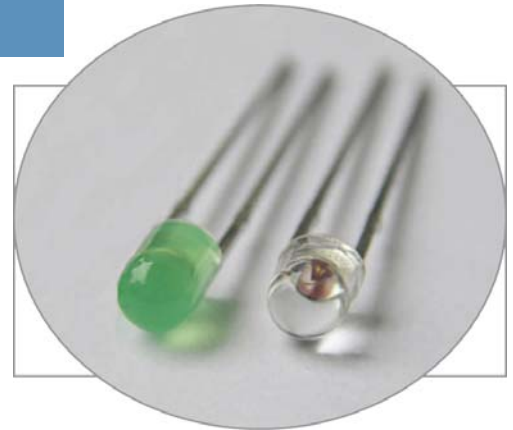


# 3mm (T1) Package Discrete LED SUPER GREEN, Extended Profile

# BIVAR

## 3SGX-201-X

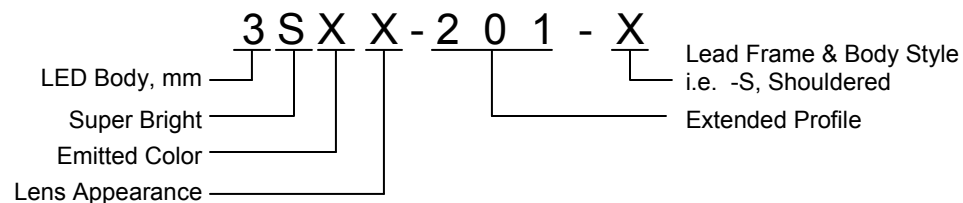
- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ Water Clear (C) and Diffused (D) Lenses
- ◆ Available in a Shouldered (S) Lead Frame Style
- ◆ Up to 50 mcd Luminous Intensity at 20 mA
- ◆ Ideal for Status Indication and Display



Bivar 3mm T1 Package Extended Profile LED may be used in higher ambient lighting applications and provides additional protrusion for those applications with thicker face plates. Bivar offers water clear LED lens for maximum light output and diffused LED lens for uniform light output. 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 $\lambda_p$ (nm) TYP.	Lens Appearance	Viewing Angle
3SGC-201-S	GaP/GaP	GREEN	568nm	Water Clear	20°
3SGD-201-S				Green Diffused	35°

## Part Number Designation

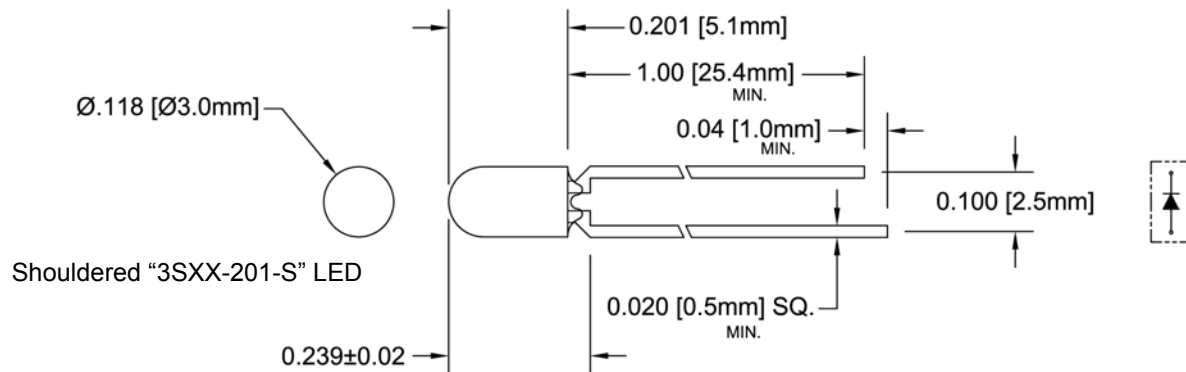


Bivar reserves the right to make changes at any time without notice.

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## Outline Dimensions



Shouldered "3SXX-201-S" LED

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

### 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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# 3mm (T1) Package Discrete LED SUPER GREEN, Extended Profile



## Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$  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 ) <sup>2</sup>	260°C

Notes: 1. 10% Duty Cycle, Pulse Width  $\leq$  0.1 msec.    2. Solder time less than 5 seconds at temperature extreme.

