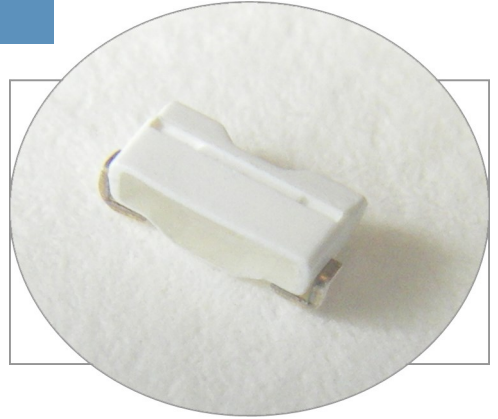


PLCC2 SMD Side View Package LED SMS1105BWC, BLUE

BIVAR

SMS1105BWC

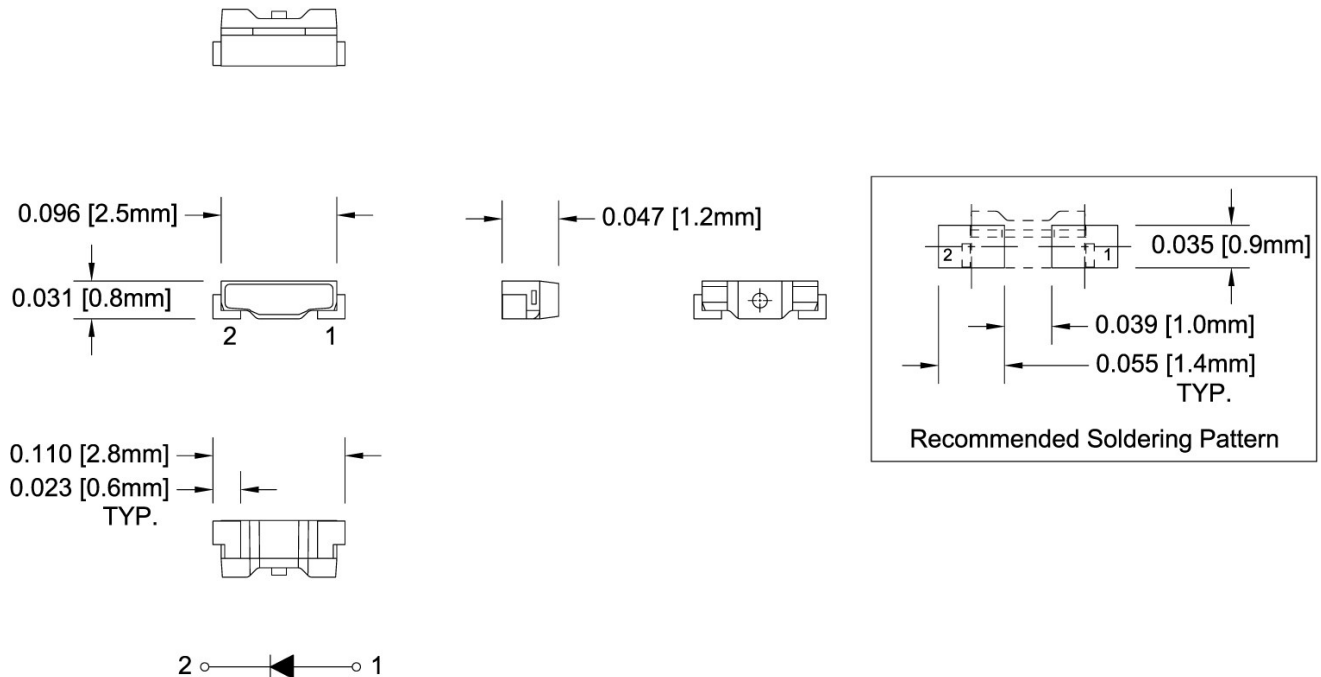
- ◆ Industry Standard Footprint
- ◆ Side Viewing, Low Profile Package
- ◆ High Luminous Intensity
- ◆ Wide Viewing Angle
- ◆ High Power Efficiency



Bivar SMS1105 LED is offered in a side viewing PLCC2 package exhibiting high luminous intensity and wide viewing angles. The miniature package is ideal for small scale applications such as displays, general indication, and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment where minimal maintenance is required. Wide variety of color and intensity combinations are available to meet any illumination needs. Bivar SMS1105 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Luminous Intensity (mcd) TYP.	Lens Color	Viewing Angle
SMS1105BWC	GaN	Blue	650	Water Clear	120°

