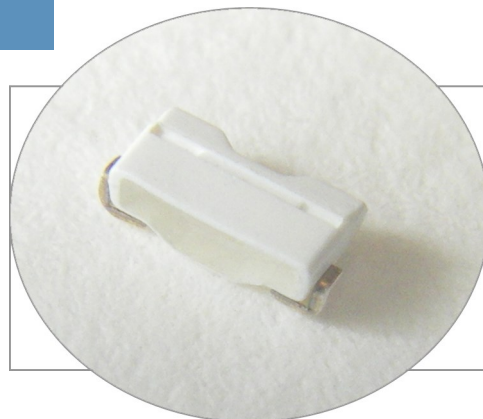


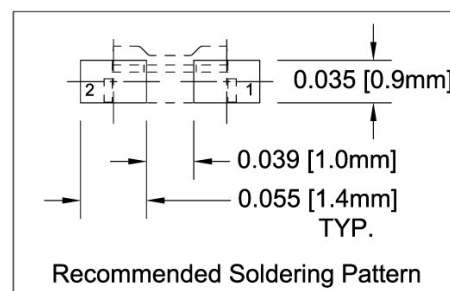


- ◆ **Industry Standard Footprint**
- ◆ **Side Viewing, Low Profile Package**
- ◆ **High Luminous Intensity**
- ◆ **Wide Viewing Angle**
- ◆ **High Power Efficiency**



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## Outline Dimensions



**Outline Drawings Notes:**

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



# PLCC2 SMD Side View Package LED SMS1105OC, ORANGE



## Absolute Maximum Ratings

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

|                                              |                               |
|----------------------------------------------|-------------------------------|
| Power Dissipation                            | 100 mW                        |
| Continuous Forward Current                   | 30 mA                         |
| Peak Forward Current <sup>1</sup>            | 100 mA                        |
| Electrostatic Discharge Classification (HBM) | 2000 V                        |
| Reverse Voltage                              | 5 V                           |
| Derating Linear From $25^\circ\text{C}$      | 0.4 mA/ $^\circ\text{C}$      |
| Operating Temperature Range                  | $-30 \sim +85^\circ\text{C}$  |
| Storage Temperature Range                    | $-40 \sim +100^\circ\text{C}$ |
| Soldering Temperature                        | $260^\circ\text{C}$           |

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

## Electrical Characteristics

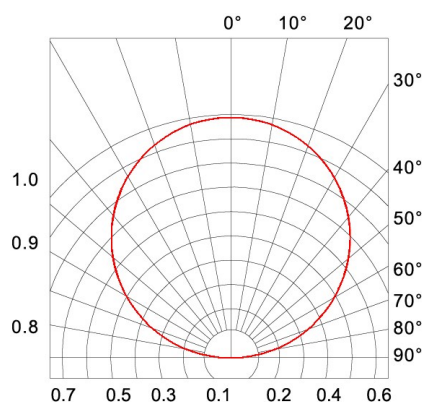
$T_A = 25^\circ\text{C}$  &  $I_F = 20$  mA unless otherwise noted

| Emitting Color | Forward Voltage (V) <sup>1</sup> |     |     | Recommend Forward Current (mA) | Reverse Current ( $\mu\text{A}$ )<br>$V_R = 5\text{V}$ | Dominant Wavelength (nm) <sup>2</sup> |     | Luminous Intensity (mcd) <sup>3</sup> |     | Viewing Angle<br>$2\theta_{1/2}$ (deg) |
|----------------|----------------------------------|-----|-----|--------------------------------|--------------------------------------------------------|---------------------------------------|-----|---------------------------------------|-----|----------------------------------------|
|                | MIN                              | TYP | MAX | TYP                            | MAX                                                    | MIN                                   | MAX | MIN                                   | MAX | TYP                                    |
| Orange         | 1.8                              | 2.2 | 2.6 | 20                             | 10                                                     | 600                                   | 612 | 400                                   | 800 | 120                                    |

Notes: 1. Tolerance of Forward Voltage :  $\pm 0.05\text{V}$ .  
2. Tolerance of Dominant Wavelength :  $\pm 0.1\text{nm}$ .  
3. Tolerance of Luminous Intensity :  $\pm 15\%$ .

