

SURFACE MOUNT LED RED/GREEN, 1204 PACKAGE

BIVAR

SM1204BC-R/G

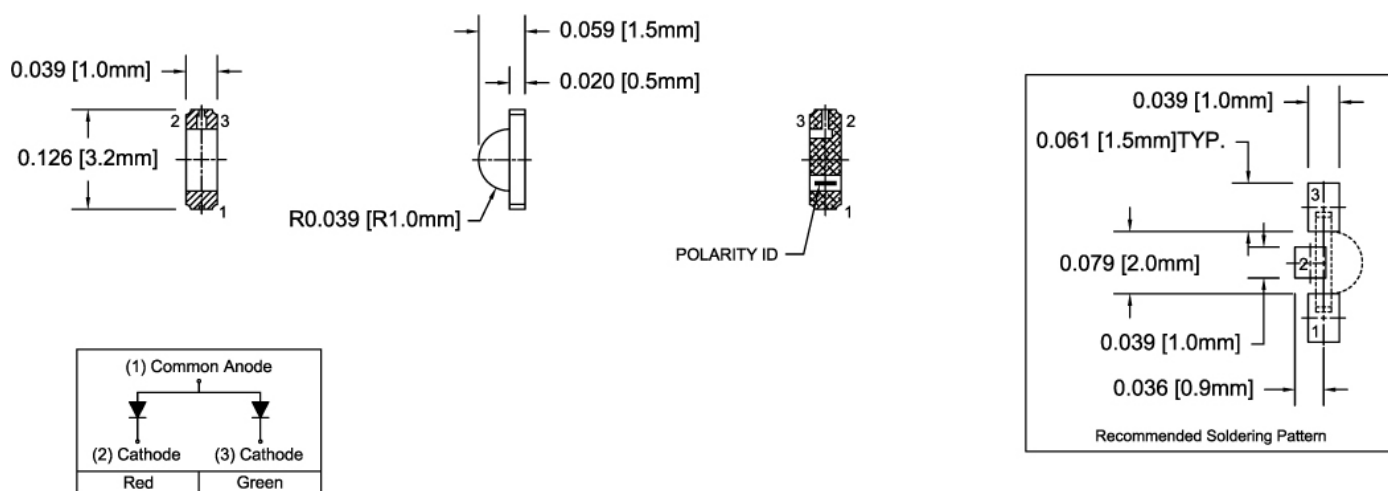
- ◆ Industry Standard 1204 Package
- ◆ RoHS Compliant
- ◆ Two Chips in One Package
- ◆ Right Angle Mounting
- ◆ Water Clear Lens
- ◆ Wide Viewing Angle
- ◆ Ideal for Status Indication and Display



Bivar Surface Mount 1204 Bi-Color LED combines two chips in a single package. The right angle package is ideal for small scale applications where multiple signals need to be displayed. The third color can be created by powering up both chips together. Low power consumption and excellent long life reliability are ideal for battery powered equipment. Bivar offers water clear LED lens for maximum luminous intensity. Wide variety of wavelength and intensity combinations are available to meet any illumination need. The SM1204 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λ_p (nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM1204BC-R/G	AlGaInP	RED	645	Water Clear	115	110°
	AlGaInP	GREEN	575		45	

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.

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Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	78 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	100 mA
Reverse Voltage	5 V
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +85°C
Lead Soldering Temperature (3 mm from the base of the epoxy bulb) ²	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) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _v (mcd)			Viewing Angle 2 Θ ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1204BC-R/G	RED	1.85	2.1	2.6	/	20	/	10	623	631	640	90	115	145	110
	GREEN	2.0	2.1	2.6	/	20	/	10	568	574	576	28.5	45	72	

Notes: 1. Tolerance of forward voltage : ±0.05V. 2. Tolerance of dominant wavelength : ±1.0nm.

