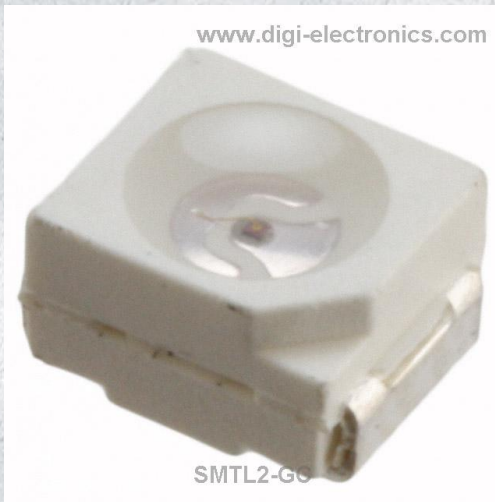


# SMTL2-GC Datasheet



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

DiGi Electronics Part Number	SMTL2-GC-DG
Manufacturer	<a href="#">Bivar Inc.</a>
Manufacturer Product Number	SMTL2-GC
Description	LED GREEN CLEAR 2PLCC SMD
Detailed Description	Green 570nm LED Indication - Discrete 1.9V 2-PLCC



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

SMTL2-GC

Series:

-

Color:

Green

Lens Color:

Colorless

Millicandela Rating:

40mcd

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:

Clear

Lens Style:

Round with Flat Top

Voltage - Forward (Vf) (Typ):

1.9V

Viewing Angle:

120°

Wavelength - Dominant:

570nm

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

# PLCC2 SMD Top View Package LED SMTL2-GC, GREEN



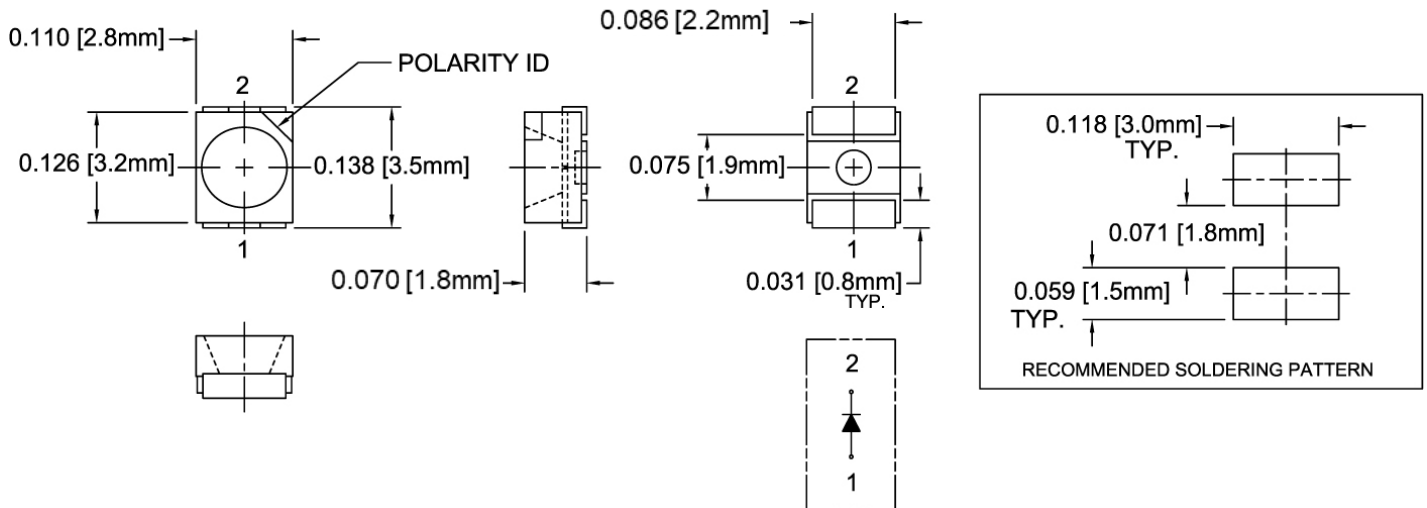
## SMTL2-GC

- ◆ 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	Luminous Intensity Typ. mcd	Lens Color	Viewing Angle
SMTL2-GC	GaP	Green	22.5	Water Clear	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-GC, GREEN



## Absolute Maximum Ratings

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

Power Dissipation	78 mW
Continuous Forward Current	30 mA
Peak Forward Current <sup>1</sup>	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 ~ +85°C
Lead Soldering Temperature ( 1.6 mm from body ) <sup>2</sup>	260°C

Notes: 1. 10% Duty Cycle, Pulse Width  $\leq 0.1$  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. ESD can damage the die and impair reliability.

