

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



Part Number	Material	Emitted Color	Luminous Intensity Typ. mcd	Lens Color	Viewing Angle
SMTL2-SBWC	GaN	Super Blue	360	Water Clear	120°

0.110 [2.8mm]

0.126 [3.2mm]

0.138 [3.5mm]

0.070 [1.8mm]

0.086 [2.2mm]

0.075 [1.9mm]

0.031 [0.8mm] TYP.

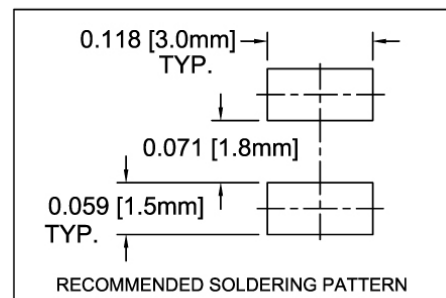
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1

POLARITY ID

2

1



Outline Drawings Notes:

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



PLCC2 SMD Top View Package LED SMTL2-SBWC, SUPER BLUE



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 2Θ ½ (deg)
	MIN	TYP	MAX	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
Super Blue	2.8	3.1	3.5	20	10	463	468	474	225	360	550	120

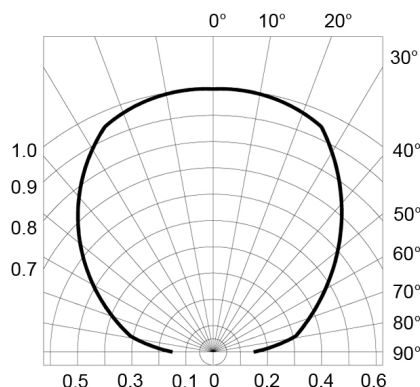
Notes: 1. Tolerance of Forward Voltage : ±0.05V.

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

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

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Typical Electrical / Optical Characteristics Curves

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

Relative Spectrum Emission $I_{\text{rel}} = f(\lambda)$, $T_A = 25^\circ\text{C}$, $I_F = 20\text{ mA}$