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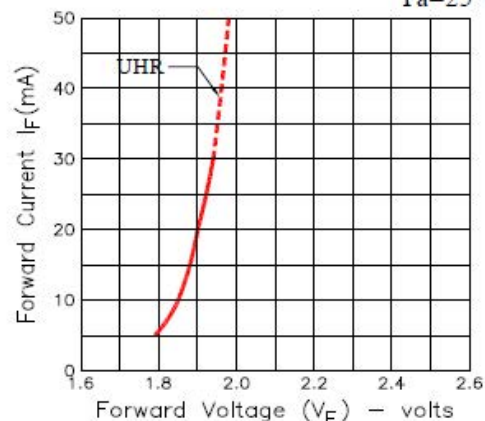


Typical Electrical / Optical Characteristics/Red

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

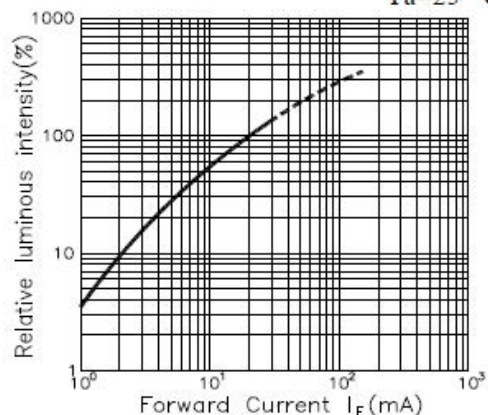
Forward Current Vs. Forward Voltage

$T_A = 25^\circ\text{C}$

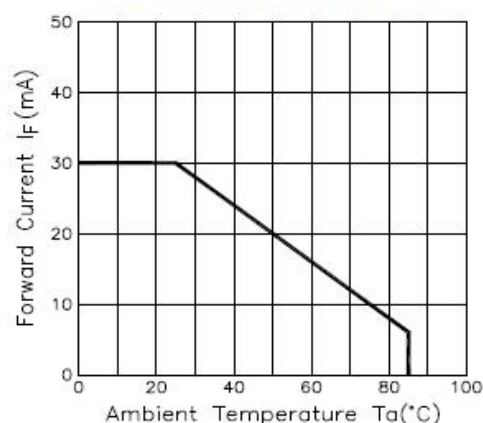


Luminous Intensity Vs. Forward Current

$T_A = 25^\circ\text{C}$

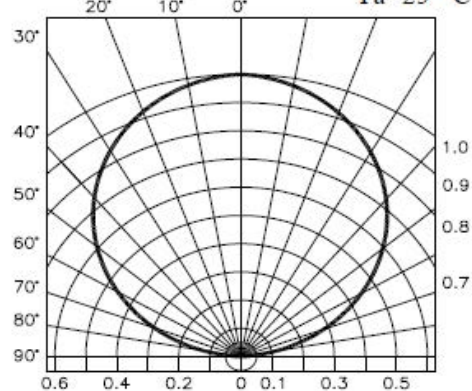


Forward Current Derating Curve

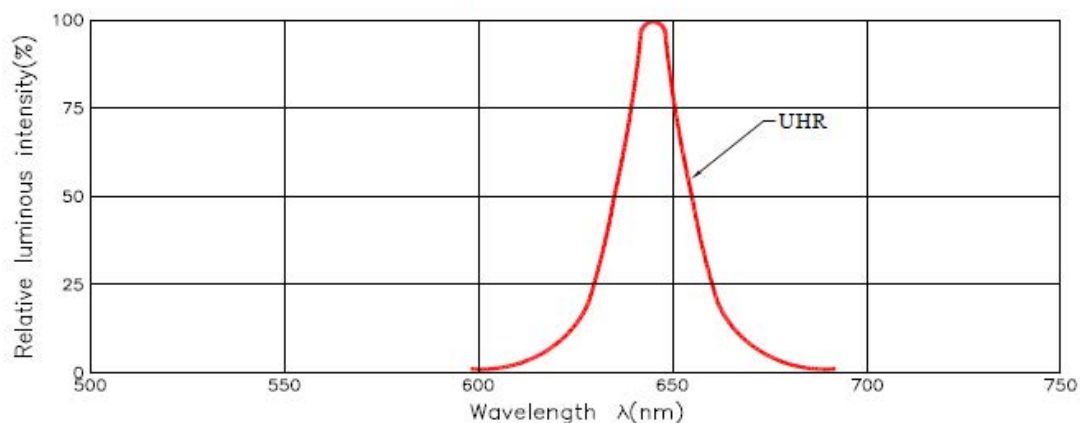


Radiation Diagram

$T_A = 25^\circ\text{C}$



Spectrum Distribution



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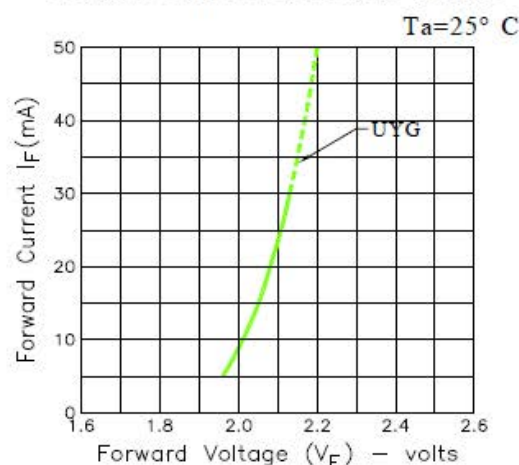
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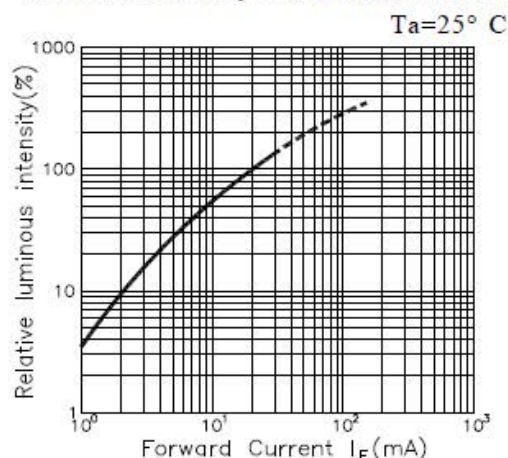
Typical Electrical / Optical Characteristics/ Green

