

SMTL2-SUWD Datasheet



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	SMTL2-SUWD-DG
Manufacturer	Bivar Inc.
Manufacturer Product Number	SMTL2-SUWD
Description	LED WHITE DIFFUSED 2PLCC SMD
Detailed Description	White LED Indication - Discrete 3.2V 2-PLCC



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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

SMTL2-SUWD

Series:

-

Color:

White

Lens Color:

Yellow

Millicandela Rating:

2650mcd

Lens Size:

-

Current - Test:

20mA

Mounting Type:

Surface Mount

Wavelength - Peak:

-

Package / Case:

2-PLCC

Size / Dimension:

3.20mm L x 2.80mm W

Base Product Number:

SMTL2

Manufacturer:

Bivar Inc.

Product Status:

Active

Configuration:

Standard

Lens Transparency:

Diffused

Lens Style:

Round with Flat Top

Voltage - Forward (Vf) (Typ):

3.2V

Viewing Angle:

120°

Wavelength - Dominant:

-

Features:

-

Supplier Device Package:

2-PLCC

Height (Max):

2.10mm

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

ECCN:

EAR99

Moisture Sensitivity Level (MSL):

4 (72 Hours)

HTSUS:

8541.41.0000

BIVAR

PLCC2 SMD Top View Package LED SMTL2-SUWD, SUPER WHITE

SMTL2-SUWD

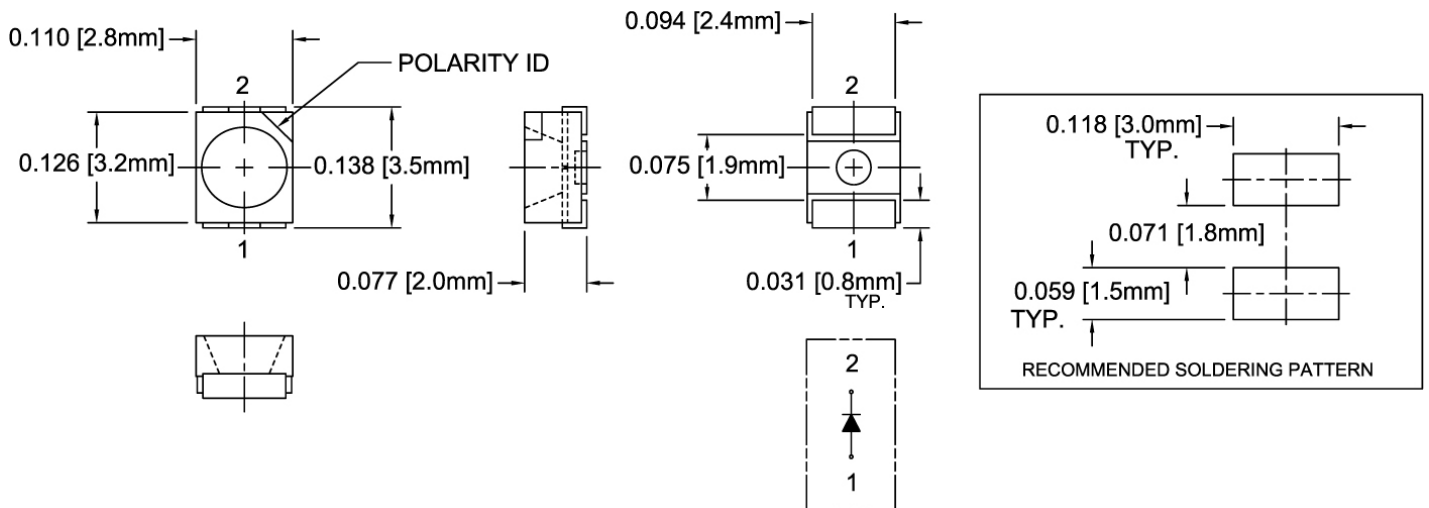
- ◆ Industry Standard PLCC2 Footprint
- ◆ Low Profile Package
- ◆ High Luminous Intensity
- ◆ Wide Viewing Angle
- ◆ High Power Efficiency



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	Lumen Typ. mcd	Lens Color	Viewing Angle
SMTL2-SUWD	InGaN/GaN	Super White	2650	Diffused	120°

Outline Dimensions



Outline Drawings Notes:

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



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

PLCC2 SMD Top View Package LED SMTL2-SUWD, SUPER WHITE



Absolute Maximum Ratings

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

Power Dissipation	80 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 ~ +100°C
Lead Soldering Temperature (1.6 mm from body) ²	260°C
Electrostatic Discharge (HBM)	2000 V

