PLCC2 SMD Top View Package LED
SMTL2-SPGC, SUPER PURE GREEN

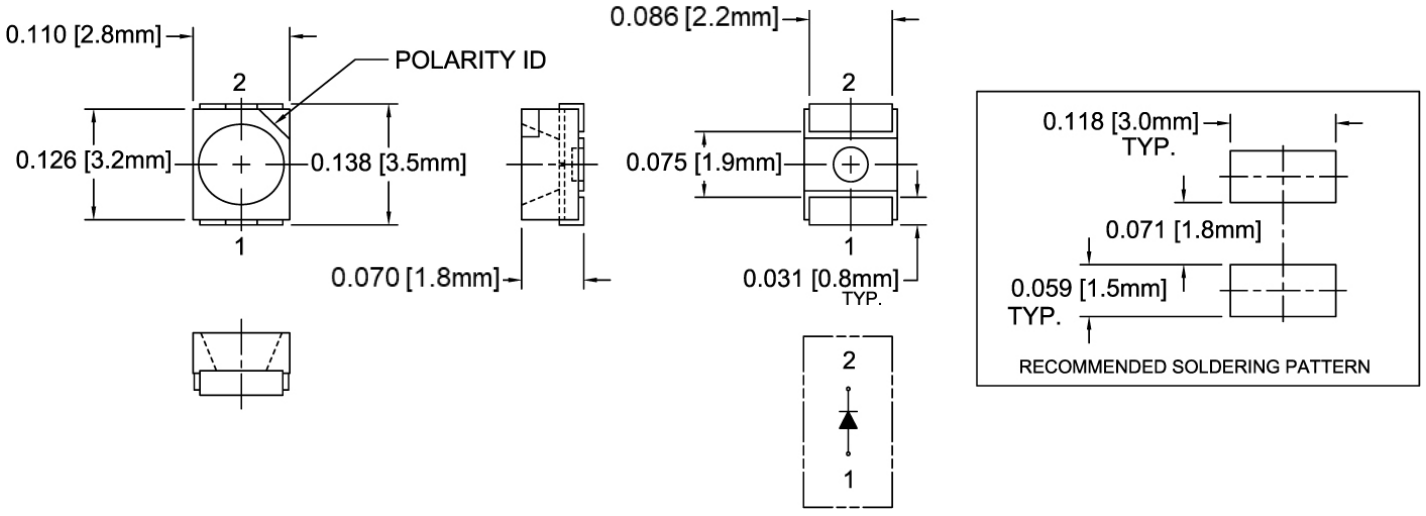
SMTL2-SPGC

- **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	Luminous Intensity Typ. mcd	Lens Color	Viewing Angle
SMTL2-SPGC	GaN	Super Pure Green	1650	Water Clear	120°

Outline Dimensions



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

ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

Moisture Sensitivity Levels 4

Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	100 mW
Continuous Forward Current	25 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 ~ +85°C
Lead Soldering Temperature (1.6 mm from body) [2]	260°C

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.
2. Solder time less than 5 seconds at temperature extreme.
Handling: Reflow soldering must not be performed more than twice. Hand soldering must not be performed more than once.
Sensitive to static electricity or surge voltage. ESD can damage the die and impair reliability.

Electrical Characteristics

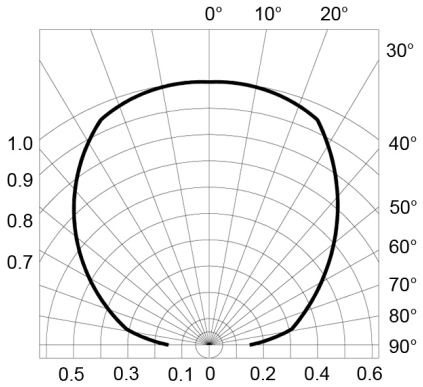
T_A = 25°C & I_F = 20 mA unless otherwise noted

Emitting Color	Forward Voltage (V)[1]			Recommend Forward Current (mA)	Reverse Current (μA) V_R=5V	Dominant Wavelength (nm)[2]			Luminous Intensity (mcd)[3]			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
Super Pure Green	2.7	3.0	3.3	20	10	516	521	527	1450	1650	1850	120

Notes: 1. Tolerance of Forward Voltage : ±0.05V.
2. Tolerance of Dominant Wavelength : -1nm of MIN & +1nm of MAX..
3. Tolerance of Luminous Intensity : ±15%.

