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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 5mm (T1 ¾) Package Discrete LED BLUE, 12V

# BIVAR

## 5BWC12V-X

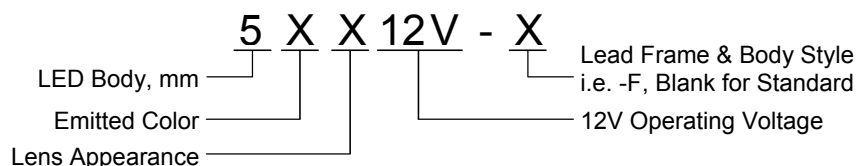
- ◆ Industry Standard 5mm (T1 ¾) Package
- ◆ RoHS Compliant
- ◆ Water Clear (C)
- ◆ Available in Flange (F) and Standard (Blank) Lead Frame styles
- ◆ 12V Operating Voltage
- ◆ Ideal for Status Indication and Display



Bivar 5mm T1 ¾ 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. 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
5BWC12V-F	GaN/SiC	BLUE	430nm	Water Clear	25°
5BWC12V				Water Clear	20°

## Part Number Designation

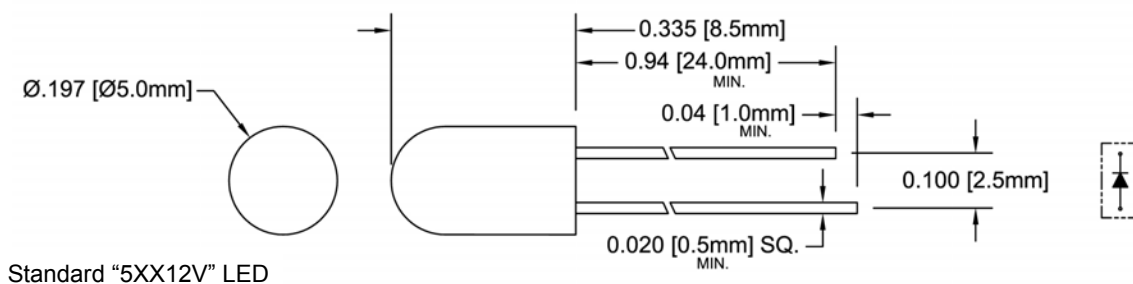
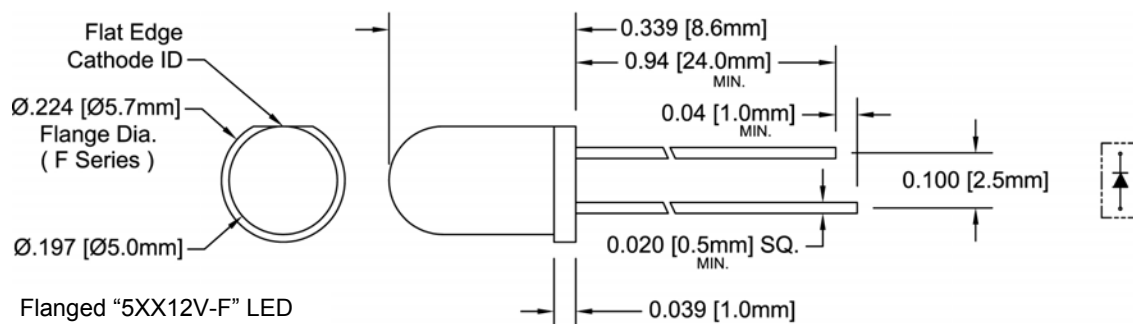


Bivar reserves the right to make changes at any time without notice.

# 5mm (T1 ¾) Package Discrete LED BLUE, 12V



## Outline Dimensions



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

**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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# 5mm (T1 ¾) Package Discrete LED BLUE, 12V



## 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 I <sub>v</sub> (mcd)			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
5BWC12V-F	/	/	12	/	/	/	100	/	/	/	/	30	/	25
5BWC12V	/	/	12	/	/	/	100	/	/	/	/	30	/	20