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

Electrical Characteristics

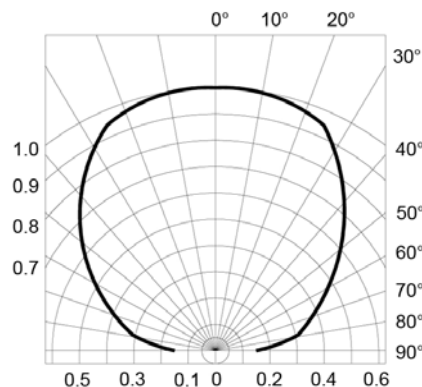
$T_A = 25^\circ\text{C}$ & $I_F = 20$ mA unless otherwise noted

Emitting Color	Forward Voltage (V) ¹		Recommend Forward Current (mA)	Reverse Current (μA) $V_R=5\text{V}$	Chromaticity Coordinates (XY) ²	Luminous Intensity (mcd) ³		Viewing Angle $2\theta_{1/2}$ (deg)
	TYP	MAX	TYP	MAX	TYP	MIN	TYP	TYP
Super White	3.2	4.0	20	10	X=0.30 , Y=0.30	2250	2650	120

- Notes: 1. Tolerance of Forward Voltage : $\pm 0.05\text{V}$.
2. Tolerance of Chromaticity Coordinates : ± 0.02 .
3. Tolerance of Luminous Intensity : $\pm 15\%$.

Directivity Radiation

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



Radiation Diagram

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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