Directivity Radiation

T_A = 25°C unless otherwise noted



Radiation Diagram

Typical Electrical / Optical Characteristics Curves

T_A = 25°C unless otherwise noted

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

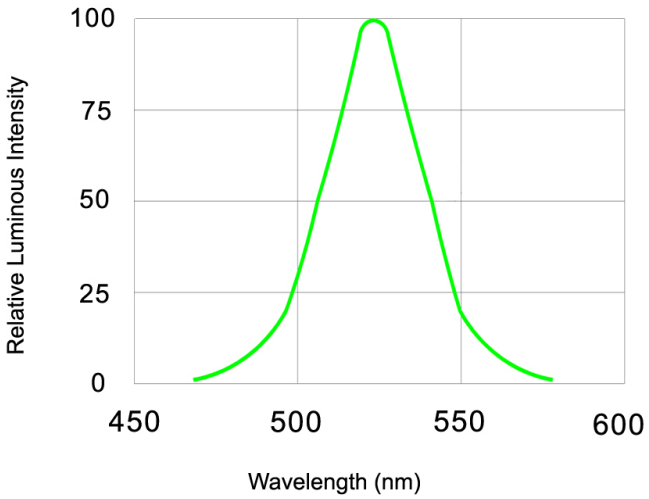


Fig.1 Relative Luminous Intensity vs. Wavelength

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