## Directivity Radiation

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



Radiation Diagram

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

# PLCC2 SMD Side View Package LED SMS1105OC, ORANGE



## 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

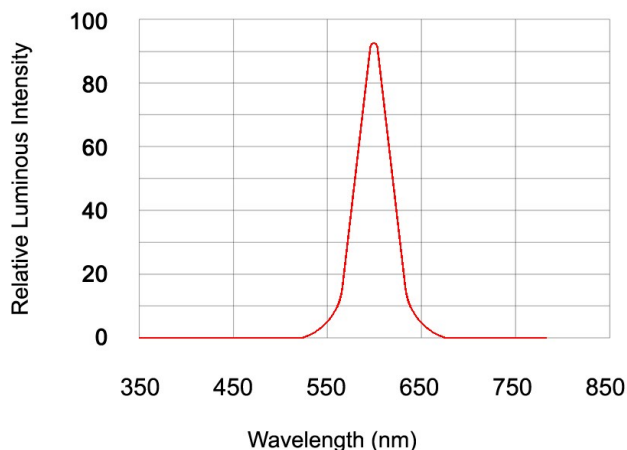


Fig.1 Relative Luminous Intensity vs. Wavelength

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

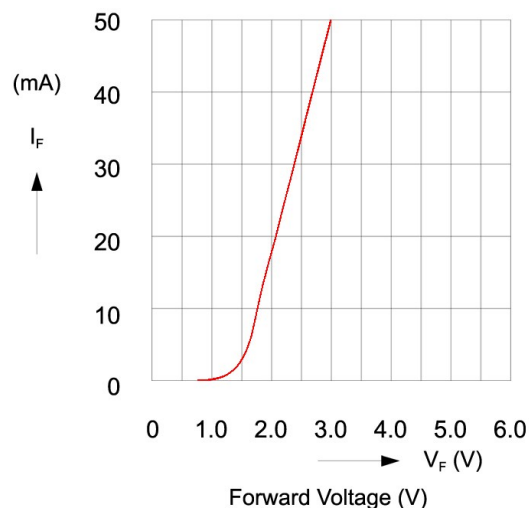


Fig.2 Forward Current vs. Forward Voltage

Relative Luminous Intensity  $I_V/I_V(20\text{mA}) = f(I_F)$   
 $T_A = 25^\circ\text{C}$