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

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



## Typical Electrical / Optical Characteristics

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

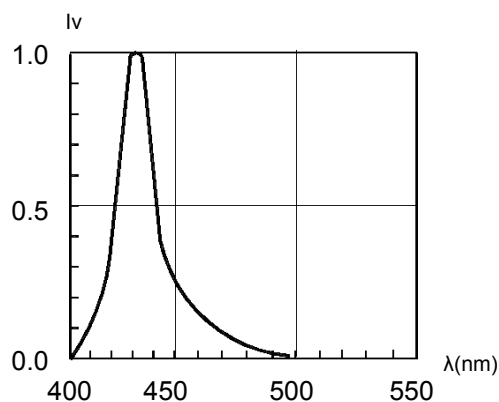


Fig. 1 Relative Luminous Intensity vs. Wavelength

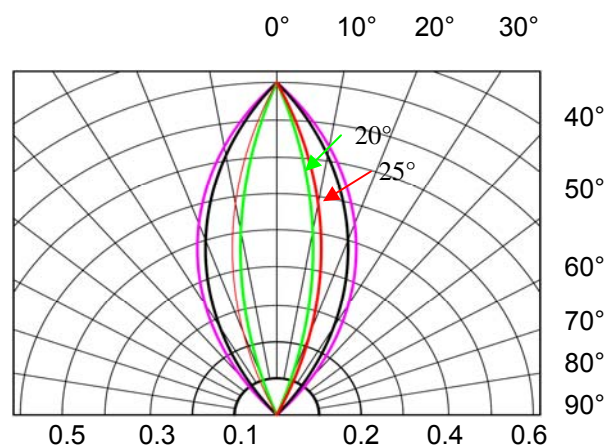


Fig. 2 Directivity Radiation Diagram

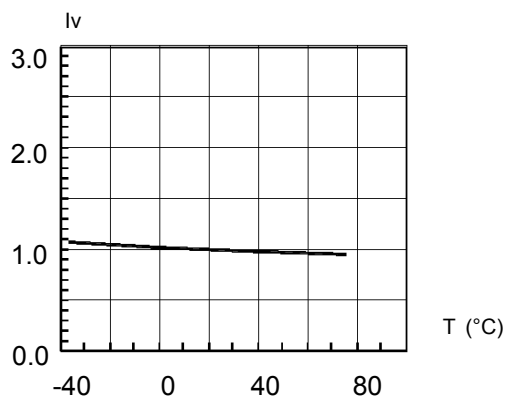


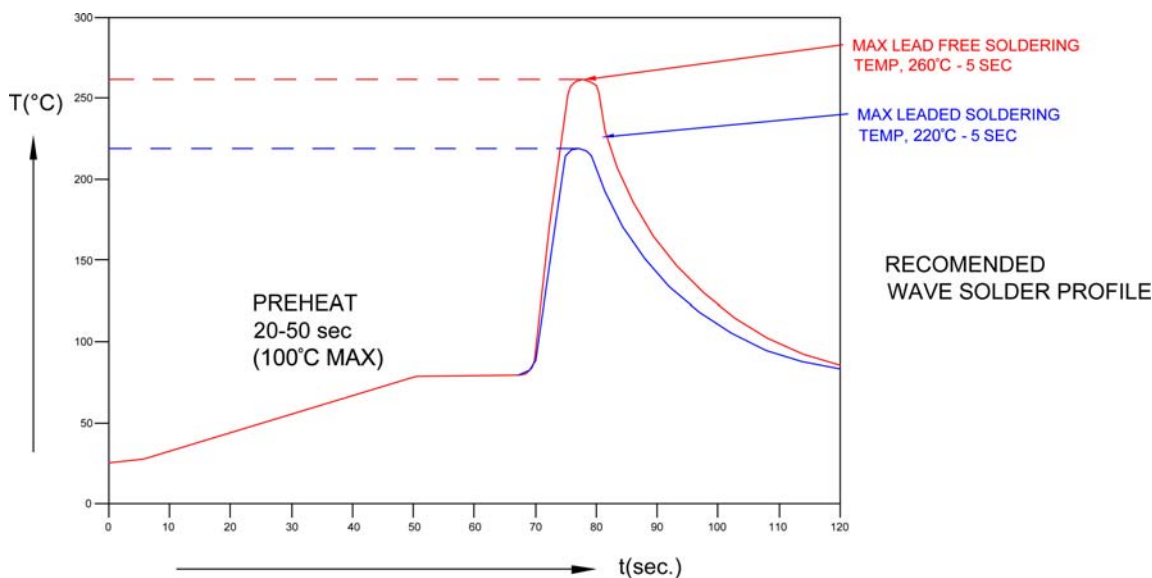
Fig. 3 Relative Luminous Intensity vs. Temperature

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

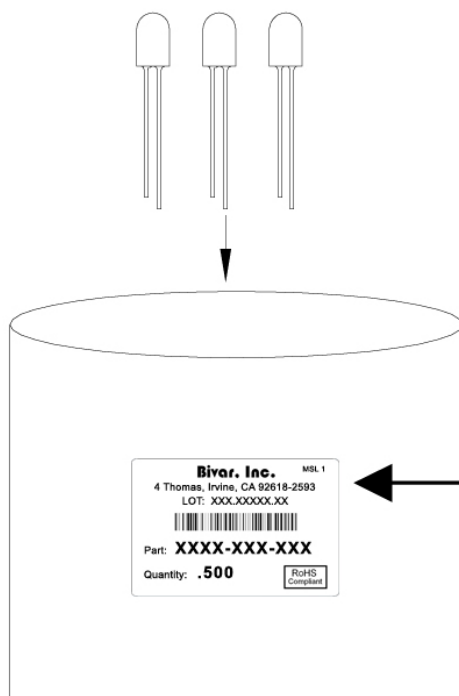


## Recommended Soldering Conditions



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



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

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

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