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

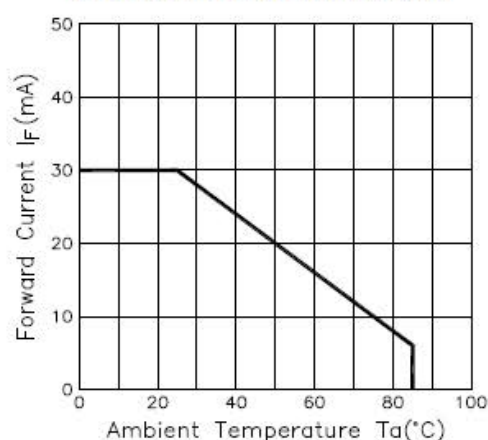
Forward Current Vs. Forward Voltage



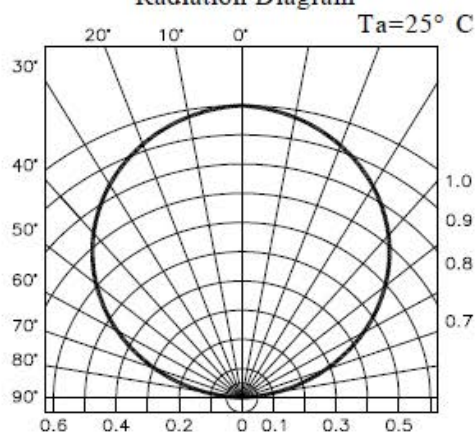
Luminous Intensity Vs. Forward Current



