

PLCC2 SMD Side View Package LED SMS1105PGC, PURE GREEN

BIVAR

SMS1105PGC

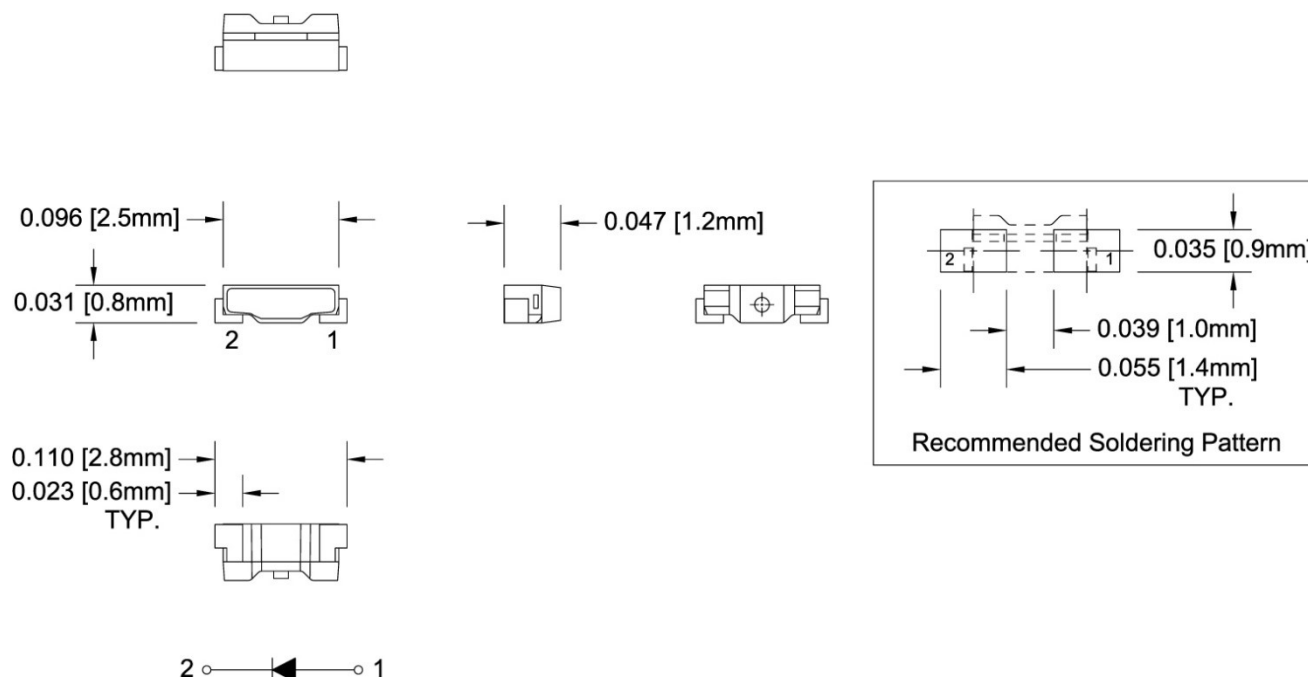
- ◆ Industry Standard Footprint
- ◆ Side Viewing, Low Profile Package
- ◆ High Luminous Intensity
- ◆ Wide Viewing Angle
- ◆ High Power Efficiency



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	Intensity Typ. mcd	Lens Color	Viewing Angle
SMS1105PGC	InGaN	Pure Green	2100	Water Clear	120°

Outline Dimensions



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

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Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	100 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	100 mA
Electrostatic Discharge (Class1)	2000 V
Reverse Voltage	5 V
Derating Linear From 25°C	0.4 mW/°C
Operating Temperature Range	-30 - +85°C
Storage Temperature Range	-40 - +90°C
Lead Soldering Temperature (3 mm from the base of the epoxy bulb) ²	250°C

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec. 2. Solder time less than 4 seconds at temperature extreme.