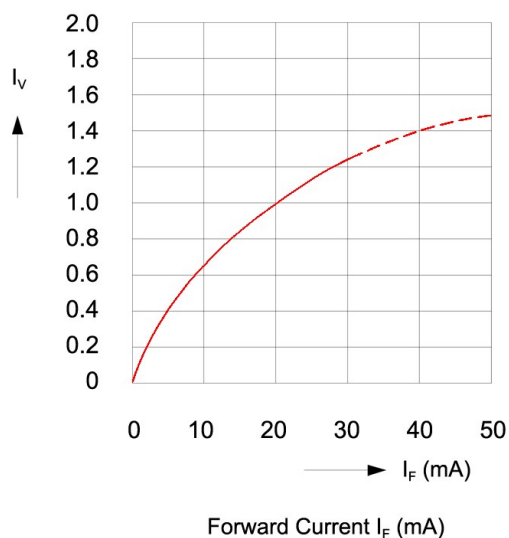


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

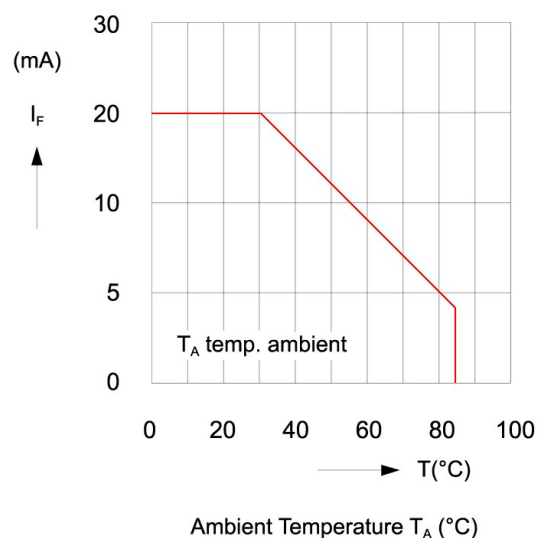


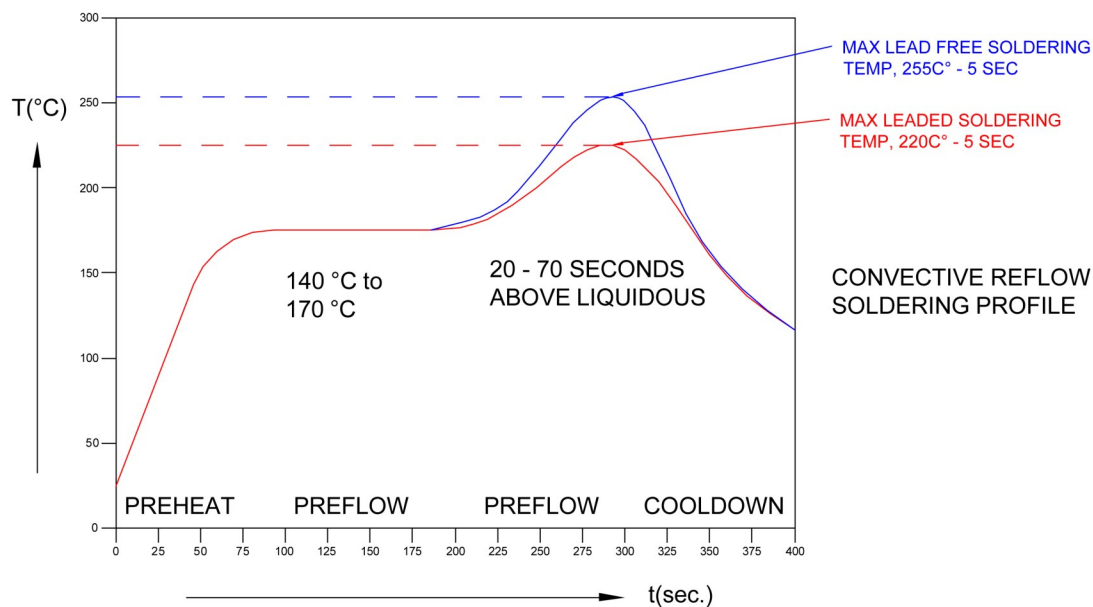
Fig.4 Forward Current vs. Ambient Temperature