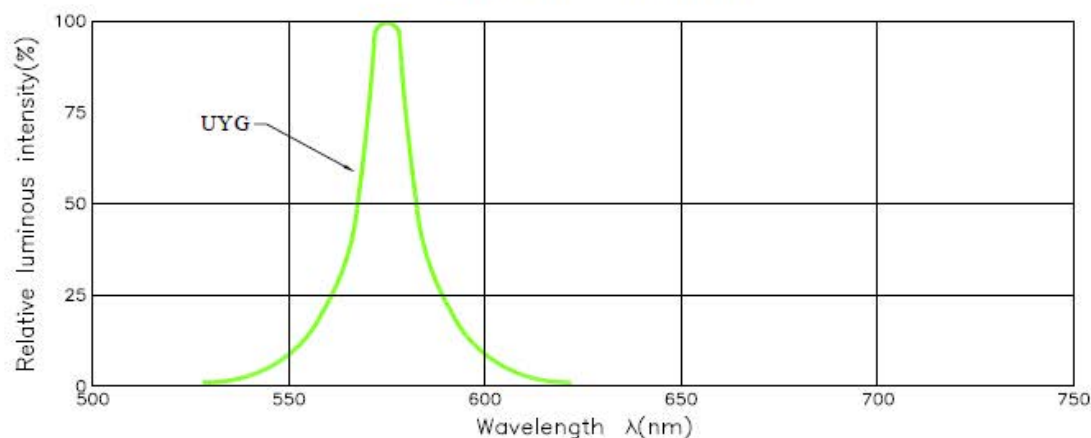
Forward Current Derating Curve



Radiation Diagram



Spectrum Distribution

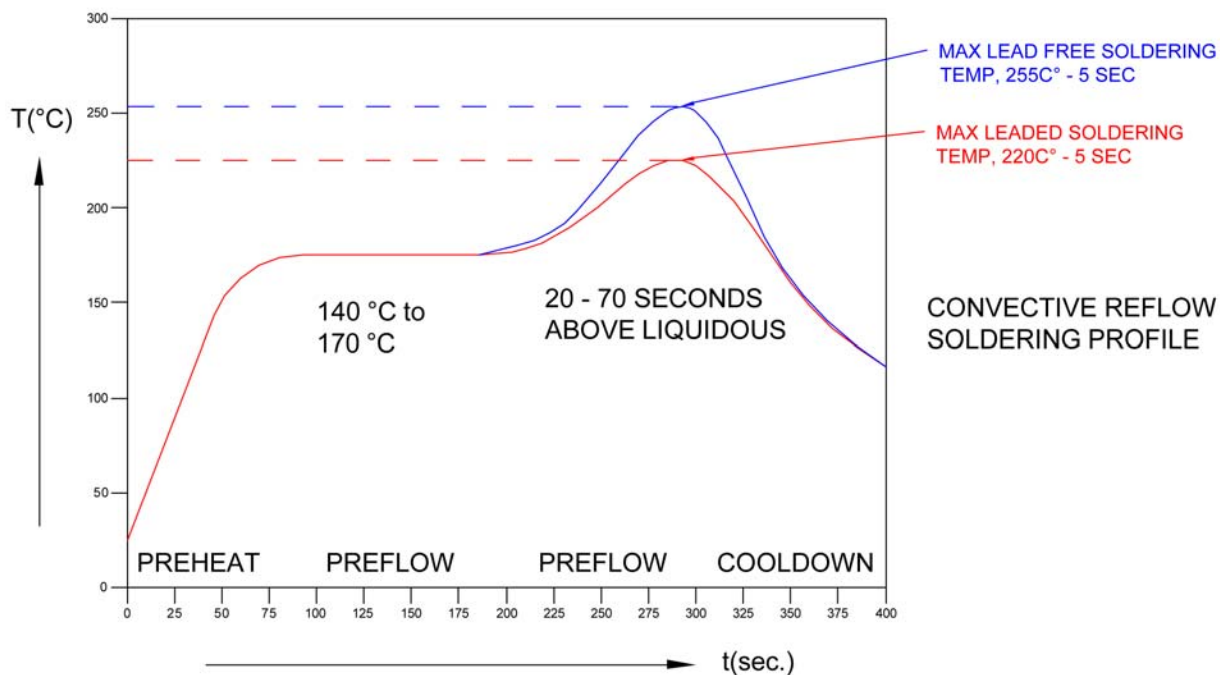


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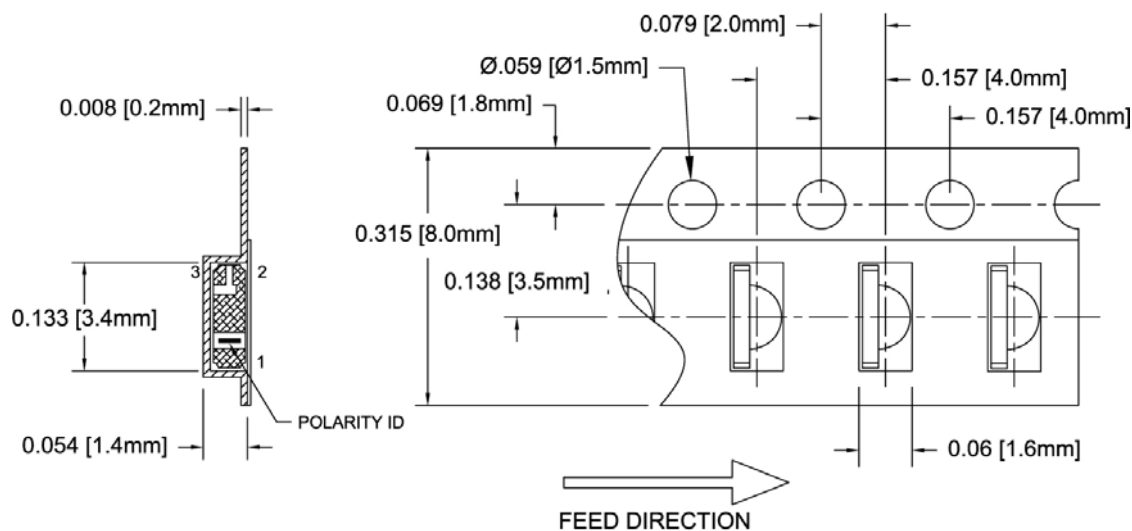