## 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 ( $\mu\text{A}$ ) $V_R=5\text{V}$	Dominant Wavelength (nm) <sup>2</sup>			Luminous Intensity (mcd) <sup>3</sup>			Viewing Angle $2\theta_{1/2}$ (deg)
	MIN	TYP	MAX	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
Green	1.8	2.0	2.3	20	10	568	572	576	18.0	22.5	36.0	120

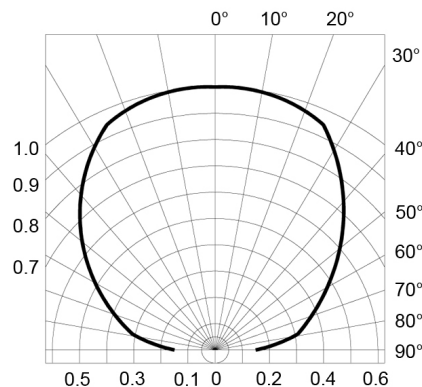
Notes: 1. Tolerance of Forward Voltage :  $\pm 0.05\text{V}$ .

2. Tolerance of Dominant Wavelength : -1nm of MIN & +1nm of MAX..

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 Top View Package LED SMTL2-GC, GREEN



## 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

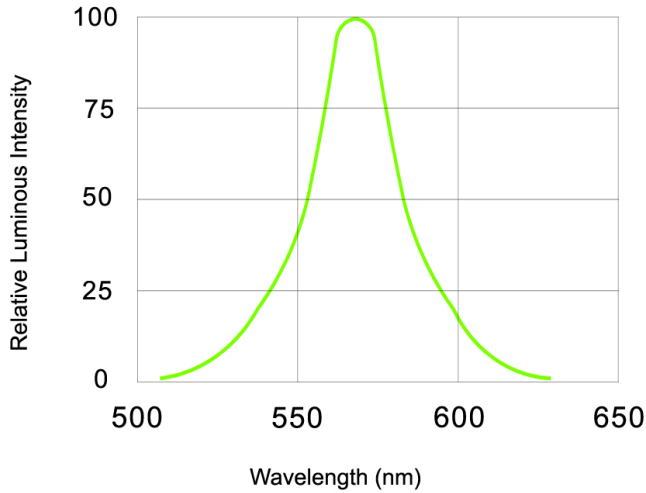


