PLCC4 SMD Top View Package LED SMTL4-SBC-YG, YELLOW/GREEN

SMTL4-SBC-YG

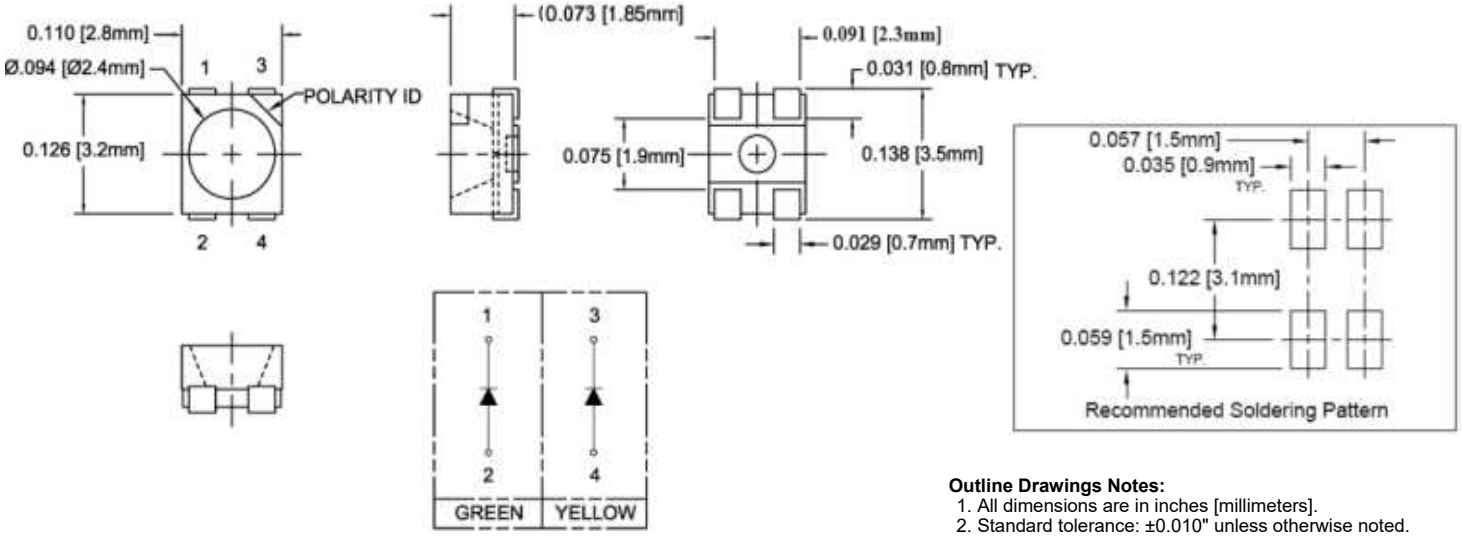
- **Industry Standard PLCC4 Footprint**
- **2 Super Bright Chips in One Low Profile Package**
- **High Luminous Intensity**
- **Wide Viewing Angle**
- **High Power Efficiency**



Bivar SMTL4 Super Bright Bi-Color LED combines two chips in a single package and is offered in an industry standard PLCC4 footprint. The SMTL4 LED has a water clear lens for high luminous intensity and wide viewing angle making them ideal for outdoor illumination applications where higher ambient lighting conditions exist. The robust package is ideal for harsh working environments and can be clustered in LED arrays for maximum illumination. Low power consumption and excellent long life reliability are suitable for battery powered equipment. Bivar SMTL4 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Luminous Intensity Typ. mcd	Lens Color	Viewing Angle
SMTL4-SBC-YG	AlGaInP	Yellow	145	Water Clear	120°
	AlGaInP	Green	72		

Outline Dimensions



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

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

Moisture Sensitivity Levels 4

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

Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	72 mW
Continuous Forward Current	30 mA
Peak Forward Current [1]	100 mA
Reverse Voltage	5 V
Electrostatic Discharge Classification (HBM)	2000 V
Derating Linear From 25°C	0.4 mA/°C
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +85°C
Soldering Temperature [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. Proper handling required to avoid ESD damage and impair LED reliability.

Electrical Characteristics

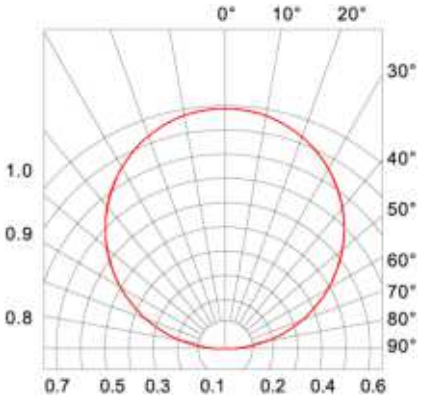
T_A = 25°C & I_F = 20 mA unless otherwise noted

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 2 Θ ½ (deg)
	TYP	MAX	TYP	MAX	TYP	MIN	TYP	TYP
Yellow	1.9	2.4	20	10	591	115	145	120
Green	1.9	2.4	20	10	574	45	72	

Notes: 1. Tolerance of Forward Voltage : ±0.05V.
2. Tolerance of Dominant Wavelength : ±2.5nm.
3. Tolerance of Luminous Intensity : ±15%.