Recommended Soldering Conditions



Tape and Reel Dimensions

Note: 3000 pcs/Reel



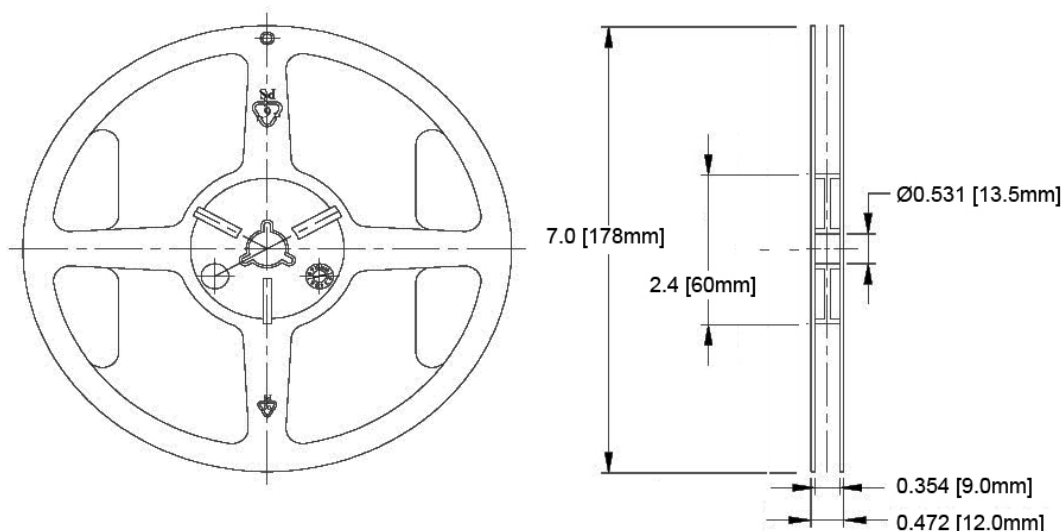
Outline Drawings Notes:

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

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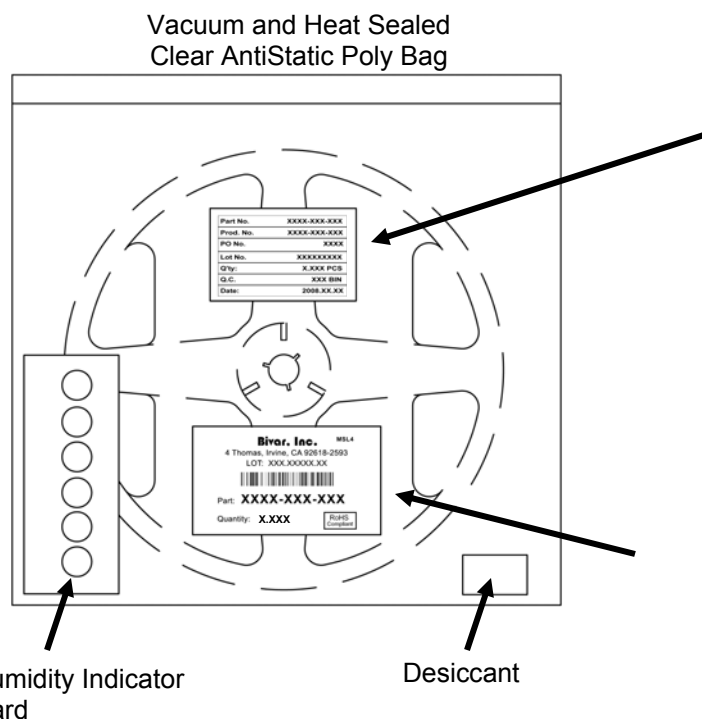


Outline Drawings Notes:

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



Bivar Standard Packaging Label

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