

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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!



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

#### 5UTC-X

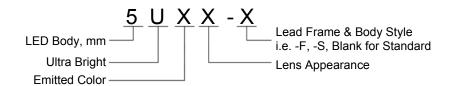
- ♦ Industry Standard 5mm (T1 ¾) Package
- RoHS Compliant
- ♦ Water Clear Lens
- ◆ Available in Flange (F) and Standard (Blank) Lead Frame styles
- Up to 600 mcd Luminous Intensity at 20 mA
- Ideal for Back Lighting, Status Indication, and Display



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 λp(nm) TYP.	Lens Appearance	Viewing Angle	
5UTC-F	GaN/SiC	TURQUOISE	500nm	Water Clear	35°	
5UTC			50011111	Water Clear	20°	

#### **Part Number Designation**





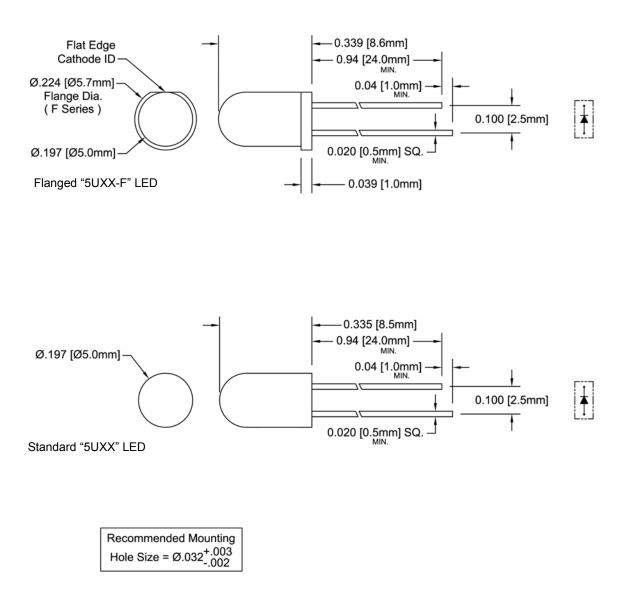




### 5mm (T1 ¾) Package Discrete LED TURQUOISÉ, Ultra Bright



#### **Outline Dimensions**



Outline Drawings Notes:

1. All dimensions are in inches [millimeters].

2. Standard tolerance: ±0.010" unless otherwise noted.

3. Tolerance of overall epoxy outline: ±0.020" unless otherwise noted.

4. Epoxy meniscus may extend to 0.060" max.

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



#### **Absolute Maximum Ratings**

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

Power Dissipation	70 mW
Forward Current ( DC )	30 mA
Peak Forward Current <sup>1</sup>	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**

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

Part Number		orwai Itage	- 4	F	comm orwai rent (	rd	Reverse Current (µA)	Dominant Wavelength (nm) <sup>2</sup>		Luminous Intensity Iv (mcd)			Viewing Angle 2 Θ ½ (deg)	
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
5UTC-F	,	/ 2.5	4.0 /	,	20	,	100	1	1	1	1	500	/	35
5UTC	/ 3.5	4.0 /	/	7 20	,	100	/	1	1	1	600	/	20	

Notes: 1. Tolerance of forward voltage: ±0.05V.

2. Tolerance of dominant wavelength: ±1.0nm.

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



### **Typical Electrical / Optical Characteristics**

 $T_A = 25$ °C unless otherwise noted

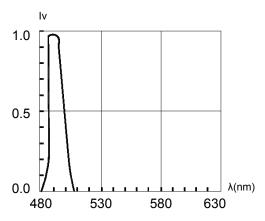


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

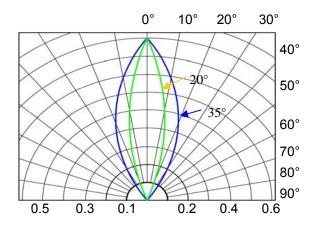


Fig. 2 Directivity Radiation Diagram

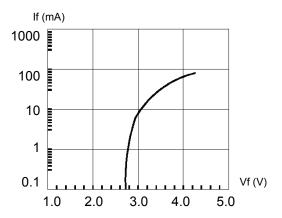


Fig. 3 Forward Current vs. Forward Voltage

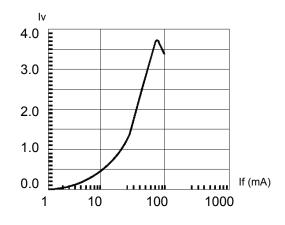


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

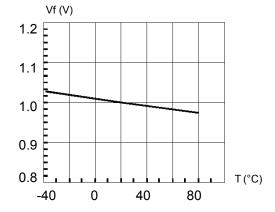


Fig. 5 Forward Voltage vs. Temperature

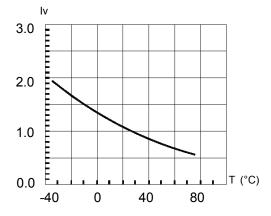
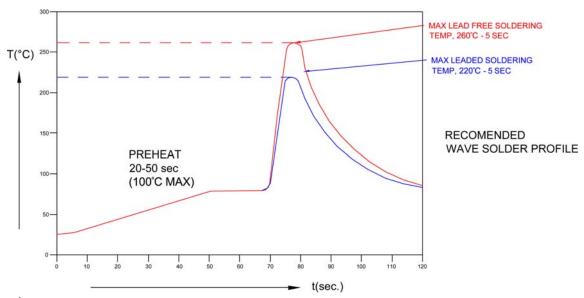


Fig. 6 Relative Luminous Intensity vs. Temperature

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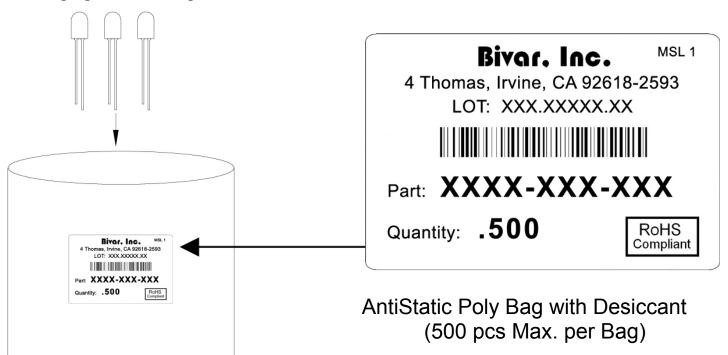


#### **Recommended Soldering Conditions**



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 reserves the right to make changes at any time without notice