

# 5mm (T1 3/4) Package Discrete LED GREEN, 12V

**BIVAR**

## 5GX12V-X

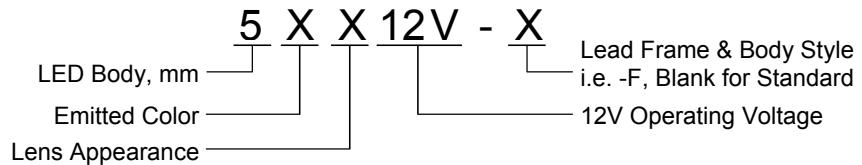
- ♦ Industry Standard 5mm (T1 3/4) Package
- ♦ RoHS Compliant
- ♦ Water Clear (C) and Diffused (D) Lenses
- ♦ Available in Flange (F) and Standard (Blank) Lead Frame styles
- ♦ 12V Operating Voltage
- ♦ Ideal for Status Indication and Display



Bivar 5mm T1 3/4 Package 12V LED is ideal for applications equipped with regular 12V power supplies such as servers and computer peripherals, and applications operated by 12V batteries such as automobiles and boats. Bivar offers water clear LED lens for maximum light output and diffused LED lens for uniform 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.

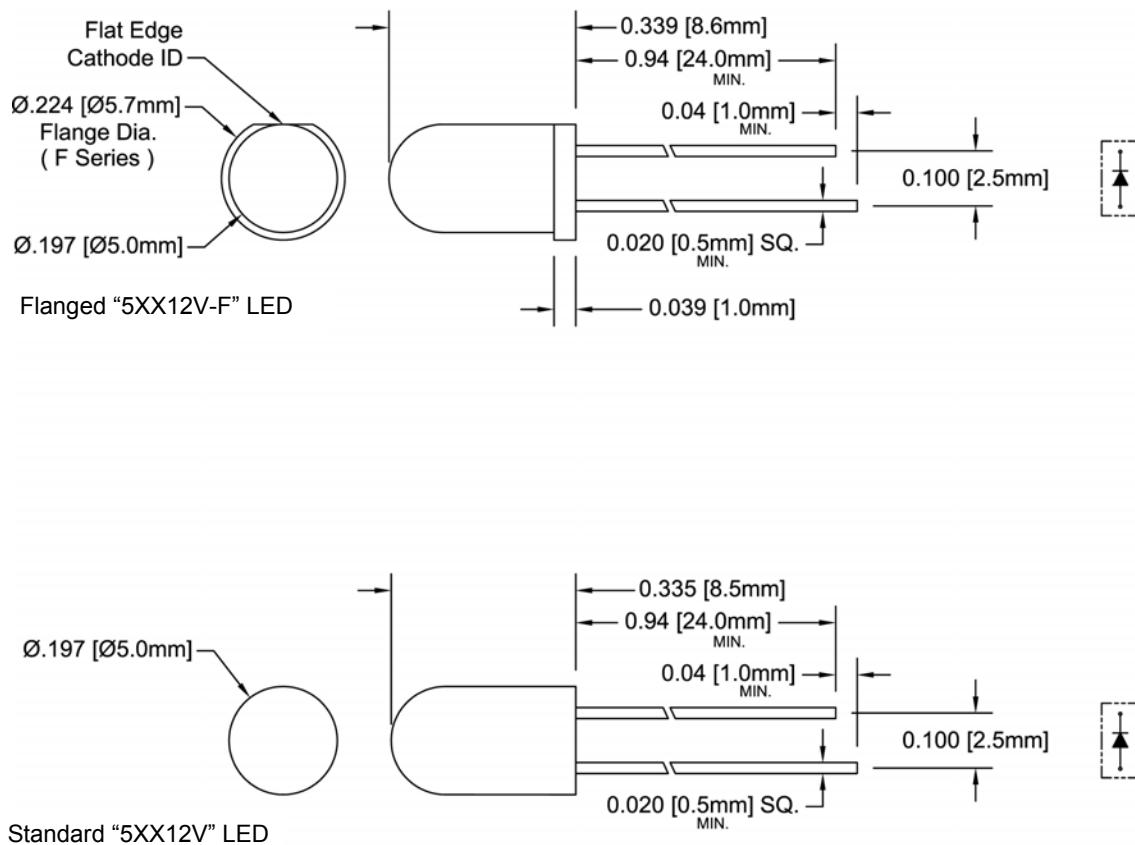
Part Number	Material	Emitted Color	Peak. Wavelength $\lambda_p$ (nm) TYP.	Lens Appearance	Viewing Angle
5GC12V-F	GaP/GaP	GREEN	568nm	Water Clear	35°
5GD12V-F				Green Diffused	40°
5GC12V				Water Clear	35°
5GD12V				Green Diffused	45°