Electrical / Optical Characteristics

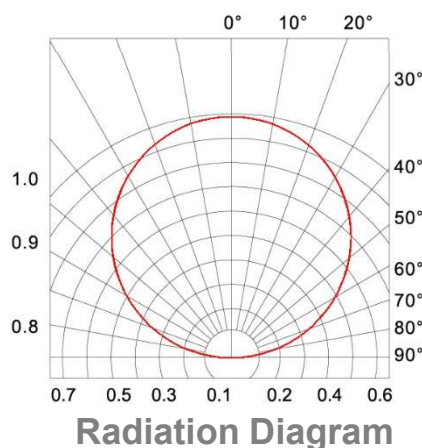
T_A = 25°C & I_F = 50 mA unless otherwise noted

Emitting Color	Forward Voltage (V) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _v (mcd) ³			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
Pure Green	2.8	/	3.4	/	20	/	10	520	/	529	1800	2100	2400	120

Notes: 1. Tolerance of forward voltage : ±0.5V. 2. Tolerance of dominant wavelength : ±1.0nm. 3. Tolerance of luminous intensity : ±15%

Directivity Radiation

T_A = 25°C unless otherwise noted



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Typical Electrical / Optical Characteristics Curves

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

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

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

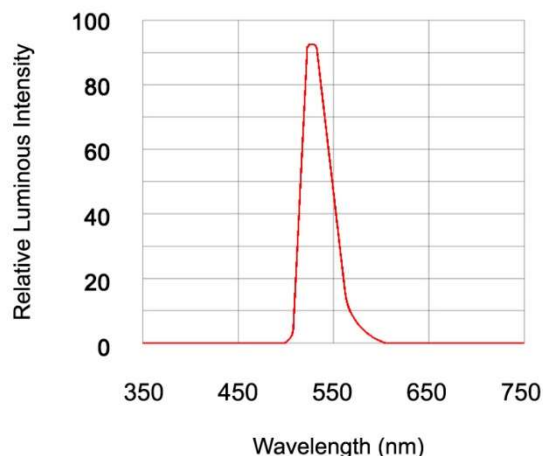


Fig.1 Relative Luminous Intensity vs. Wavelength

Forward Current $I_F = f(V_F)$

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

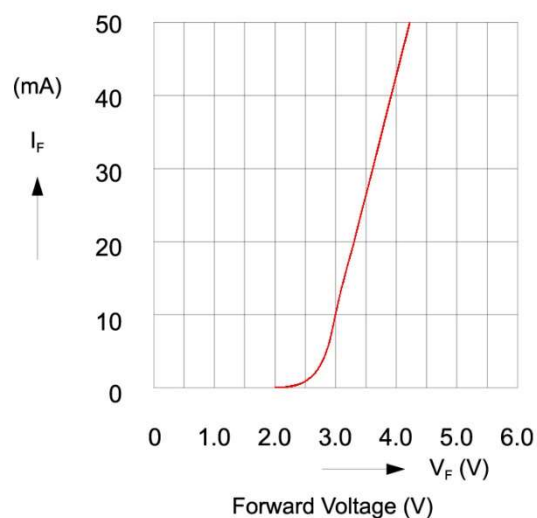


Fig.2 Forward Current vs. Forward Voltage

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

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

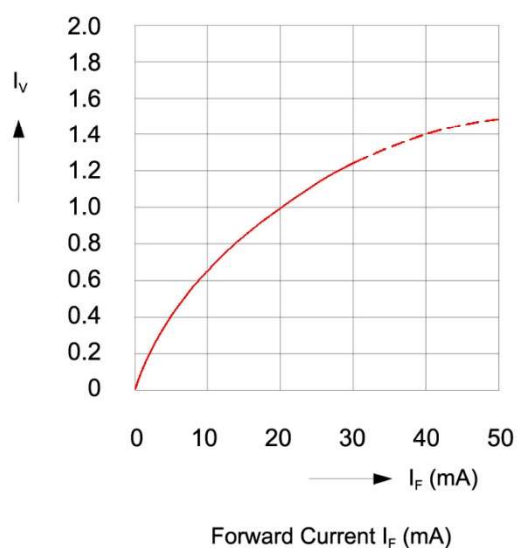


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

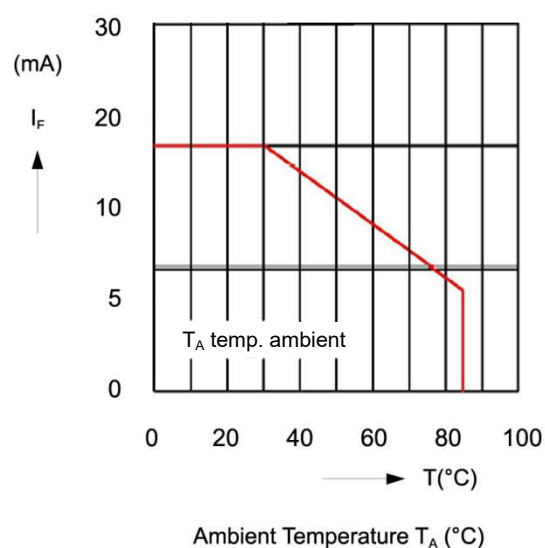


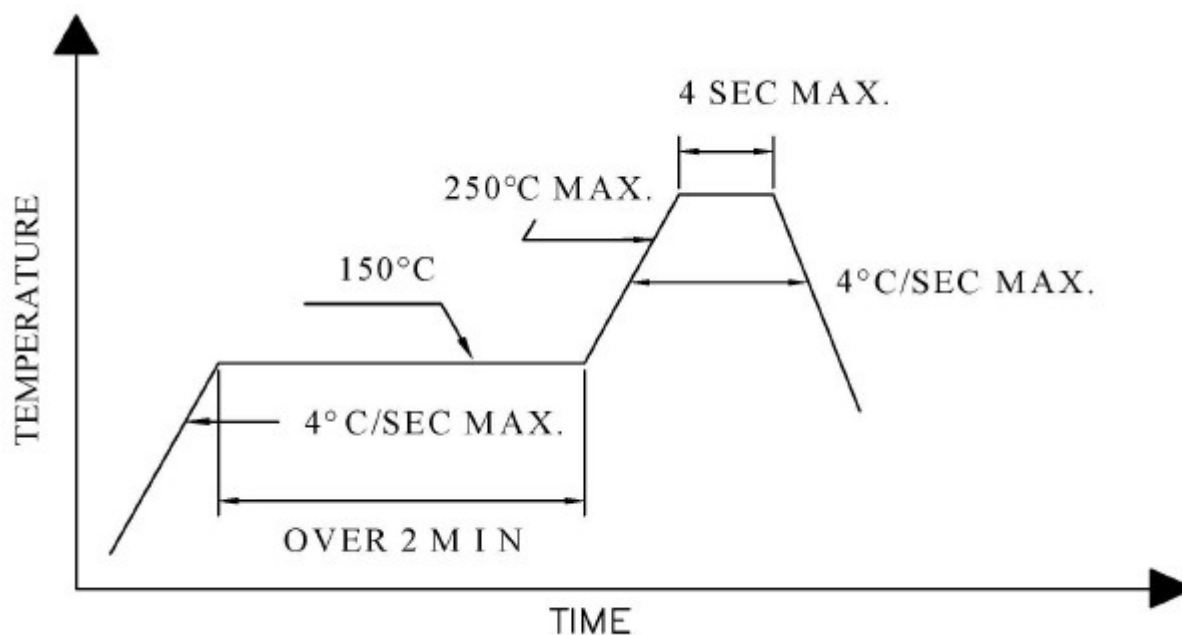
Fig.4 Forward Current vs. Ambient Temperature

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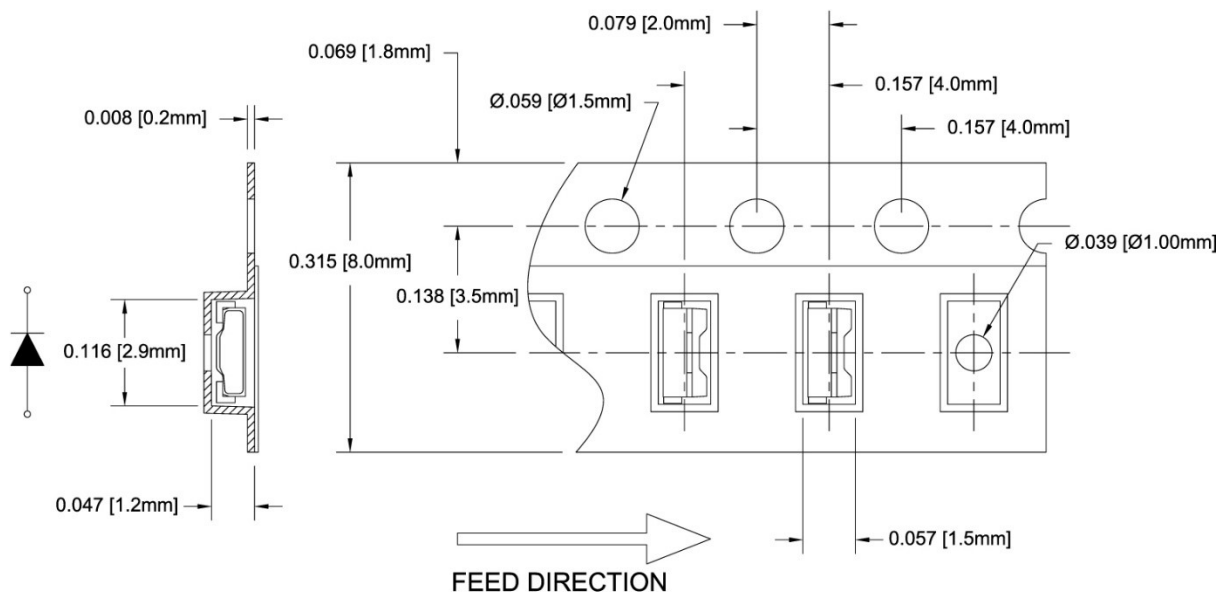
Recommended Soldering Conditions



