# BIVAR

#### SM0605BC-Y/G

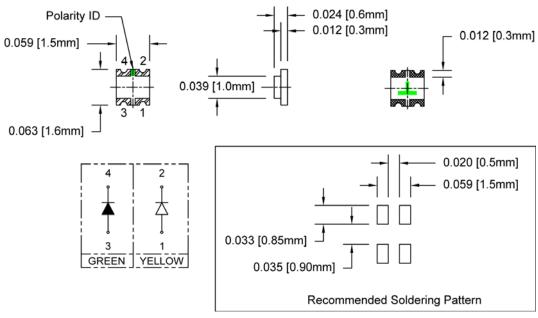
- ♦ Industry Standard 0605 Package
- **♦** RoHS Compliant
- ♦ 2 Chips in One Small Package and Footprint
- Water Clear Lens
- ♦ Wide Viewing Angle
- Ideal for Status Indication, Display, and Backlighting



Bivar now offers its smallest Bi-Color Surface Mount LED to date which gives designers the edge they need for smaller board designs that require multiple color outputs. Its miniature size makes it ideal for almost any application where board space is a priority without compromise to quality, and it's long life and low power consumption are more than suitable for battery powered hand held devices and other portable products. This SM0605 LED is packaged in standard tape and reels for auto pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λp (nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle	
SM0605BC-Y/G	AlGaInP	YELLOW	592	Water Clear	180	120°	
	AlGaInP GREEN		575	vvalei Cleai	60	120	

#### **Outline Dimensions**



#### **Outline Drawings Notes:**

- 1. All dimensions are in inches [millimeters].
- 2. Standard tolerance: ±.010" unless otherwise noted.







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



#### Absolute Maximum Ratings

 $T_A = 25$ °C unless otherwise noted

Power Dissipation	Yellow - 78 mW Green - 78 mW
Continuous Forward Current	Yellow - 30 mA Green - 30 mA
Peak Forward Current <sup>1</sup>	100 mA
Reverse Voltage	5 V
Derating Linear From 25°C	0.4 mA/°C
Electrostatic Discharge (HBM)	2000 V
Operating Temperature Range	-30 ~ +80°C
Storage Temperature Range	-40 ~ +85°C
Lead Soldering Temperature <sup>2</sup>	260°C

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

#### **Electrical / Optical Characteristics**

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

Part Number	Emitted Color	Forward Voltage (V)			Recommend Forward Current (mA)		Dominant Wavelength (nm)		Luminous Intensity Iv (mcd)		Viewing Angle 2 Θ ½ (deg)			
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM0605BC-Y/G	Yellow	/	2.1	2.6	/	20	/	/	590	/	115	180	/	120
	Green	/	2.2	2.6	/	20	/	/	574	/	36	60	/	

#### **Typical Electrical / Optical Characteristics**

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

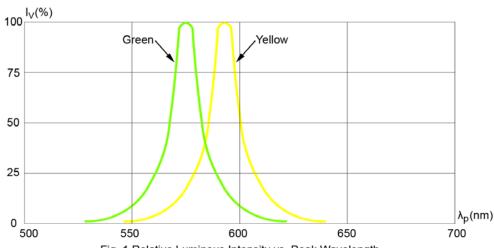


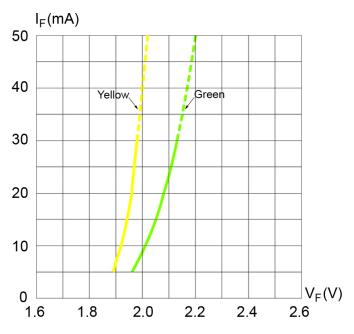
Fig. 1 Relative Luminous Intensity vs. Peak Wavelength

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#### Typical Electrical / Optical Characteristics (Continued)

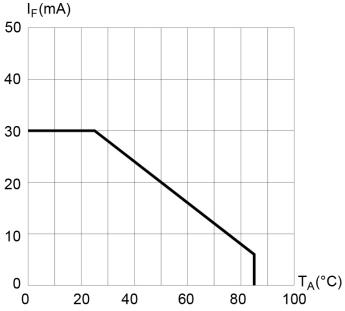
T<sub>A</sub> = 25°C unless otherwise noted

