PLCC2 SMD Top View Package LED SMP2-SOC, SUPER ORANGE



SMP2-SOC

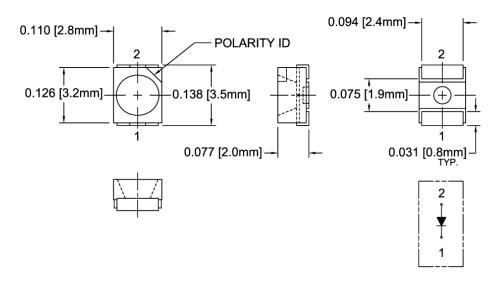
- **Industry Standard PLCC2 Footprint**
- Low Profile Package
- **High Luminous Intensity**
- Wide Viewing Angle
- **High Power Efficiency**

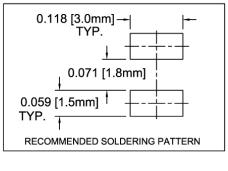


Bivar SMP2 LED is offered in an industry standard PLCC2 package with high luminous intensity and wide viewing angles. The miniature package is ideal for small scale applications such as illumination, general indication, and backlighting. Low power consumption and excellent long life reliability are suitable 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 SMP2 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
SMP2-SOC	AlGalnP	Super Orange	800	Water Clear	120°

Outline Dimensions





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







CAUTION: LOOKING DIRECTLY AT LED WITHOUT SHIELDED EYES MAY CAUSE DAMAGE TO RETINA.

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Absolute Maximum Ratings

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

Power Dissipation	72 mW
Continuous Forward Current	30 mA
Peak Forward Current ¹	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) ²	260°C
Electrostatic Discharge (HBM)	2000 V

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

Electrical Characteristics

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

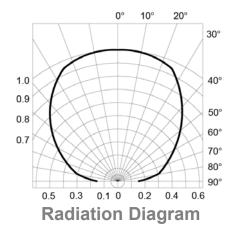
Emitting Color		ward ge (V) ¹	Recommend Forward Current (mA)	Reverse Current (μA) V _R =5V)omina elength		Lumi Intensity	nous y (mcd) ³	Viewing Angle 2 Θ ½ (deg)
	TYP	MAX	TYP	MAX	MIN	TYP	MAX	MIN	TYP	TYP
Super Orange	1.9	2.4	20	100	598	605	610	550	800	120

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

^{2.} 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

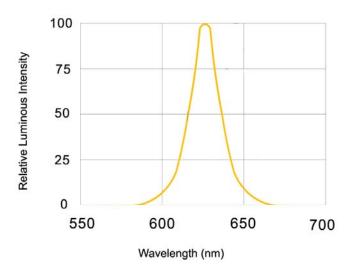


Fig.1 Relative Luminous Intensity vs. Wavelength

Forward Current $I_F = f(V_F)$ $T_A = 25$ °C

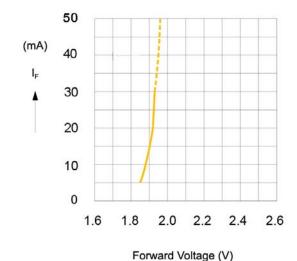


Fig.2 Forward Current vs. Forward Voltage

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

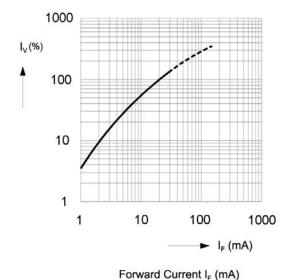
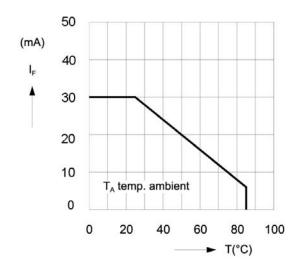


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current



Ambient Temperature T_A (°C)

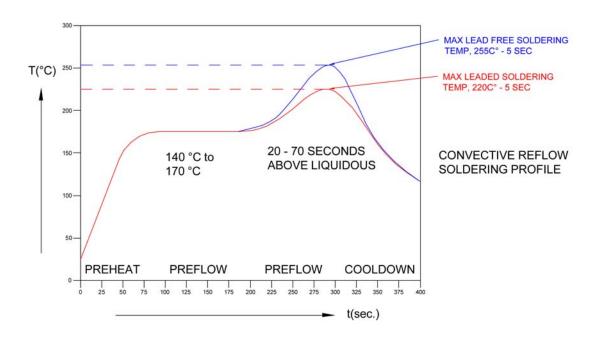
Fig.4 Forward Current vs. Ambient Temperature

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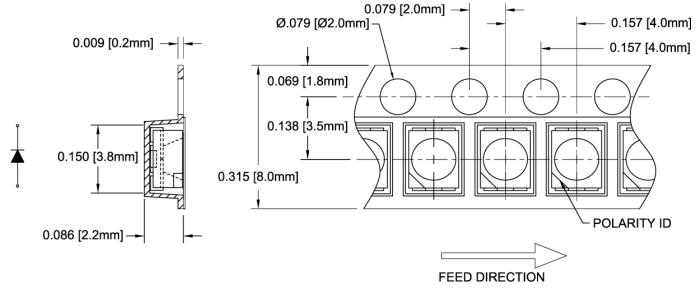


Recommended Soldering Conditions



Tape and Reel Dimensions

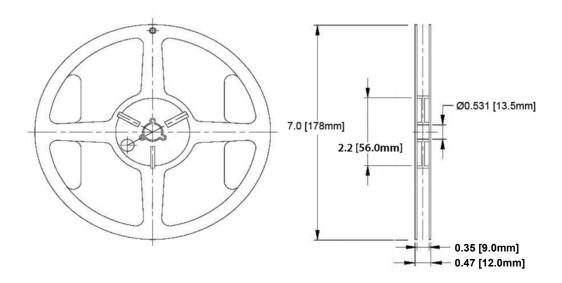
Note: 2000 pcs/Reel



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

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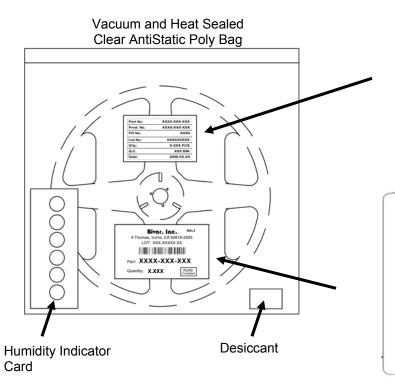
Outline Drawings Notes:

- 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



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