

SM0805UOC

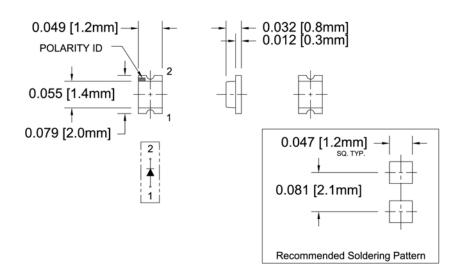
- Industry Standard 0805 Package
- RoHS Compliant
- Small Package and Footprint
- Water Clear Lens
- Wide Viewing Angle
- Ideal for Status Indication, Display, and Backlighting



Bivar Surface Mount 0805 package LED may be used in nearly any lighting or indication application. The miniature package is ideal for small scale applications such as general indication and backlighting. Low power consumption and excellent long life reliability are suitable 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 SM0805 LED is packaged in standard tape and reels for pick and place assemblies.

Part Number	Material	Emitted Color	Peak Wavelength λp(nm) TYP.	Lens Appearance	Luminous Intensity (mcd) TYP.	Viewing Angle
SM0805UOC	AlGaInP	ORANGE	630	Water Clear	80	130°

Outline Dimensions



Outline Drawings Notes:

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





Absolute Maximum Ratings

 $T_A = 25^{\circ}C$ 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	-30 ~ +80°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 \leq 0.1 msec. 2. Solder time less than 5 seconds at temperature extreme.

Electrical / Optical Characteristics

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

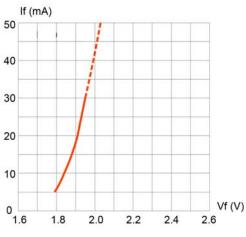
Part Number	Forward Voltage (V) ¹		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant		Luminous Intensity Iv (mcd)			Viewing Angle 2 O ½ (deg)			
	MIN	ТҮР	MAX	MIN	ΤΥΡ	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	ТҮР
SM0805UOC	/	2.1	2.6	/	20	/	10	/	625	/	30	80	/	130

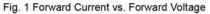
Notes: 1. Tolerance of forward voltage : $\pm 0.05V$. 2. Tolerance of dominant wavelength : ± 1.0 nm.



Typical Electrical / Optical Characteristics

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





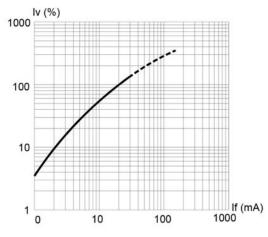
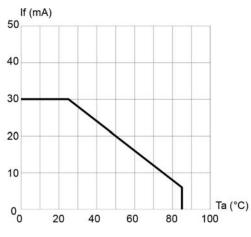


Fig. 2 Relative Luminous Intensity vs. Forward Current





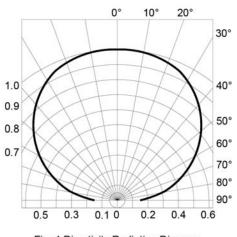
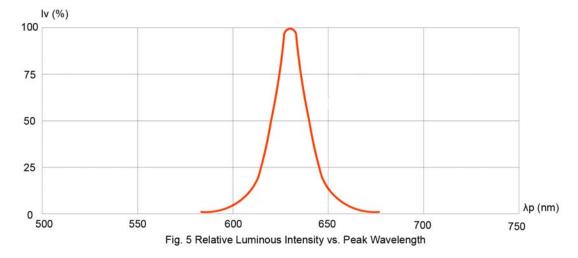


Fig. 4 Directivity Radiation Diagram

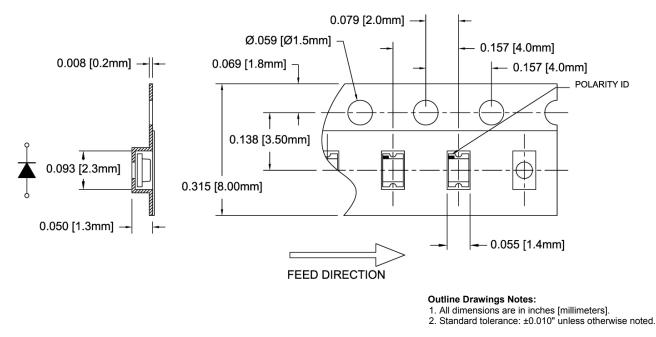




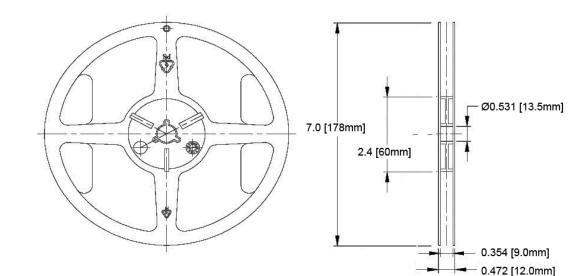
Recommended Soldering Conditions

300 MAX LEAD FREE SOLDERING TEMP, 255C° - 5 SEC T(°C) 250 MAX LEADED SOLDERING TEMP, 220C° - 5 SEC 200 20 - 70 SECONDS 150 CONVECTIVE REFLOW 140 °C to ABOVE LIQUIDOUS SOLDERING PROFILE 170 °C 100 50 PREHEAT PREFLOW PREFLOW COOLDOWN 0 125 150 225 250 275 325 350 375 175 200 300 25 50 75 100 400 Ó t(sec.)

Tape and Reel Dimensions Note: 4000 pcs/Reel





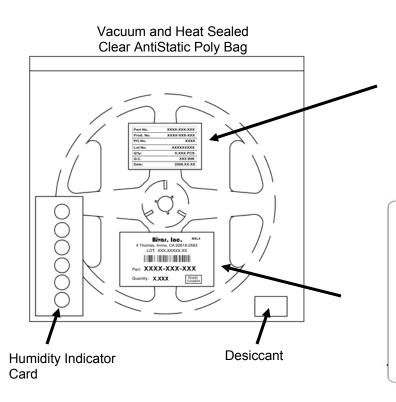


Outline Drawings Notes:

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

X.X ± 0.01 X.X ± 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. Inc.	MSL4
4 Thomas, Irvine, CA 92618	-2593
LOT: XXX.XXXXX.XX	1
Part: XXXX-XXX-X	ХХ
Quantity: X.XXX	RoHS Compliant

Bivar Standard Packaging Label

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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