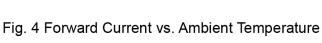


1000
100
100
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100
100
1000

Fig. 2 Forward Current vs. Forward Voltage

Fig. 3 Relative Luminous Intensity vs. Forward Current





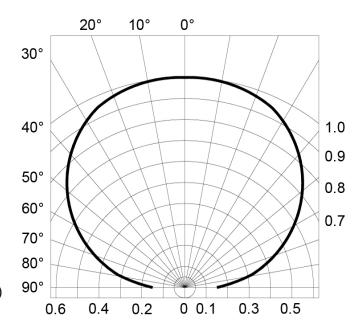
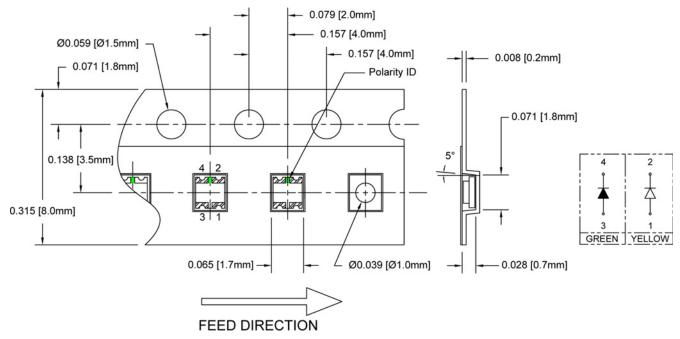


Fig. 5 Directivity Radiation Diagram

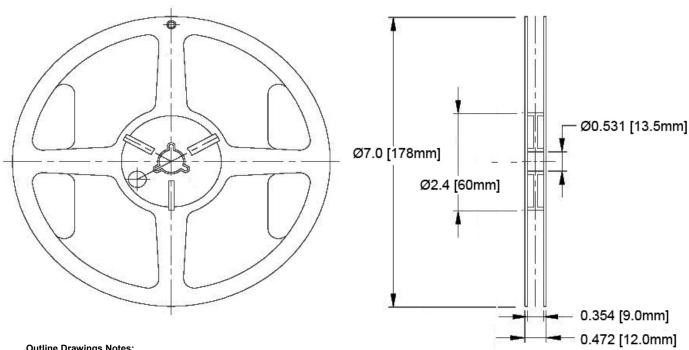


#### **Tape and Reel Dimensions**

Note: 4000 pcs / Reel



- Outline Drawings Notes:
  1. All dimensions are in inches [millimeters].
- 2. Standard tolerance: ±.010" unless otherwise noted.



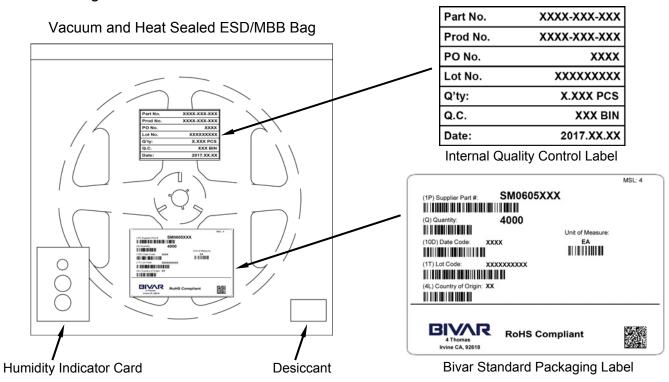
#### **Outline Drawings Notes:**

- 1. All dimensions are in inches [millimeters].
- 2. Standard tolerance: .xxx±.010", .x±.1" unless otherwise noted.

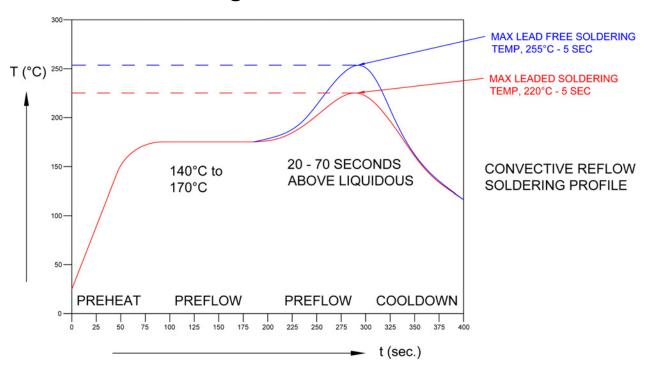


#### Packaging and Labeling Plan

Note: 1 Reel / Bag



#### **Recommended Soldering Conditions**



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