Directivity Radiation

T_A = 25°C unless otherwise noted



Radiation Diagram

Typical Electrical / Optical Characteristics Curves

T_A = 25°C unless otherwise noted

Relative Spectrum Emission I_{rel} = f (l), T_A = 25°C , I_F = 20 mA
V(l) = Standard eye response curve

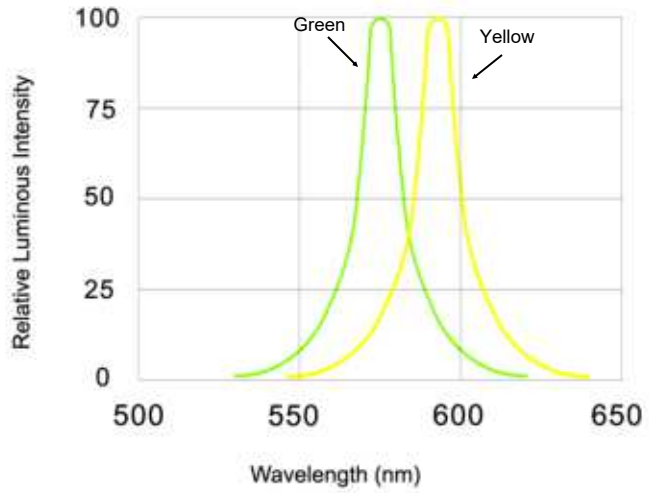


Fig.1 Relative Luminous Intensity vs. Wavelength

Forward Current I_F = f (V_F)
T_A = 25°C

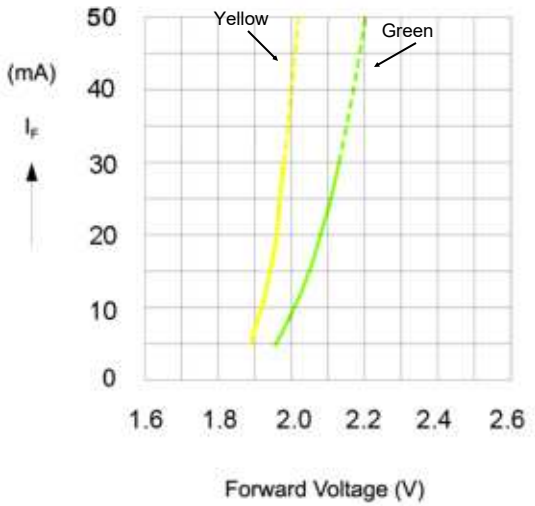


