



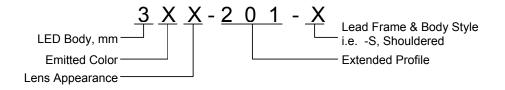
### 3AX-201-X

- ♦ Industry Standard 3mm (T1) Package
- **♦** RoHS Compliant
- Water Clear (C), Diffused (D), and Tinted (T) Lenses
- ♦ Available in a Shouldered (S) Lead Frame Style
- ♦ Ideal for Status Indication and Display

Bivar 3mm T1 Package Extended Profile LED may be used in almost any application and provides additional protrusion for those applications with thicker face plates. Bivar offers water clear LED lens for maximum light output, diffused LED lens for uniform light output, and tinted lens to identify the color of the LED. The Shouldered Lead frame LED is ideal for vertical spacer assemblies without lead bends and also has a built in strain relief feature which is ideal for right angle holder assemblies that require lead bends.

Part Number	Material	Emitted Color	Peak. Wavelength λρ(nm) TYP.	Lens Appearance	Viewing Angle	
3AC-201-S				Water Clear	20°	
3AD-201-S	GaAsP/Gap	AMBER	605nm	Amber Diffused	35°	
3AT-201-S	3AT-201-S			Amber Tinted	20°	

### **Part Number Designation**



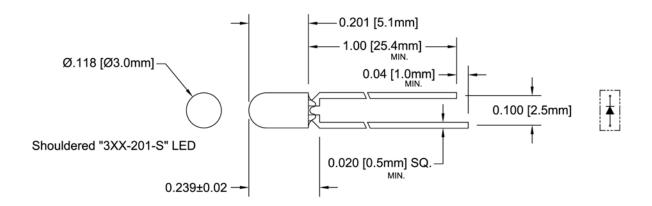








### **Outline Dimensions**



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

#### **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.



### **Absolute Maximum Ratings**

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

Power Dissipation	80 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.

### **Electrical / Optical Characteristics**

 $T_A = 25^{\circ}C \& I_F = 20 \text{ mA}$  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 ½ (deg)					
	·	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
3AC-2	201-S								1	1	1	1	40	/	20
3AD-2	201-S	/	2.0	2.8	/	20	/	100	1	1	1	1	25	/	35
3AT-2	201-S								/	/	/	/	40	/	20

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

2. Tolerance of dominant wavelength: ±1.0nm.

<sup>2.</sup> Solder time less than 5 seconds at temperature extreme.



## **Typical Electrical / Optical Characteristics**

 $T_A = 25$ °C unless otherwise noted

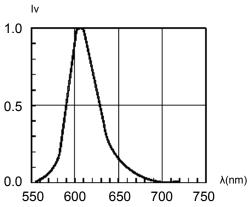


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

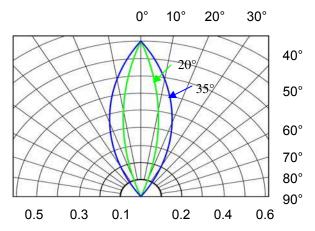


Fig. 2 Directivity Radiation Diagram

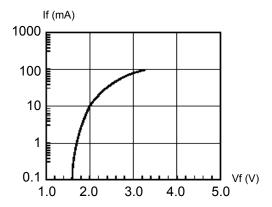


Fig. 3 Forward Current vs. Forward Voltage

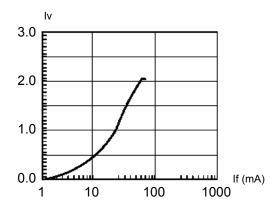


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

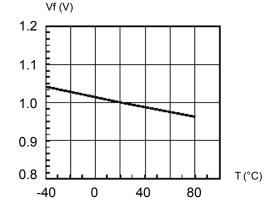


Fig. 5 Forward Voltage vs. Temperature

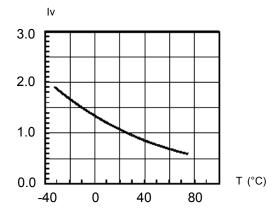
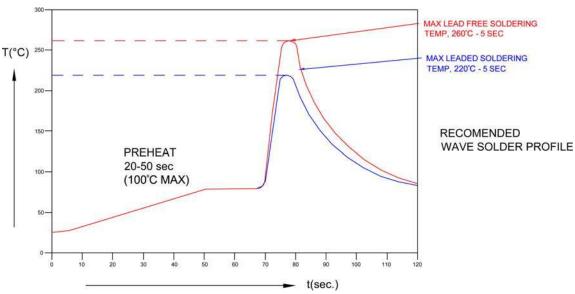


Fig. 6 Relative Luminous Intensity vs. Temperature

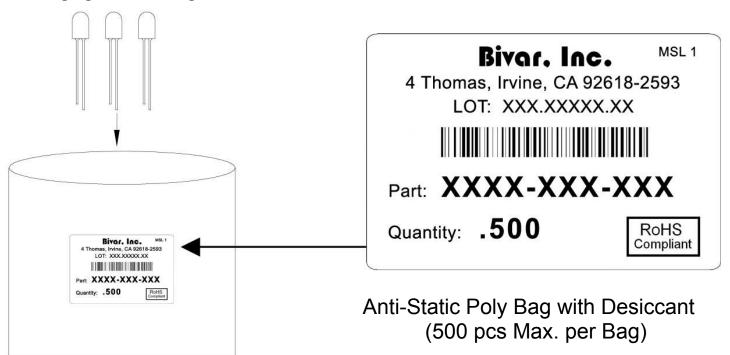


#### **Recommended Soldering Conditions**



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