$V(\lambda)$ = Standard eye response curve

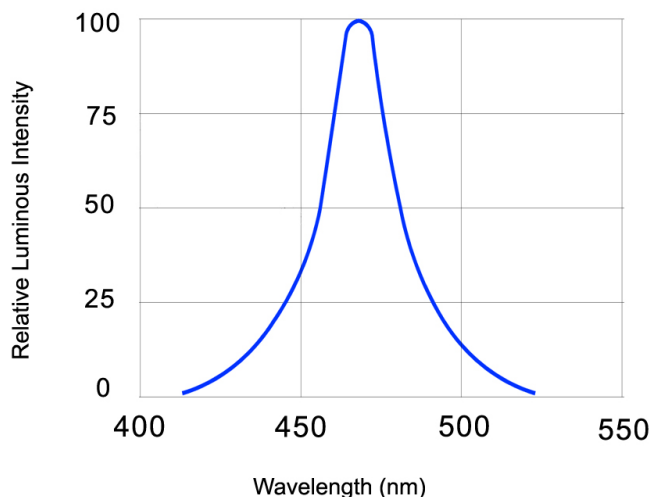


Fig.1 Relative Luminous Intensity vs. Wavelength

Forward Current $I_F = f(V_F)$

$T_A = 25^\circ\text{C}$

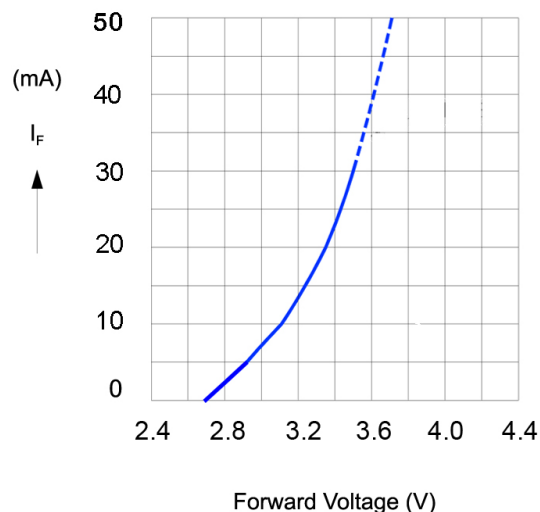


Fig.2 Forward Current vs. Forward Voltage

Relative Luminous Intensity $I_V/I_V(20\text{ mA}) = f(I_F)$

$T_A = 25^\circ\text{C}$

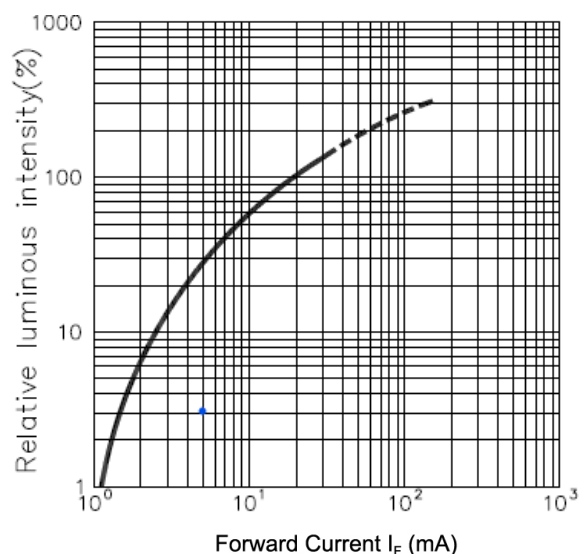


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

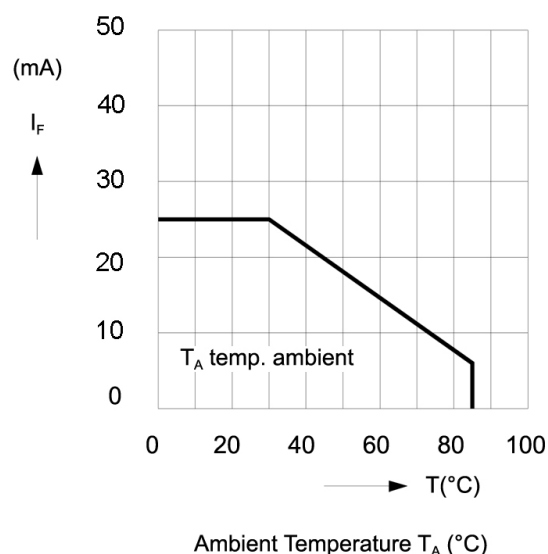


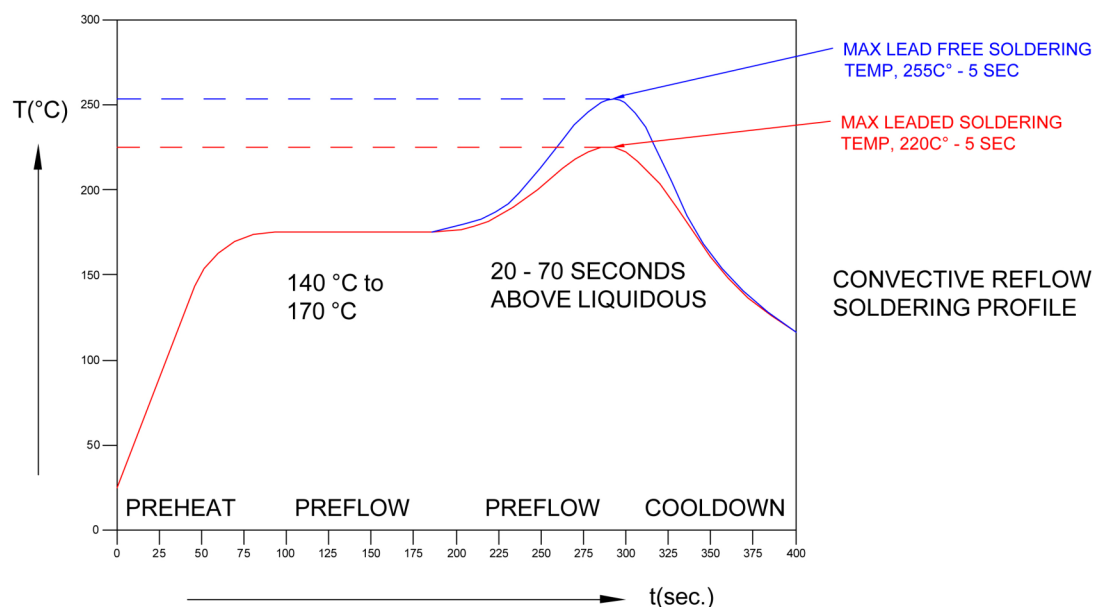
Fig.4 Forward Current vs. Ambient Temperature