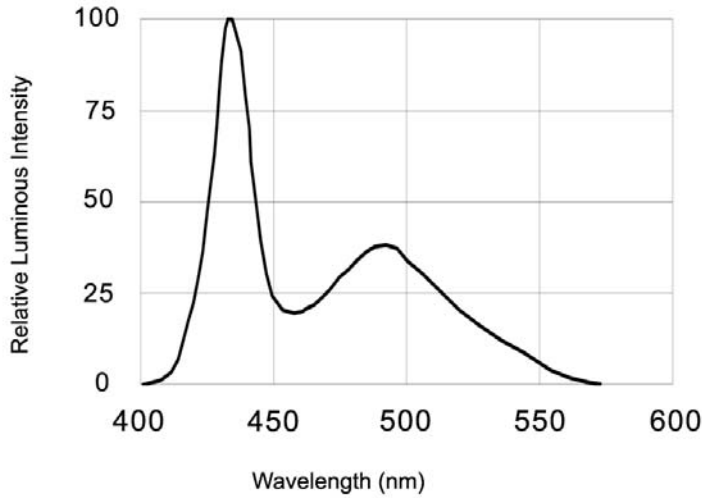


Fig.1 Relative Luminous Intensity vs. Wavelength

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

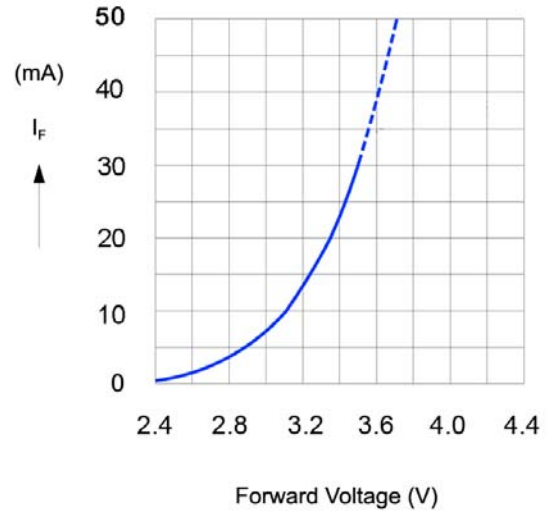


Fig.2 Forward Current vs. Forward Voltage

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

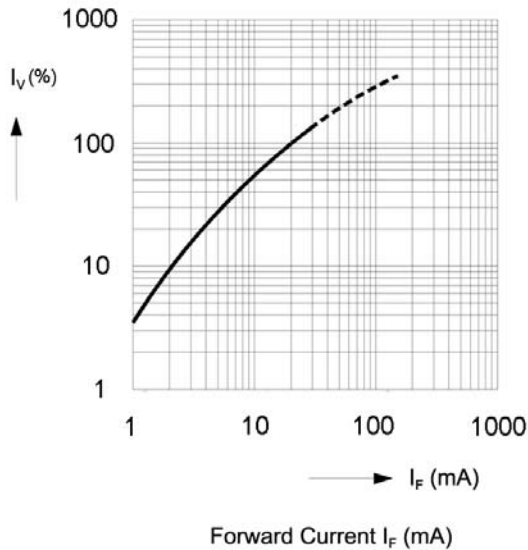


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

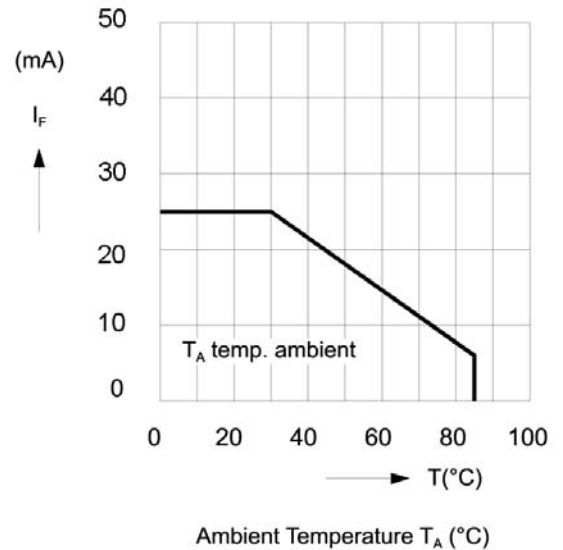


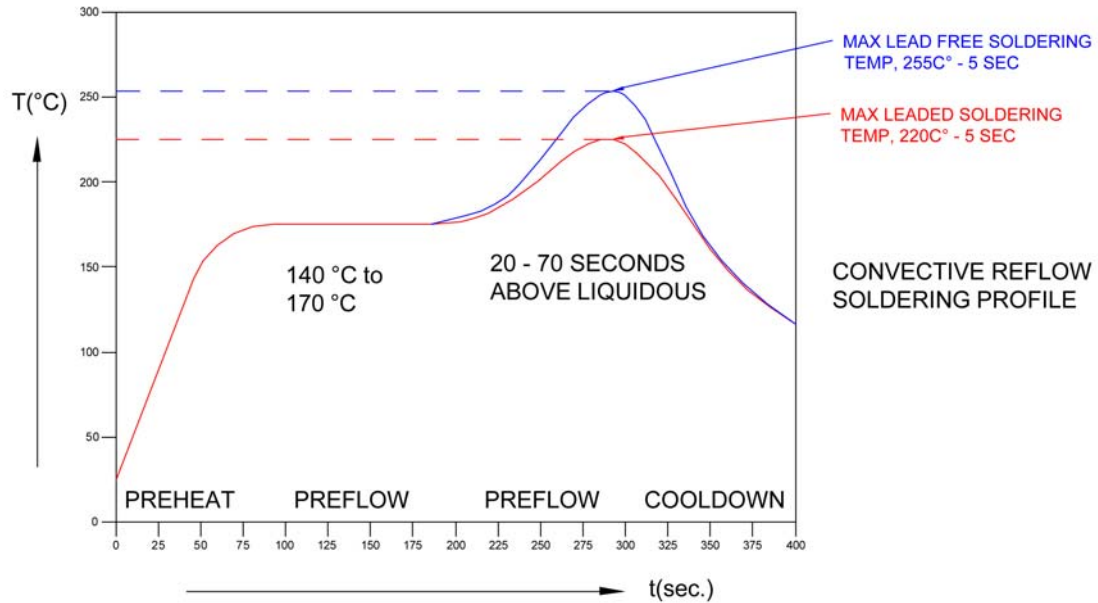
Fig.4 Forward Current vs. Ambient Temperature

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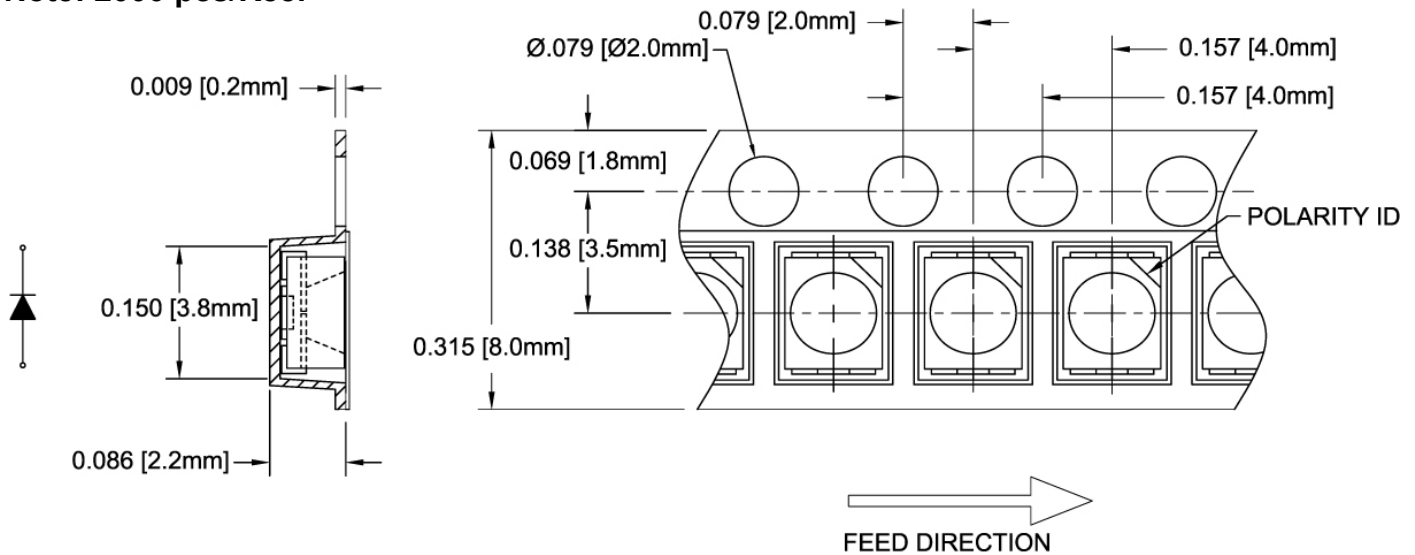
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Recommended Soldering Conditions