## Part Number Designation



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

## Outline Dimensions



Recommended Mounting  
Hole Size =  $\varnothing 0.032^{+.003}_{-.002}$

**Outline Drawings Notes:**  
 1. All dimensions are in inches [millimeters].  
 2. Standard tolerance:  $\pm 0.010"$  unless otherwise noted.  
 3. Tolerance of overall epoxy outline:  $\pm 0.020"$  unless otherwise noted.  
 4. Epoxy meniscus may extend to 0.060" max.

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## Absolute Maximum Ratings

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

|                                                                                  |              |
|----------------------------------------------------------------------------------|--------------|
| Power Dissipation                                                                | / mW         |
| Forward Current ( DC )                                                           | 10mA         |
| Peak Forward Current <sup>1</sup>                                                | 12 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 ) <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<sub>A</sub> = 25°C & V<sub>f</sub> = 12V unless otherwise noted

| Part Number | Forward Voltage (V) <sup>1</sup> |     |     | Recommend Forward Current (mA) |     |     | Reverse Current (µA) | Dominant Wavelength (nm) <sup>2</sup> |     |     | Luminous Intensity Iv (mcd) |     |     | Viewing Angle 2 Θ 1/2 (deg) |
|-------------|----------------------------------|-----|-----|--------------------------------|-----|-----|----------------------|---------------------------------------|-----|-----|-----------------------------|-----|-----|-----------------------------|
|             | MIN                              | TYP | MAX | MIN                            | TYP | MAX |                      | MAX                                   | MIN | TYP | MAX                         | MIN | TYP | MAX                         |
| 5GC12V-F    | /                                | /   | 12  | /                              | /   | /   | 100                  | /                                     | /   | /   | /                           | 40  | /   | 35                          |
| 5GD12V-F    |                                  |     |     |                                |     |     |                      | /                                     | /   | /   | /                           | 25  | /   | 40                          |
| 5GC12V      | /                                | /   | 12  | /                              | /   | /   | 100                  | /                                     | /   | /   | /                           | 40  | /   | 35                          |
| 5GD12V      |                                  |     |     |                                |     |     |                      | /                                     | /   | /   | /                           | 25  | /   | 45                          |