Fig.1 Relative Luminous Intensity vs. Wavelength

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

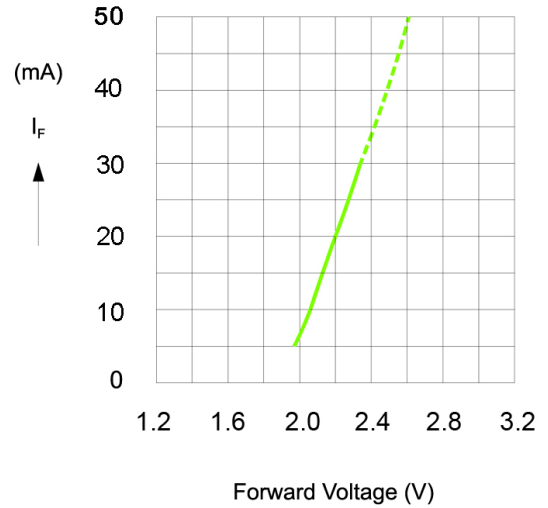


Fig.2 Forward Current vs. Forward Voltage

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

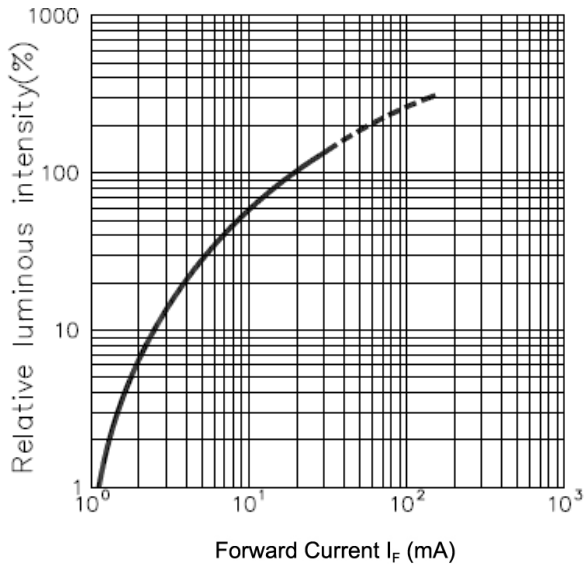


Fig.3 Relative Luminous Intensity vs. Forward Current

Ambient Temperature vs. Allowable Forward Current

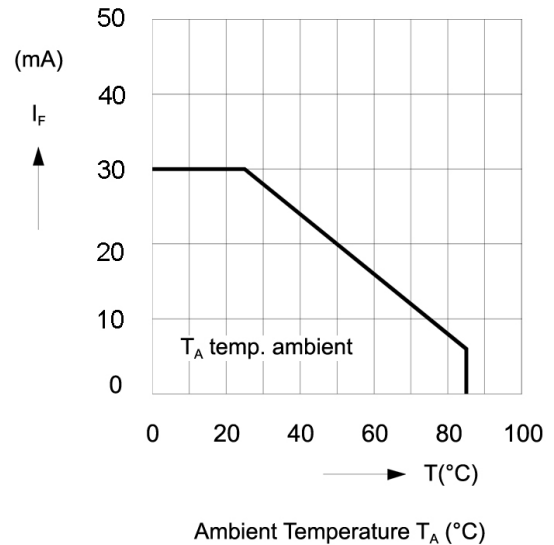


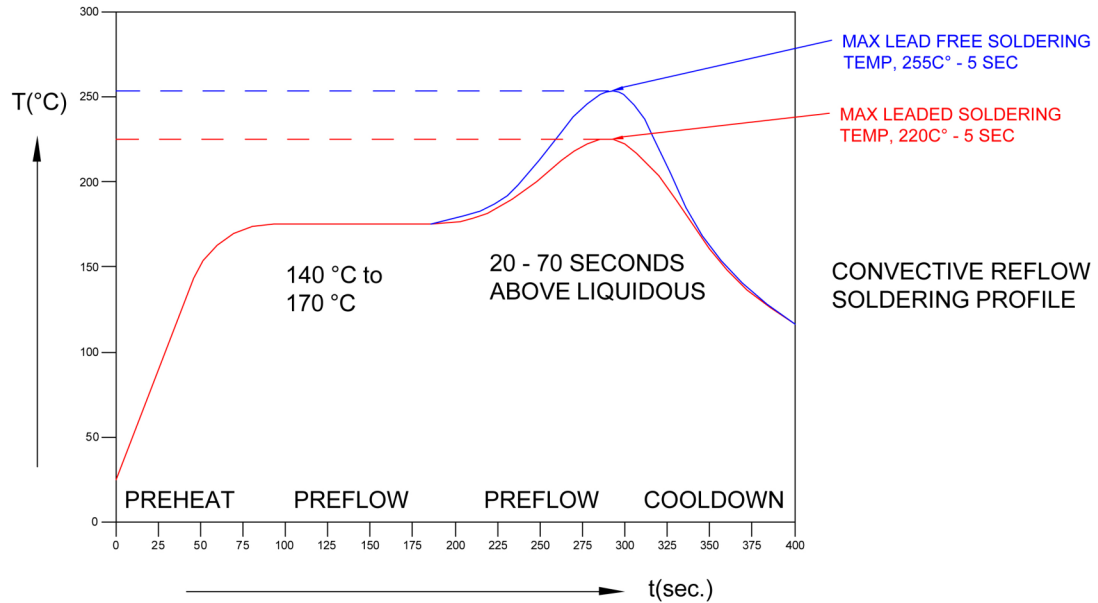
Fig.4 Forward Current vs. Ambient Temperature

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# PLCC2 SMD Top View Package LED SMTL2-GC, GREEN