Tape and Reel Dimensions

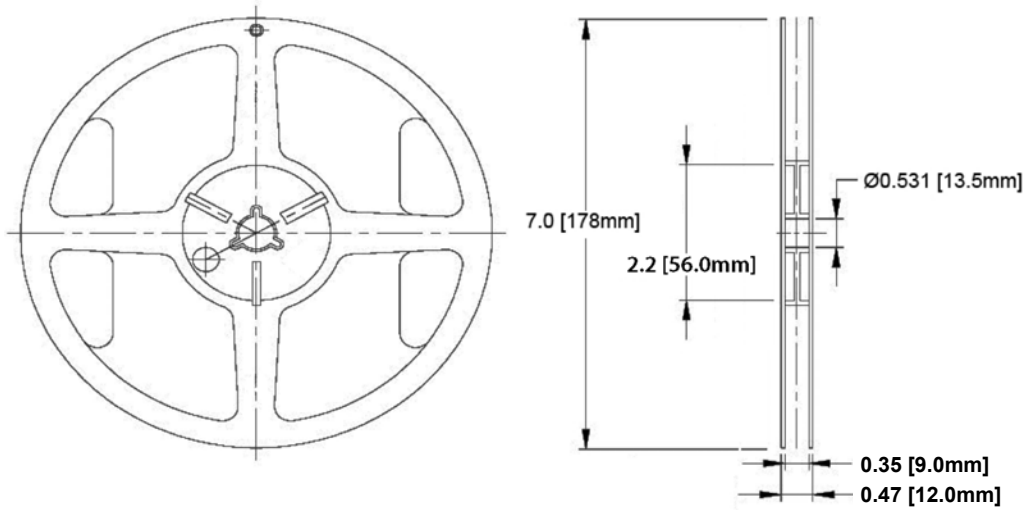
Note: 2000 pcs/Reel



Outline Drawings Notes:
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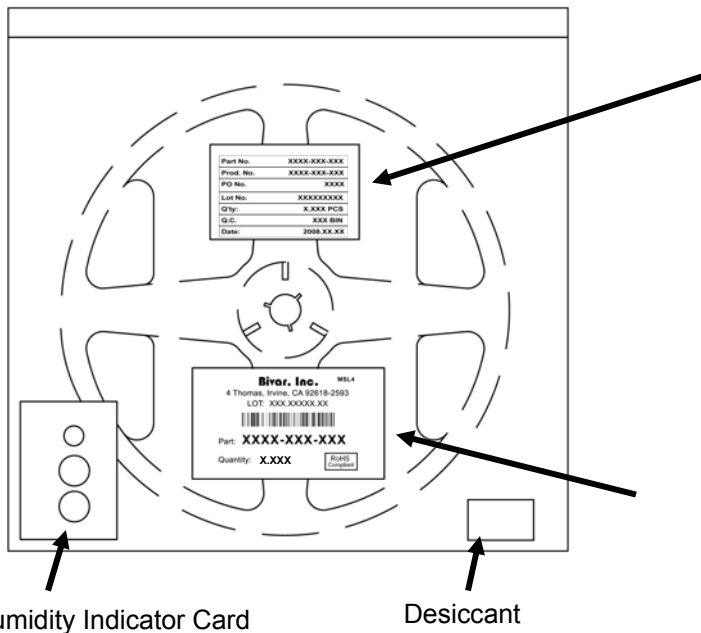
Outline Drawings Notes:

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

Packaging and Labeling Plan

Note: 1 Reel / Bag

Sealed ESD and Moisture Barrier 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

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