

5mm (T1 ¾) Package Discrete LED GREEN, Ultra Bright

BIVAR

5UGC-X

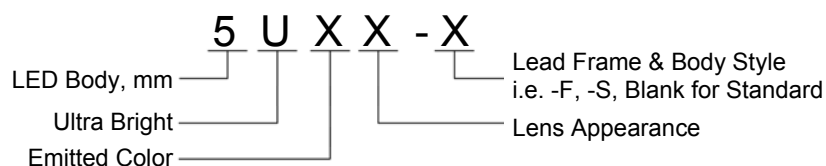
- ◆ Industry Standard 5mm (T1 ¾) Package
- ◆ RoHS Compliant
- ◆ Water Clear Lens
- ◆ Available in Flange (F) and Standard (Blank) Lead Frame styles
- ◆ Up to 600 mcd Luminous Intensity at 20 mA
- ◆ Ideal for Back Lighting, Status Indication, and Display



Bivar 5mm T1 ¾ Package Ultra Bright LED is ideal for those applications where intensive ambient lighting exists such as Back Lighting, Signage, and Sunlight Readable applications. Bivar offers water clear LED lens for maximum light output. The Flanged LED is ideal for Panel Mount Clip & Ring assemblies and the Standard Lead frame LED is ideal for vertical spacer assemblies without lead bends.

Part Number	Material	Emitted Color	Peak. Wavelength λ_p (nm) TYP.	Lens Appearance	Viewing Angle
5UGC-F	AlGaInP	GREEN	570nm	Water Clear	35°
5UGC				Water Clear	35°

Part Number Designation

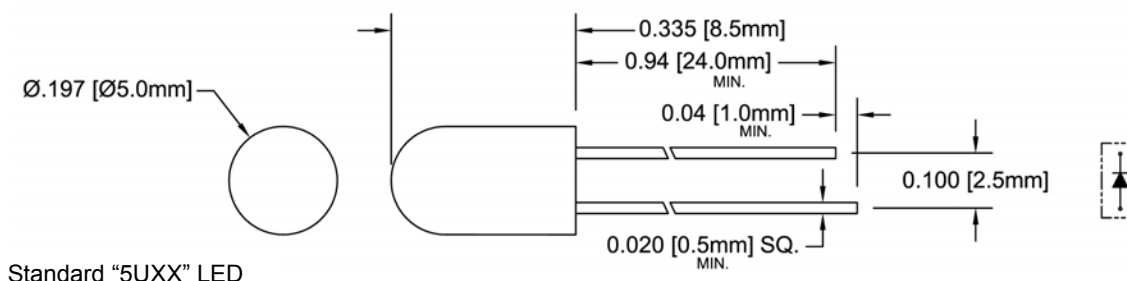


Bivar reserves the right to make changes at any time without notice.

Technical drawing of the Flanged "5UXX-F" LED. The drawing includes a top view and a side view with the following dimensions:

- Top View Dimensions:**
 - Flat Edge Cathode ID
 - Ø.224 [Ø5.7mm] Flange Dia. (F Series)
 - Ø.197 [Ø5.0mm]
- Side View Dimensions:**
 - 0.339 [8.6mm]
 - 0.94 [24.0mm] MIN.
 - 0.04 [1.0mm] MIN.
 - 0.020 [0.5mm] SQ. MIN.
 - 0.039 [1.0mm]
 - 0.100 [2.5mm]

The drawing also includes a symbol for a flange on the right side.



Recommended Mounting
Hole Size = $\varnothing.032^{+.003}_{-.002}$

5mm (T1 3/4) Package Discrete LED GREEN, Ultra Bright



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	100 mW
Forward Current (DC)	30 mA
Peak Forward Current ¹	150 mA
Reverse Voltage	5 V
Operating Temperature Range	-25 ~ +85°C
Storage Temperature Range	-30 ~ +100°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	Forward Voltage (V) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			Luminous Intensity I _v (mcd)			Viewing Angle 2 Θ 1/2 (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
5UGC-F	/	2.1	2.4	/	20	/	100	/	/	/	/	400	/	35
5UGC								/	/	/	/	600	/	35

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

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Typical Electrical / Optical Characteristics