Tape and Reel

Dimensions Note: 4000 pcs/

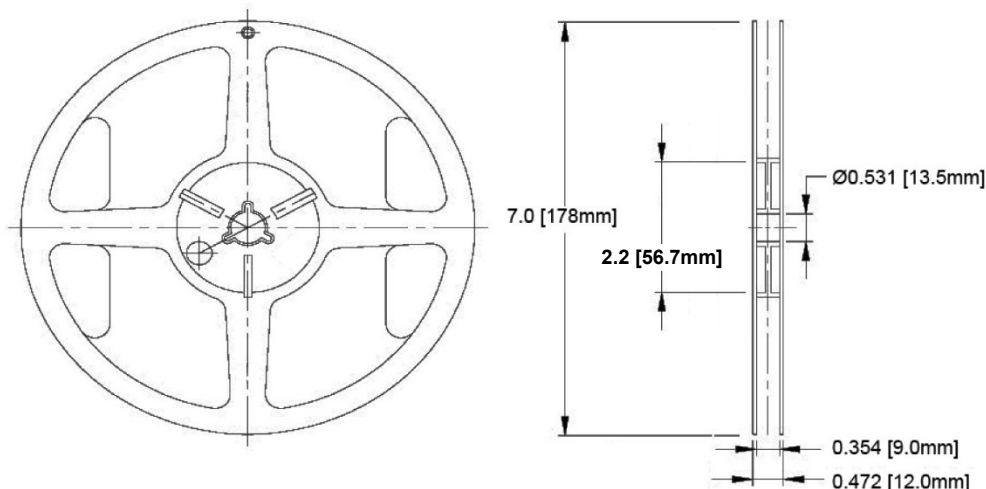
Reel



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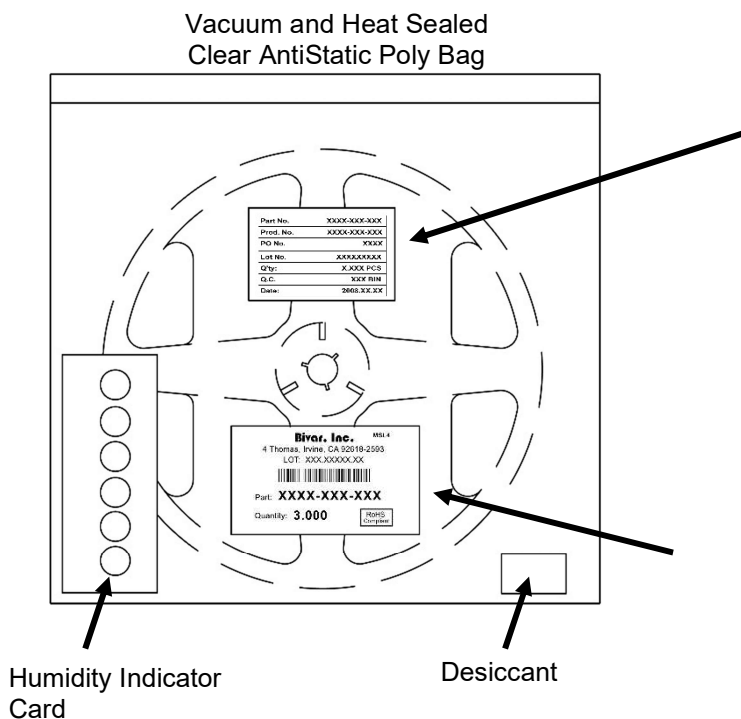


Outline Drawings Notes:

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



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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