Outline Dimensions



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

PLCC2 SMD Side View Package LED SMS1105BWC, BLUE



Absolute Maximum Ratings

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

Power Dissipation	68 mW
Continuous Forward Current	30 mA
Peak Forward Current ¹	100 mA
Electrostatic Discharge Classification (HBM)	2000 V
Reverse Voltage	5 V
Derating Linear From 25°C	0.4 mA/°C
Operating Temperature Range	-40 ~ +105°C
Storage Temperature Range	-40 ~ +105°C
Soldering Temperature	260°C

- Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.
2. Solder time less than 5 seconds at temperature extreme.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ & $I_F = 20$ mA unless otherwise noted

Emitting Color	Forward Voltage (V) ¹			Recommend Forward Current (mA)	Reverse Current (μA) $V_R=5\text{V}$	Dominant Wavelength (nm) ²		Luminous Intensity (mcd) ³		Viewing Angle $2\theta_{1/2}$ (deg)
	MIN	TYP	MAX	TYP	MAX	MIN	MAX	MIN	MAX	TYP
Blue	2.8	3.1	3.4	20	10	467	476	400	900	120

- Notes: 1. Tolerance of Forward Voltage : $\pm 0.05\text{V}$.
2. Tolerance of Dominant Wavelength : -1.0nm of MIN & $+1.0\text{nm}$ of MAX
3. Tolerance of Luminous Intensity : $\pm 15\%$.

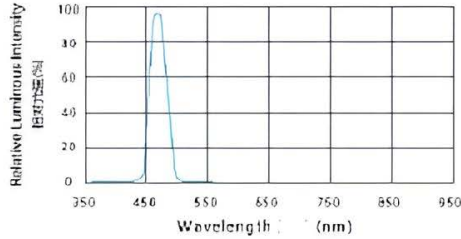
Bivar reserves the right to make changes at any time without notice.

PLCC2 SMD Side View Package LED SMS1105BWC, BLUE

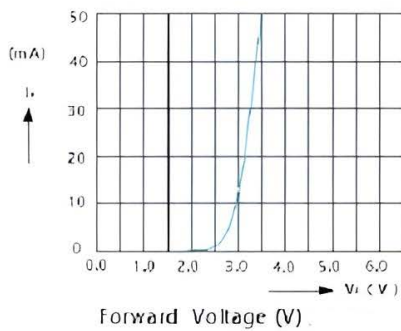


Typical Electrical / Optical Characteristics Curves

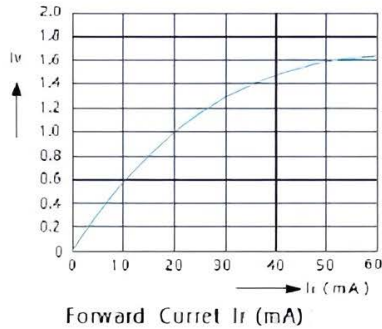
$T_A = 25^\circ\text{C}$ unless otherwise noted



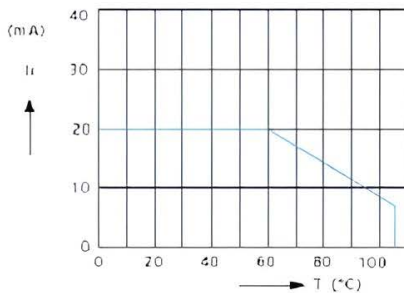
Forward Current $I_F = f(V_F)$
 $T_A = 25^\circ\text{C}$



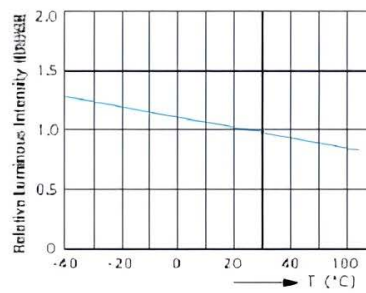
Relative Luminous Intensity
 $T_A = 25^\circ\text{C}$



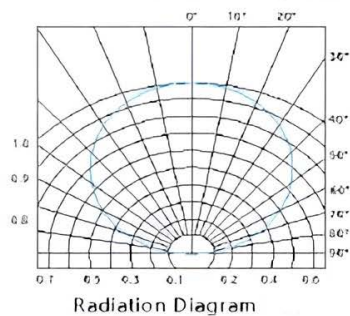
Ambient Temperature VS.
Allowable Forward Current