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

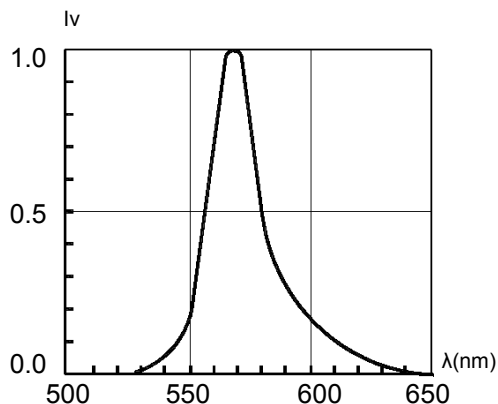


Fig. 1 Relative Luminous Intensity vs. Wavelength
@ 20mA

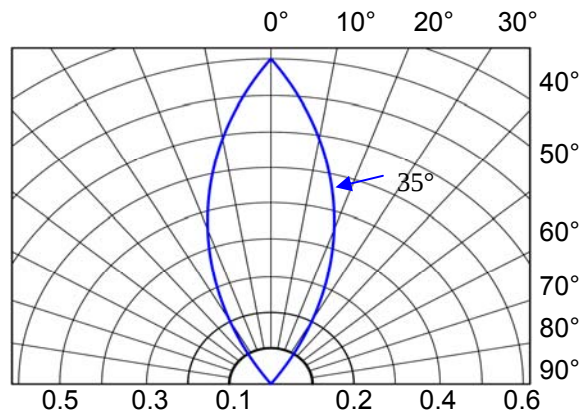


Fig. 2 Directivity Radiation Diagram

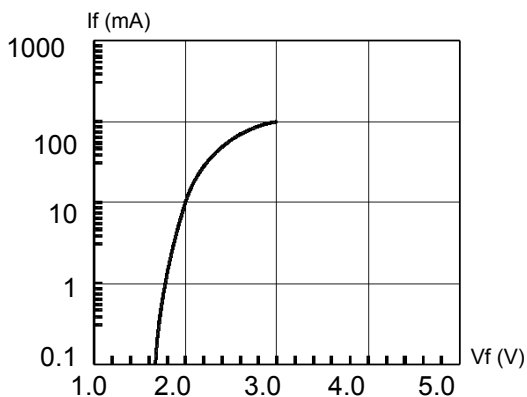


Fig. 3 Forward Current vs. Forward Voltage

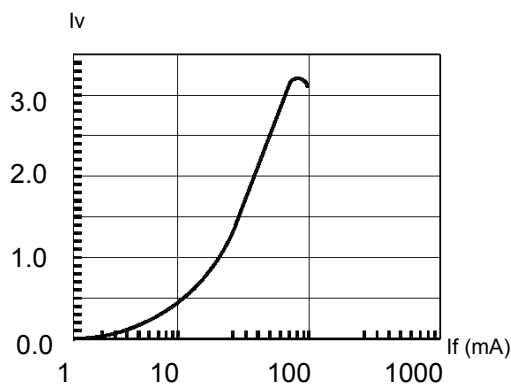


Fig. 4 Relative Luminous Intensity vs. Forward Current
Normalize @ 20 mA

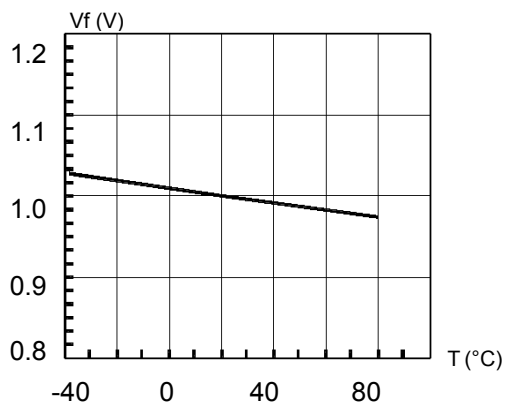


Fig. 5 Forward Voltage vs. Temperature

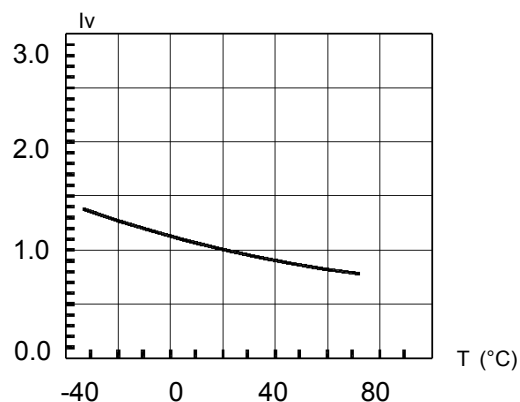


Fig. 6 Relative Luminous Intensity vs. Temperature

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Recommended Soldering Conditions



Recommended Lead Free Wave Soldering Profile	
Preheat Temperature: 100°C Max.	Peak Temperature: 260°C Max.
Preheat Time: 20 ~ 50 Seconds	Solder Time Above 217°C: 5 Seconds Max.
Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.	

Packaging and Labeling Plan



Bivar, Inc.	MSL 1
4 Thomas, Irvine, CA 92618-2593	
LOT: XXX.XXXXX.XX	
Part: XXXX-XXX-XXX	
Quantity: .500	
RoHS Compliant	

AntiStatic Poly Bag with Desiccant
(500 pcs Max. per Bag)

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