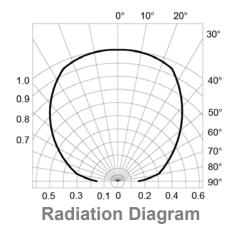
Emitting Color	• • • •		Recommend Forward Current (mA)	Reverse Current (µA) V <sub>R</sub> =5V	Dominant Wavelength (nm) <sup>2</sup>		Luminous Intensity (mcd) <sup>3</sup>		Viewing Angle 2 Θ ½ (deg)	
	TYP	MAX	TYP	MAX	MIN	TYP	MAX	MIN	TYP	TYP
Amber	2.0	2.6	20	100	600	607	614	10	15	120

Notes: 1. Tolerance of Forward Voltage: ±0.05V.

- 2. Tolerance of Dominant Wavelength: ±0.1nm.
- 3. Tolerance of Luminous Intensity: ±15%.

## **Directivity Radiation**

 $T_A = 25$ °C unless otherwise noted



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

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.

<sup>2.</sup> Solder time less than 5 seconds at temperature extreme.

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## Typical Electrical / Optical Characteristics Curves

 $T_A = 25$ °C unless otherwise noted

Relative Spectrum Emission  $I_{rel} = f(I)$ ,  $T_A = 25$ °C ,  $I_F = 20$  mA V(I) = Standard eye response curve

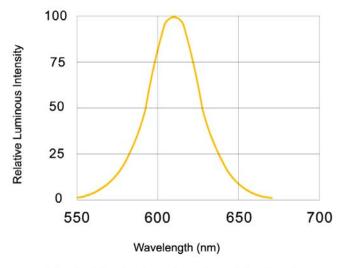


Fig.1 Relative Luminous Intensity vs. Wavelength

Forward Current  $I_F = f(V_F)$  $T_\Delta = 25$ °C

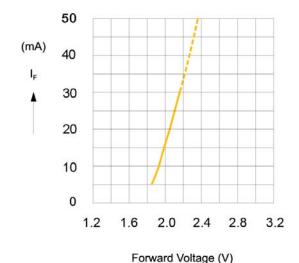


Fig.2 Forward Current vs. Forward Voltage

Relative Luminous Intensity  $I_v/I_v$  (20 mA) = f ( $I_F$ )  $T_A = 25$ °C

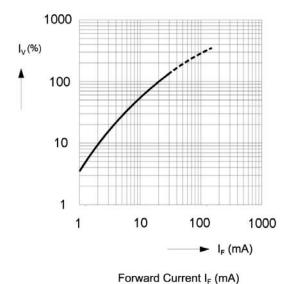
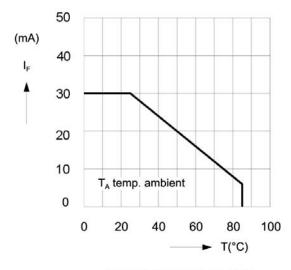


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current



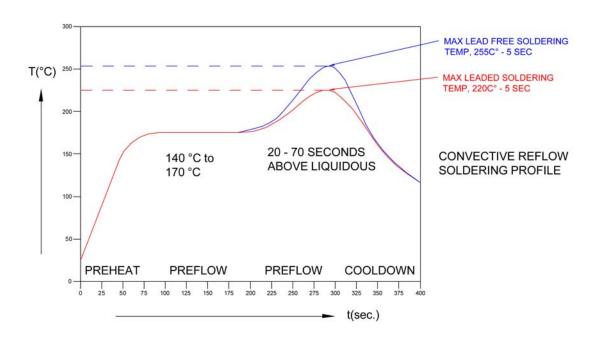
Ambient Temperature T<sub>A</sub> (°C)

Fig.4 Forward Current vs. Ambient Temperature

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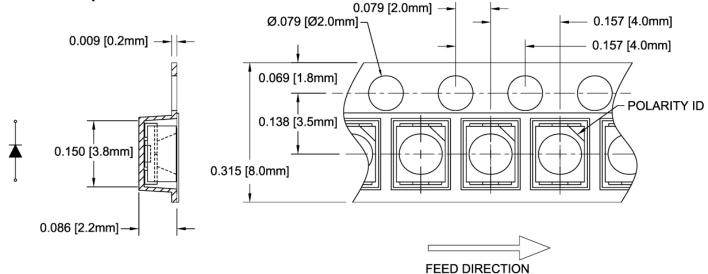


## **Recommended Soldering Conditions**



## Tape and Reel Dimensions

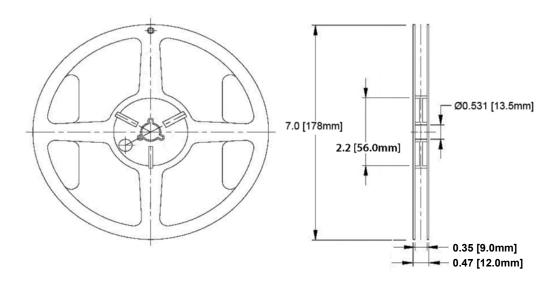
Note: 2000 pcs/Reel



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

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

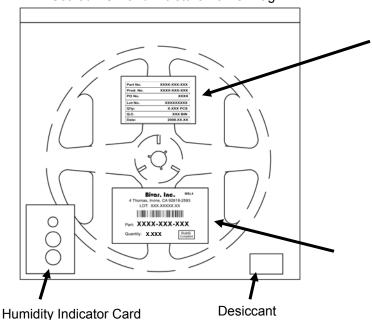
- 1. All dimensions are in inches [millimeters].
- 2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"

X.X ± 0.1"

## **Packaging and Labeling Plan**

Note: 1 Reel / Bag

### Sealed ESD and Moisture Barrier Bag



Part No.	XXXX-XXX-XXX		
Prod. No.	XXXX-XXX-XXX		
PO No.	XXX		
Lot No.	XXXXXXXX		
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.XXXXXXXX



Part: XXXX-XXX

Quantity: X,XXX

RoHS Compliant

Bivar Standard Packaging Label

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APHK1608VGCA APT2012QGW CLX6D-FKB-CN1R1H1BB7D3D3 LTST-C250KGKT LTW-020ZDCG LTW-21TS5 LTW-220DS5

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SML-LXL1209SYC/ATR EASV3020YGA0 EAST16086YA5