Ambient Temperature VS.
Relative Intensity



Radiation Characteristic $I_{\text{rel}} = f(\theta)$

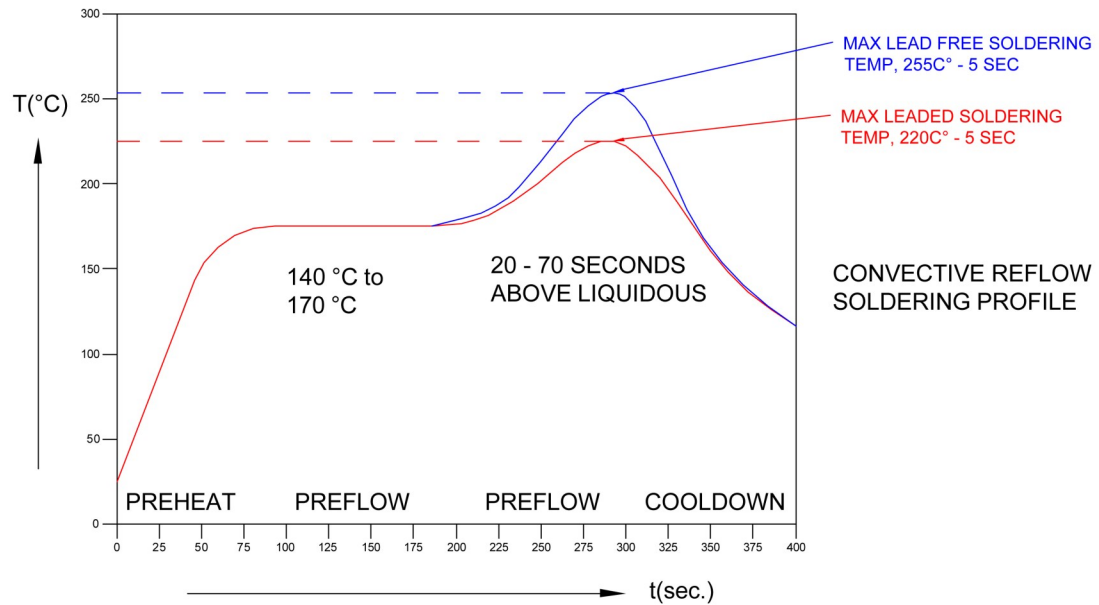


Bivar reserves the right to make changes at any time without notice.