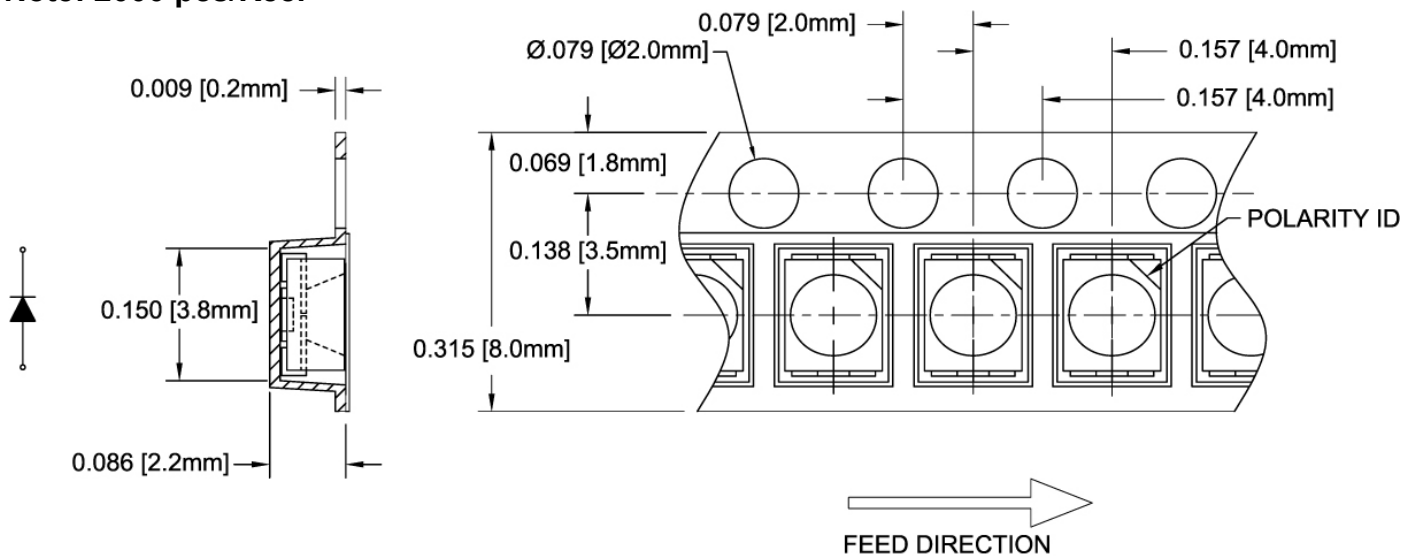


## Recommended Soldering Conditions



## Tape and Reel Dimensions

**Note: 2000 pcs/Reel**

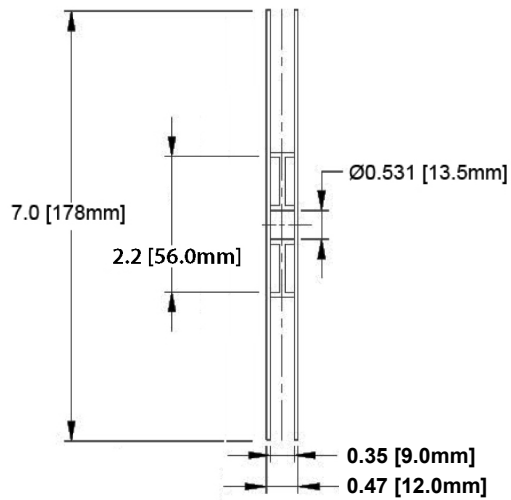
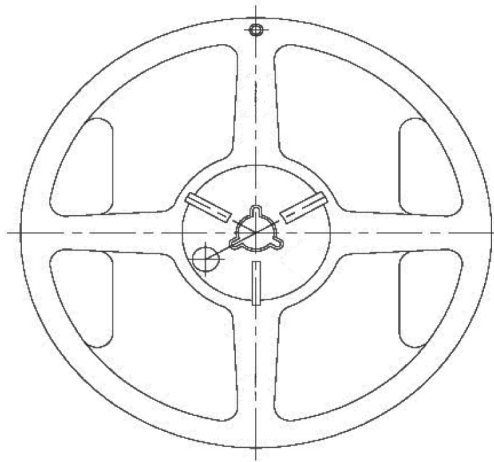


**Outline Drawings Notes:**  
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 2. Standard tolerance:  $\pm 0.010''$  unless otherwise noted.

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# PLCC2 SMD Top View Package LED SMTL2-GC, GREEN



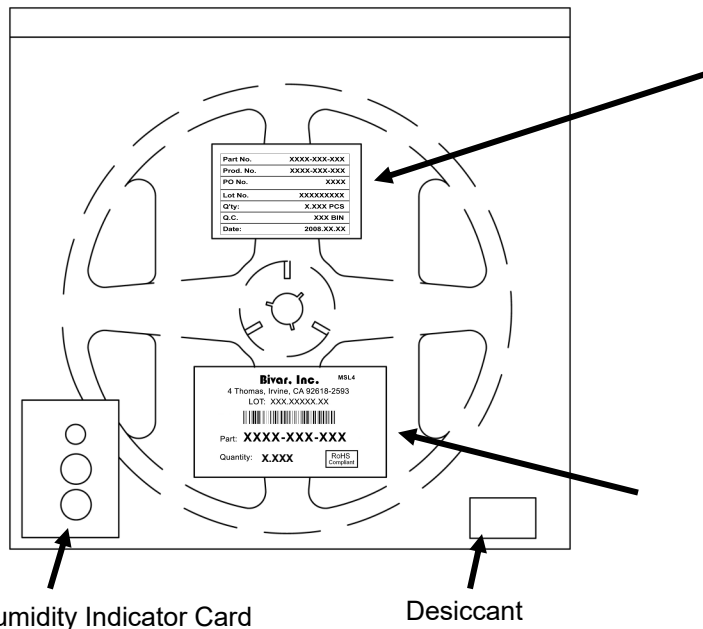
**Outline Drawings Notes:**

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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## OUR CERTIFICATE

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