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

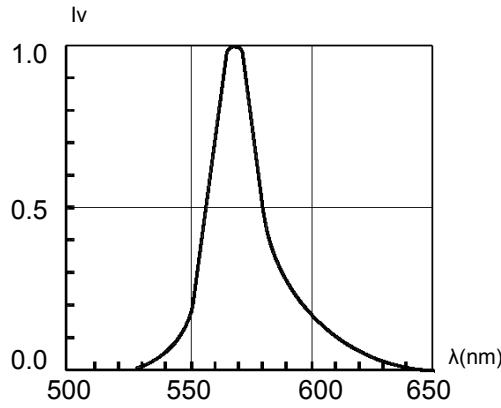


Fig. 1 Relative Luminous Intensity vs. Wavelength

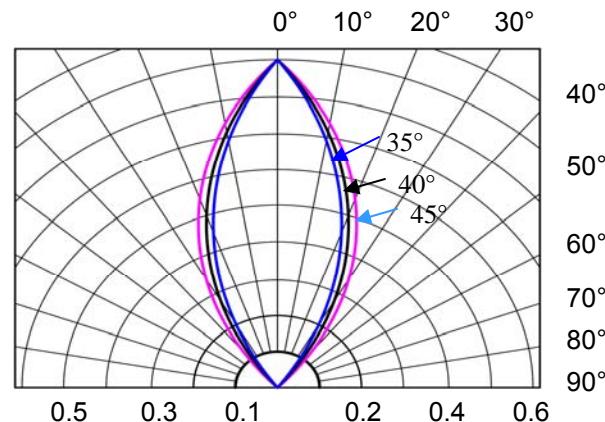


Fig. 2 Directivity Radiation Diagram

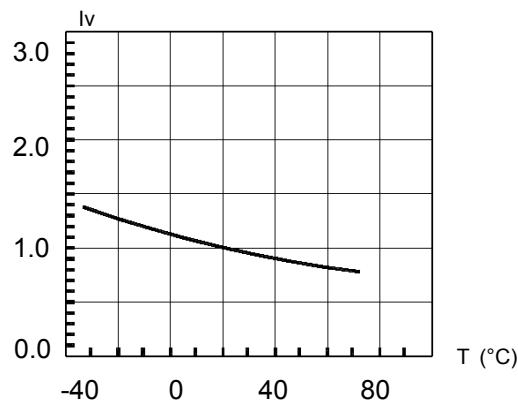


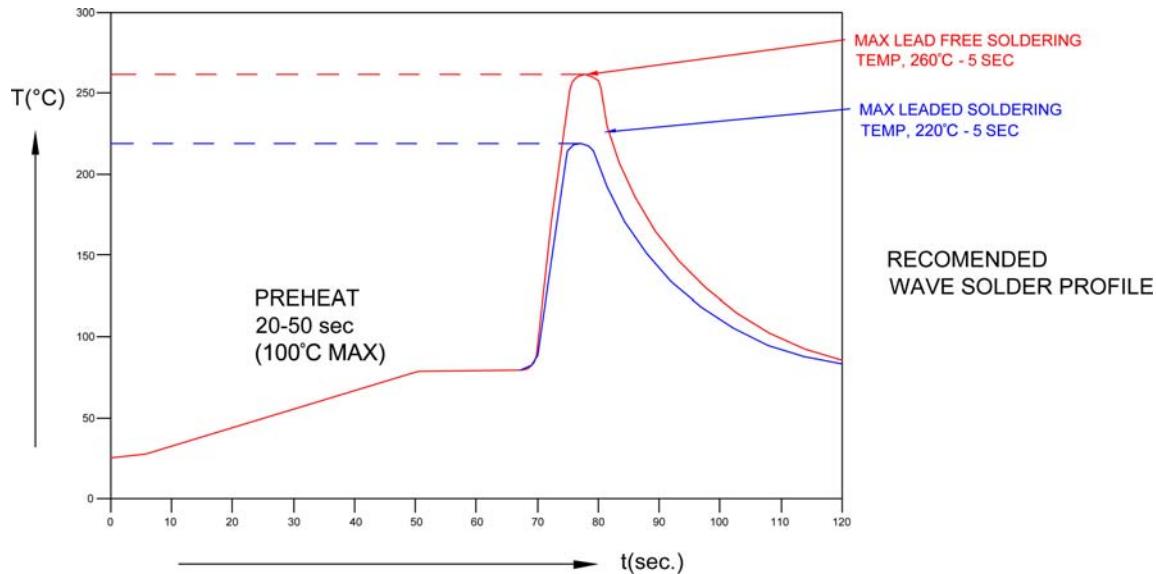
Fig. 3 Relative Luminous Intensity vs. Temperature

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## Recommended Soldering Conditions

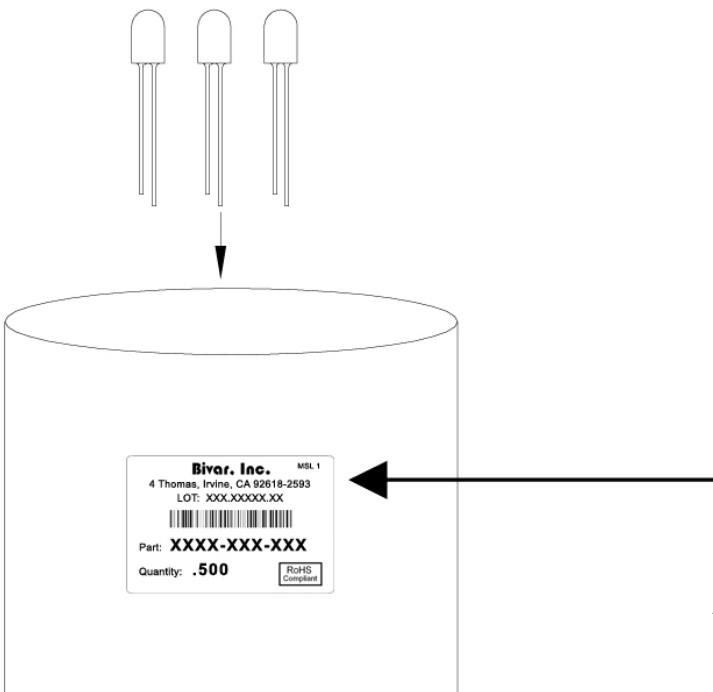


### Recommended Lead Free Wave Soldering Profile

|                                 |                                         |
|---------------------------------|-----------------------------------------|
| 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



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

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