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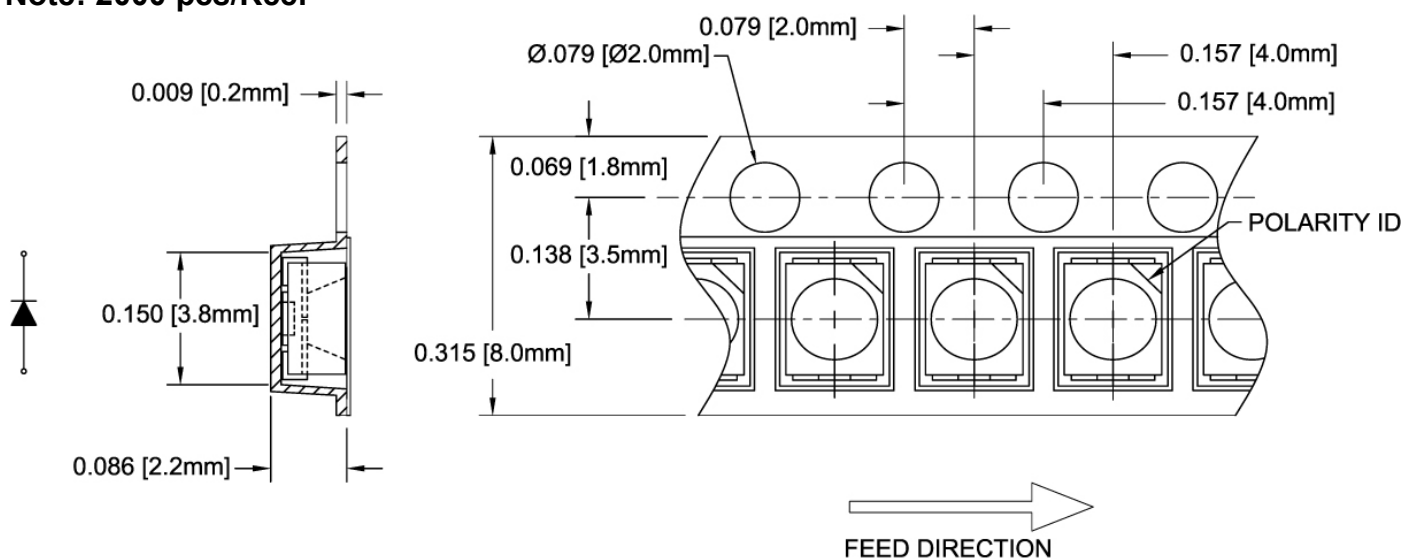


Recommended Soldering Conditions



Tape and Reel Dimensions

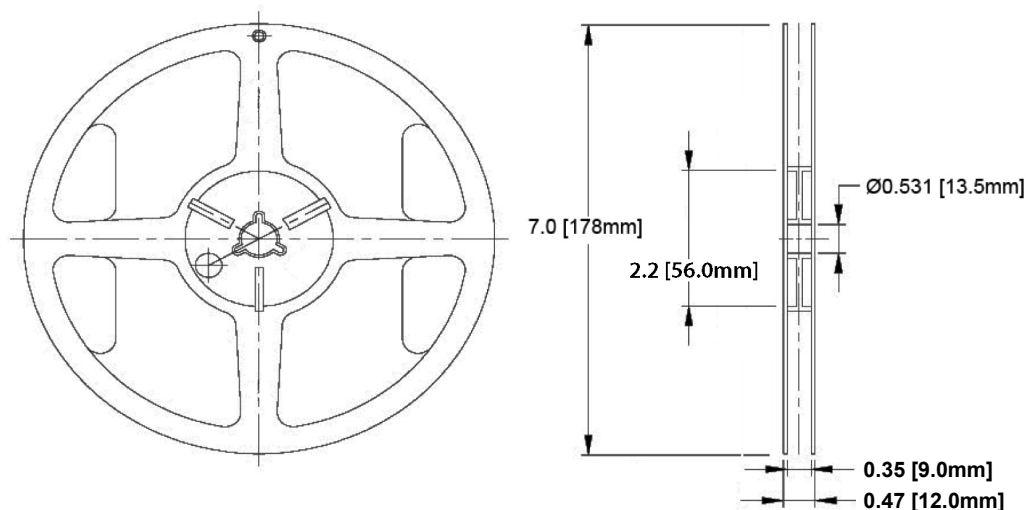
Note: 2000 pcs/Reel



Outline Drawings Notes:
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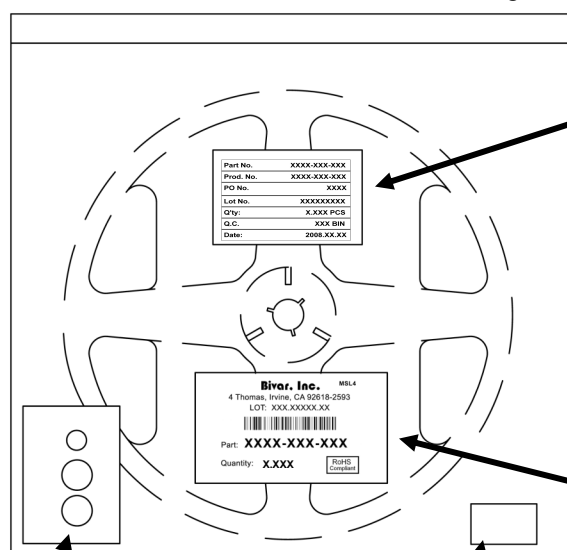
Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted: $X.XXX \pm 0.010"$
 $X.X \pm 0.1"$

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.	XXXXXXXXXX
Q'ty:	X.XXX PCS
Q.C.	XXX BIN
Date:	2008.XX.XX

Internal Quality Control Label



Bivar Standard Packaging Label

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