Fig.2 Forward Current vs. Forward Voltage

Relative Luminous Intensity I_V/I_V (20 mA) = f (I_F)
T_A = 25°C

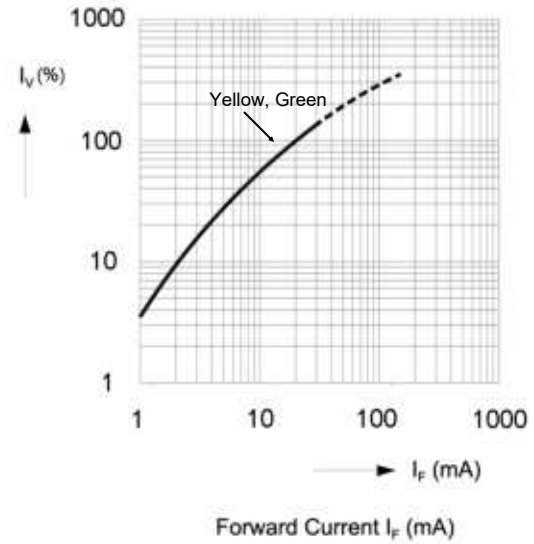


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

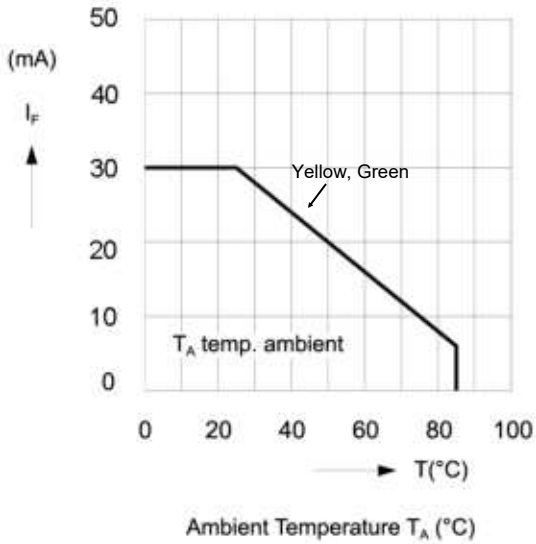
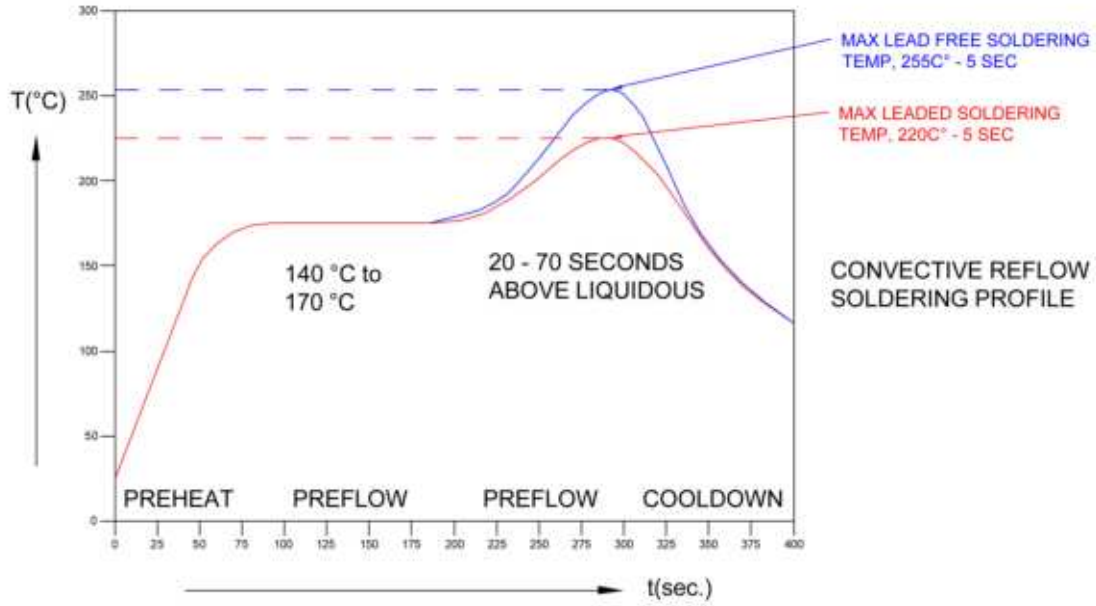


Fig.4 Forward Current vs. Ambient Temperature

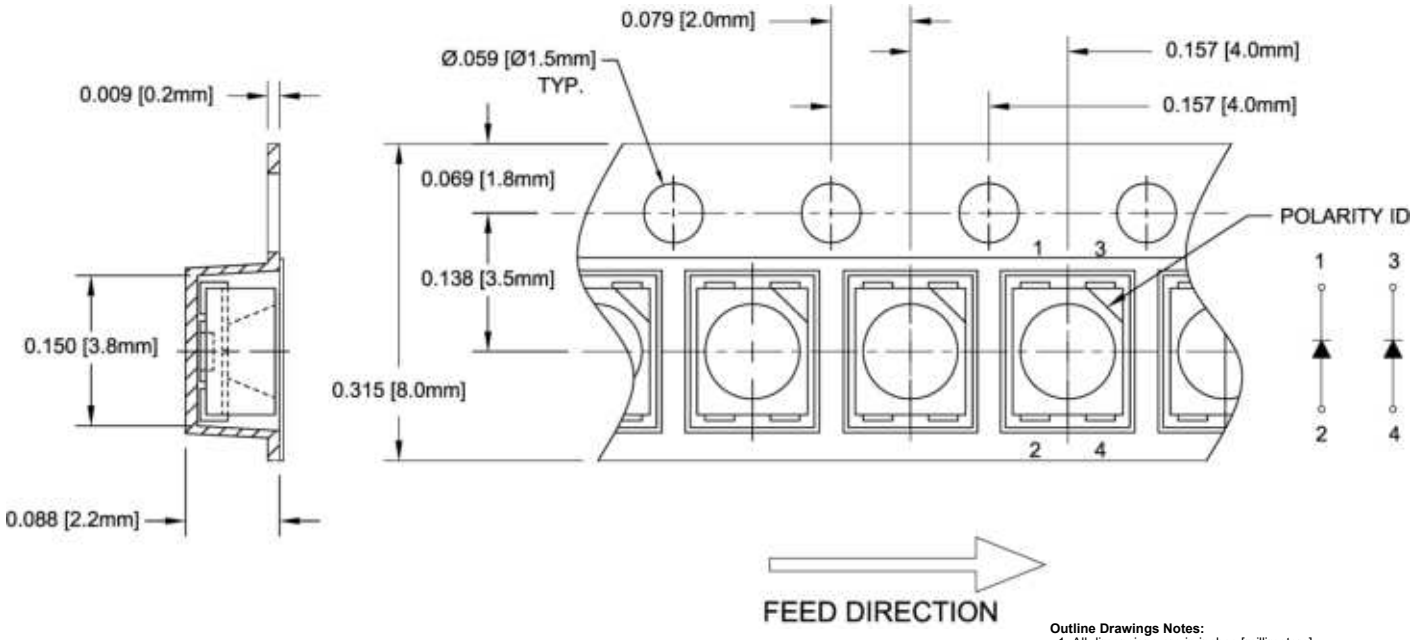
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Recommended Soldering Conditions