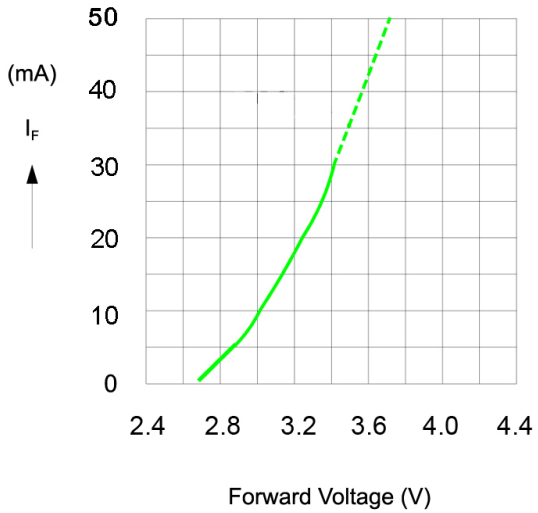


Fig.2 Forward Current vs. Forward Voltage

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

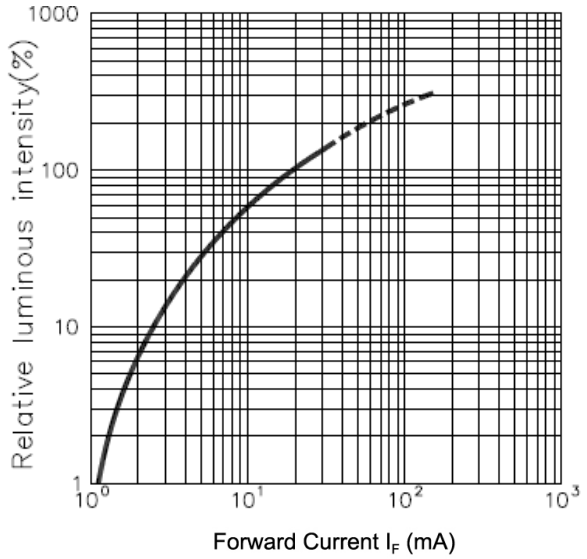


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

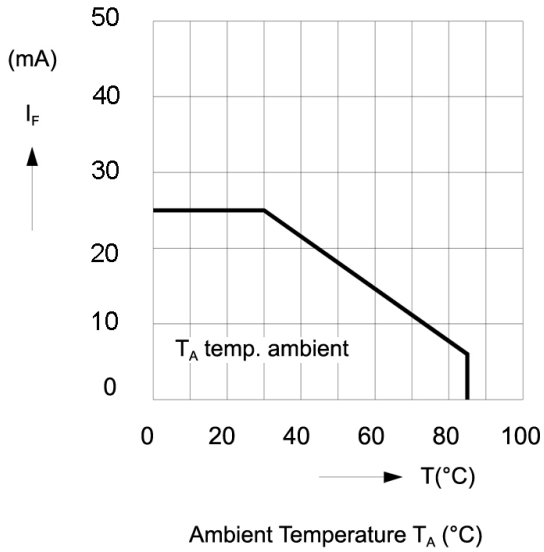
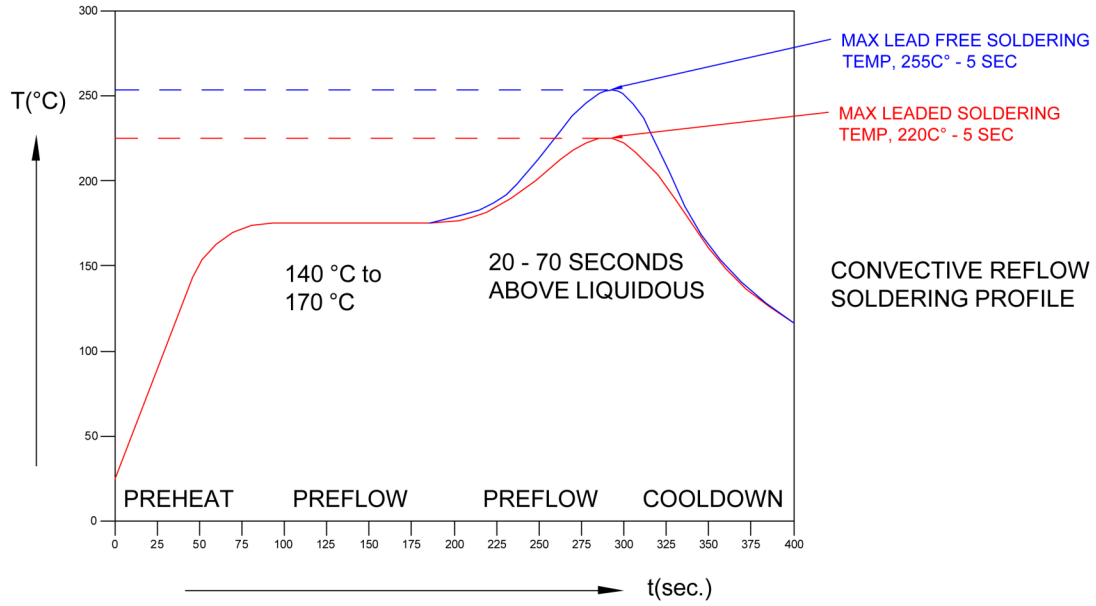


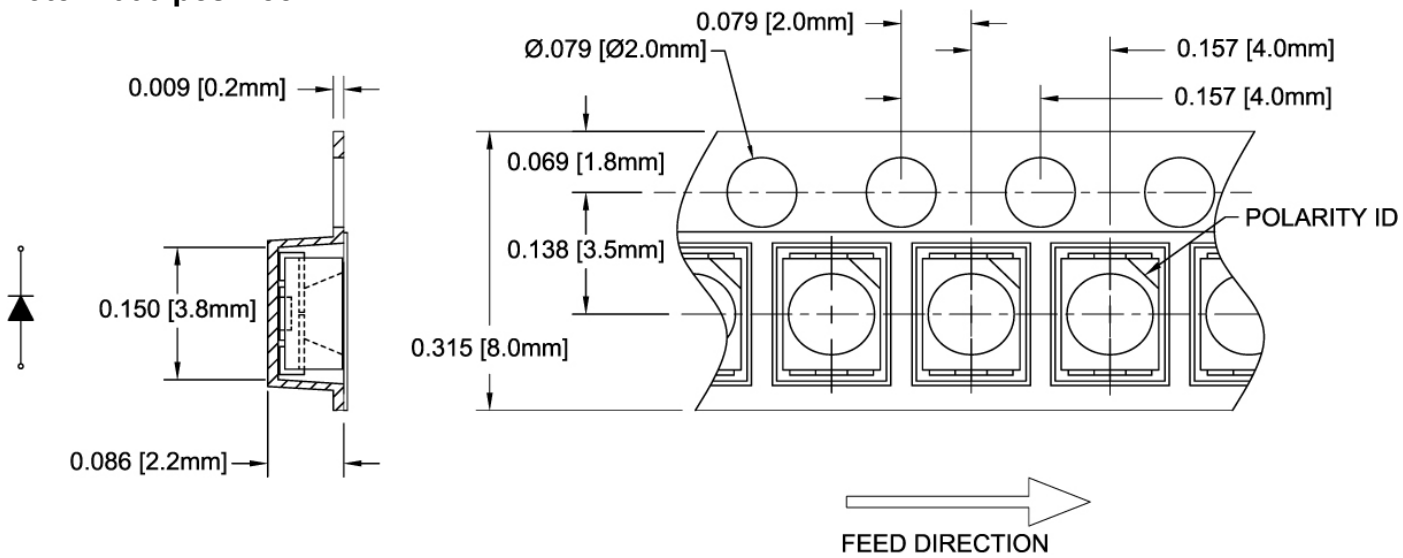
Fig.4 Forward Current vs. Ambient Temperature

Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 2000 pcs/Reel



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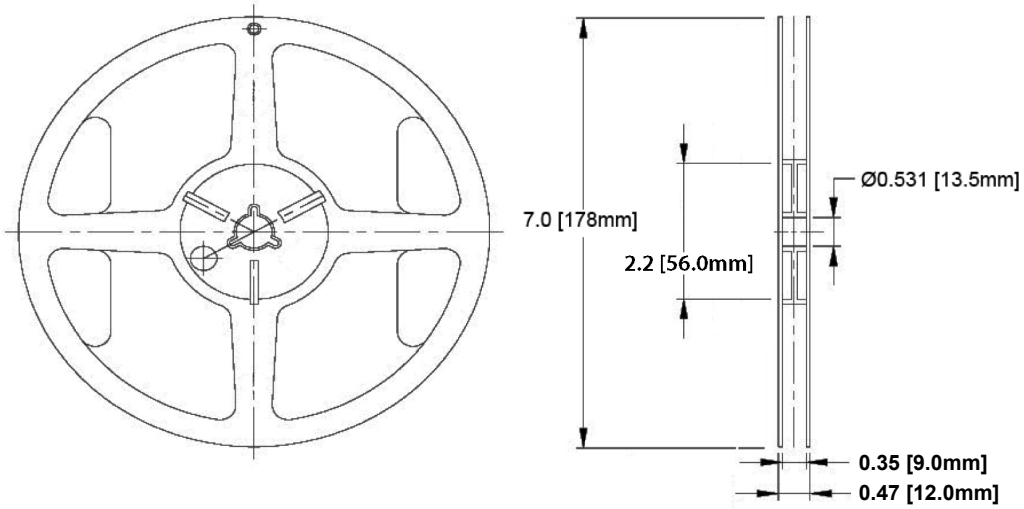

Outline Drawings Notes:
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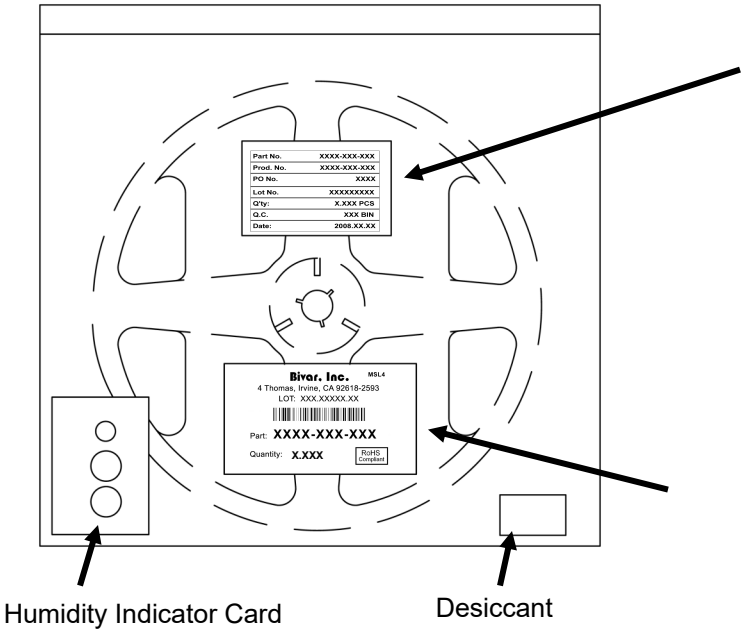
   X.X ± 0.1"

Packaging and Labeling Plan

Note: 1 Reel / Bag

Sealed ESD and Moisture Barrier Bag



Humidity Indicator Card

Desiccant

Part No.	**XXXX-XXX-XXX**
Prod. No.	**XXXX-XXX-XXX**
PO No.	**XXXX**
Lot No.	**XXXXXXXXX**
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.XXXXX.XX

Part: **XXXX-XXX-XXX**

Quantity: **X.XXX** RoHS Compliant

Bivar Standard Packaging Label