PLCC2 SMD Side View Package LED SMS1105BWC, BLUE

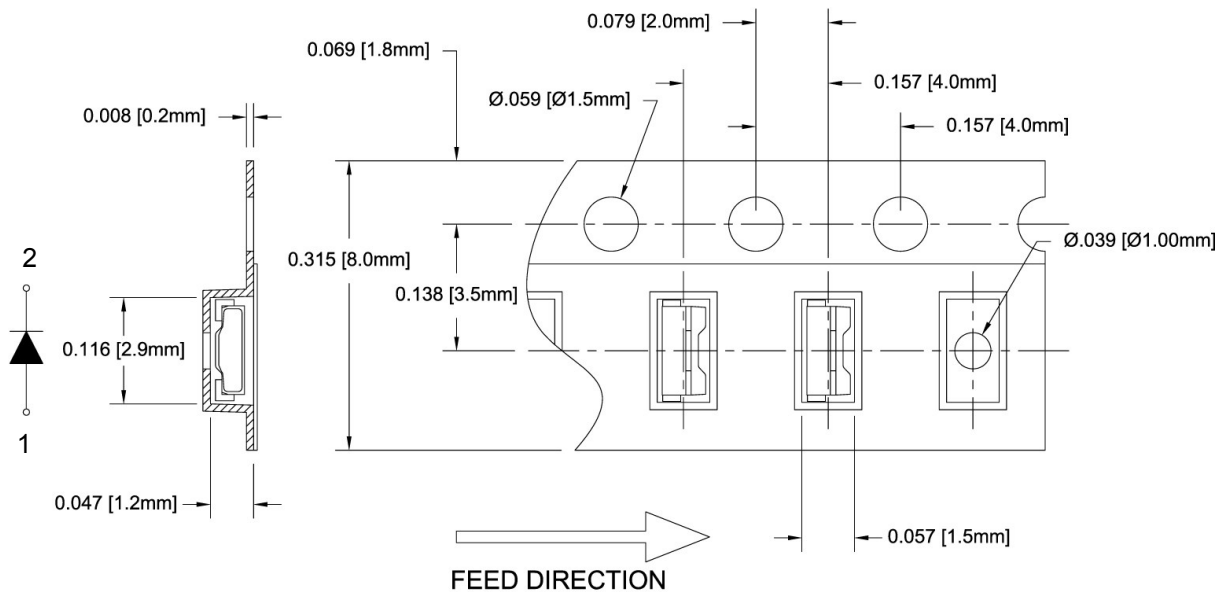


Recommended Soldering Conditions



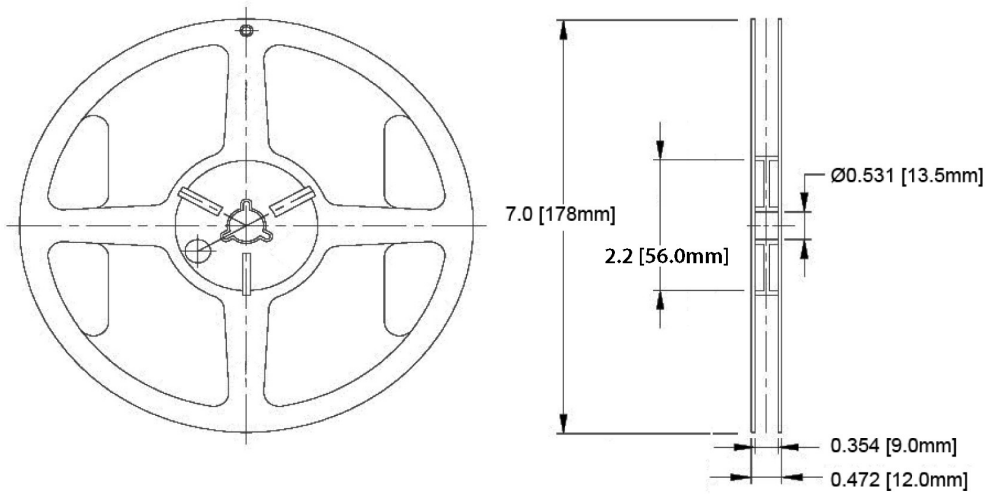
Tape and Reel Dimensions

Note: 4000 pcs/Reel



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PLCC2 SMD Side View Package LED SMS1105BWC, BLUE

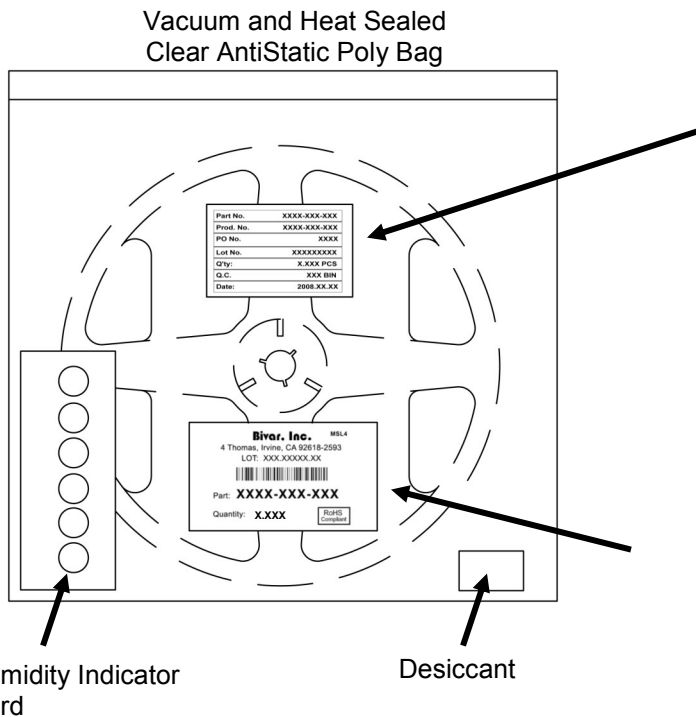


Outline Drawings Notes:

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.	XXXX
Lot No.	XXXXXXXXXX
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

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