Tape and Reel Dimensions

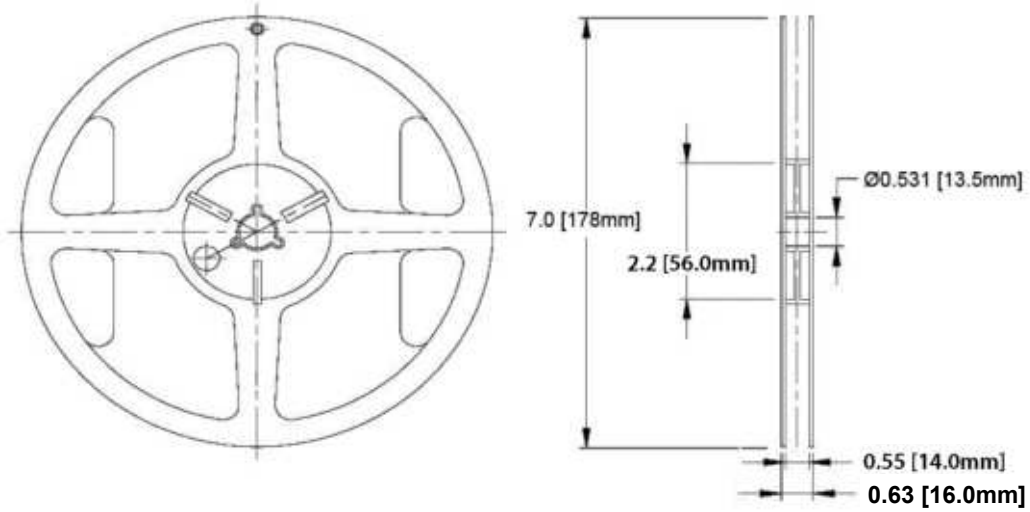
Note: 2000 pcs/Reel



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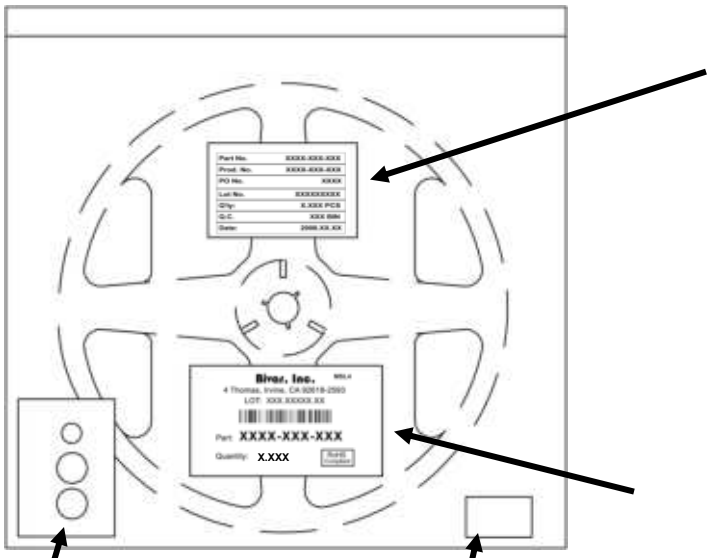


Outline Drawings Notes:
1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"
   X.X ± 0.1"

Packaging and Labeling Plan

Note: 1 Reel / Bag

Sealed ESD and Moisture Barrier Bag



Humidity Indicator Card

Desiccant

Part No.	XXXX-XXX-XXX
Prod. No.	XXXX-XXX-XXX
PO No.	XXXX
Lot No.	XXXXXXXXX
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.

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REVISION HISTORY			
Rev	**Description**	**Date**	**Approved**
A	Engineering Release	02/26/16	Jeffrey Chiang
B	Updated Dimensions and Properties	05/24/24	Ricardo Pereyra