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

# PLCC2 SMD Side View Package LED SMS1105OC, ORANGE

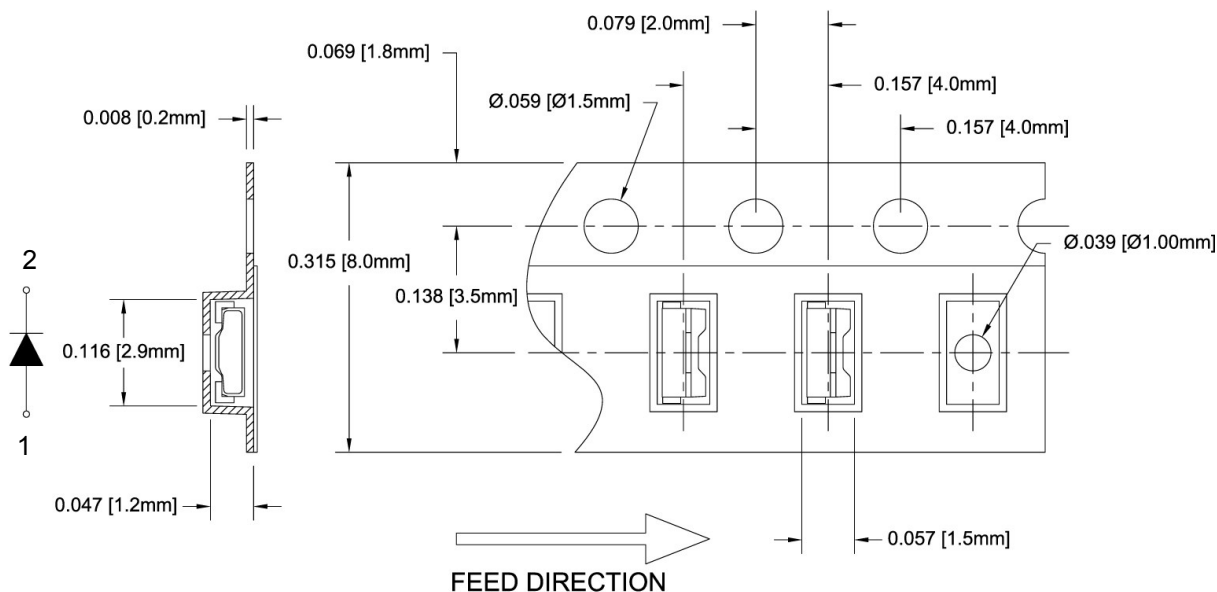


## Recommended Soldering Conditions



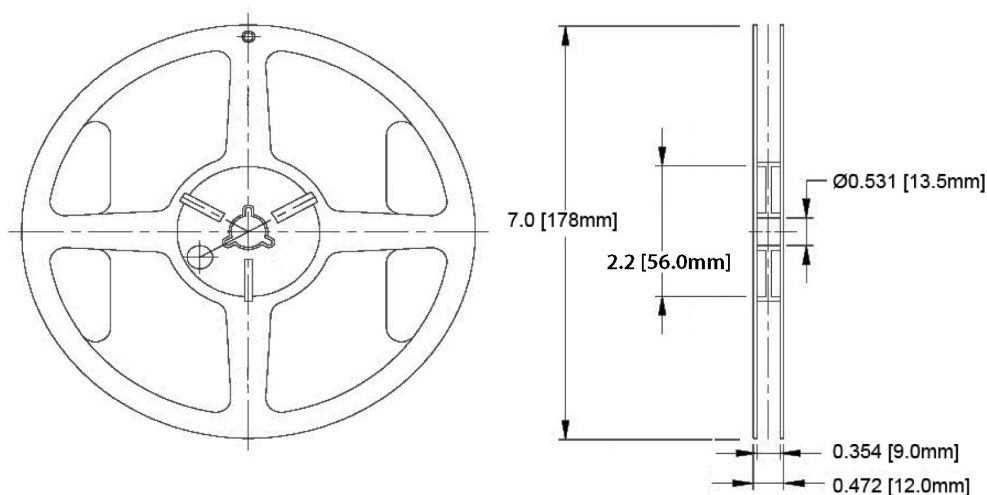
## Tape and Reel Dimensions

Note: 3000 pcs/Reel



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

# PLCC2 SMD Side View Package LED SMS1105OC, ORANGE

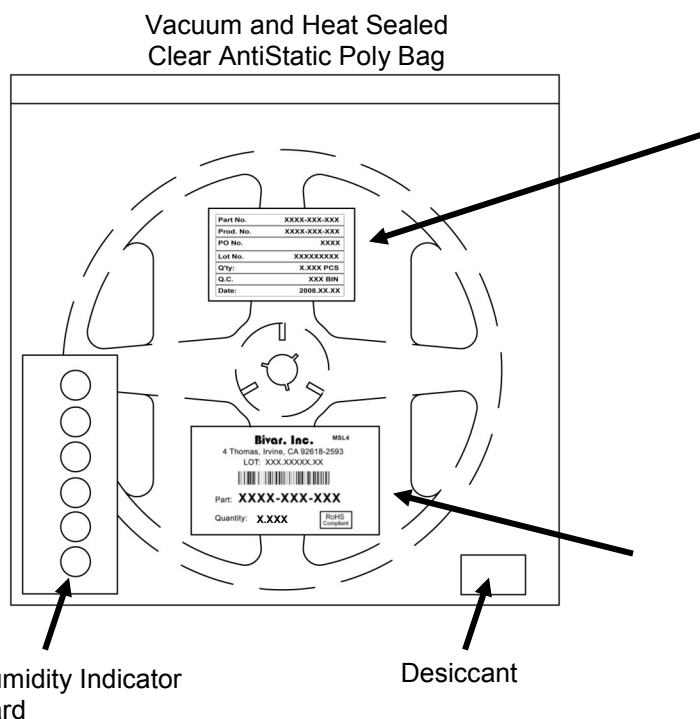


## Outline Drawings Notes:

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

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