## Electrical / Optical Characteristics

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

Part Number	Forward Voltage (V) <sup>1</sup>			Recommend Forward Current (mA)			Reverse Current ( $\mu\text{A}$ )	Dominant Wavelength (nm) <sup>2</sup>			Luminous Intensity $I_v$ (mcd)			Viewing Angle $2\theta_{1/2}$ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
3SGC-201-S	/	2.1	2.8	/	20	/	100	/	/	/	/	50	/	20
3SGD-201-S	/	2.1	2.8	/	20	/	100	/	/	/	/	30	/	35

Notes: 1. Tolerance of forward voltage :  $\pm 0.05\text{V}$ .    2. Tolerance of dominant wavelength :  $\pm 1.0\text{nm}$ .

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## Typical Electrical / Optical Characteristics

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

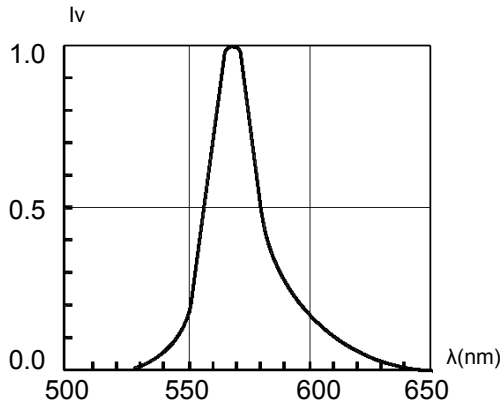


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

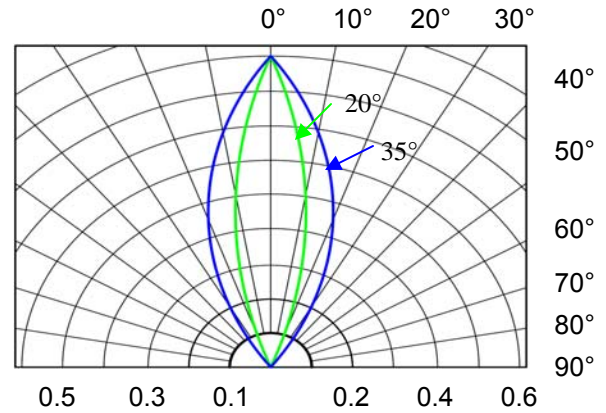


Fig. 2 Directivity Radiation Diagram

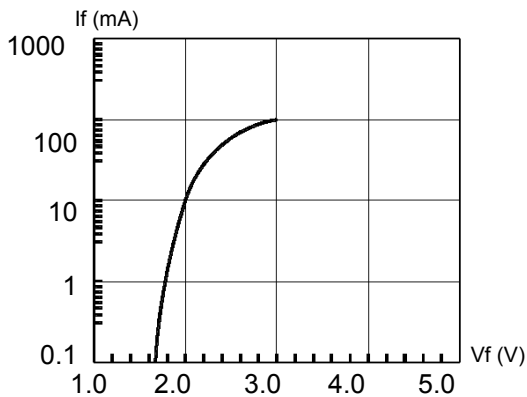


Fig. 3 Forward Current vs. Forward Voltage

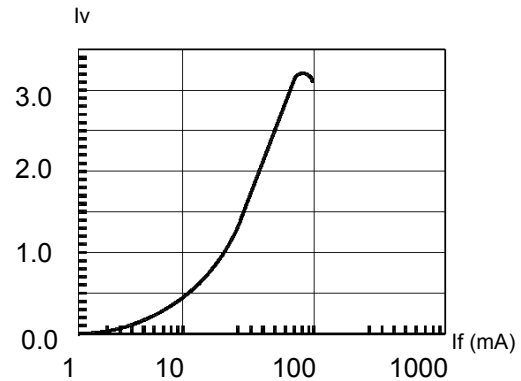


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

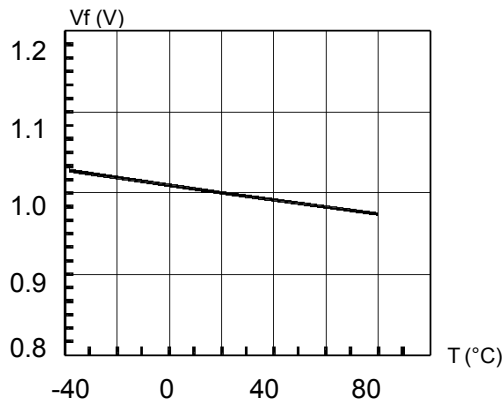


Fig. 5 Forward Voltage vs. Temperature

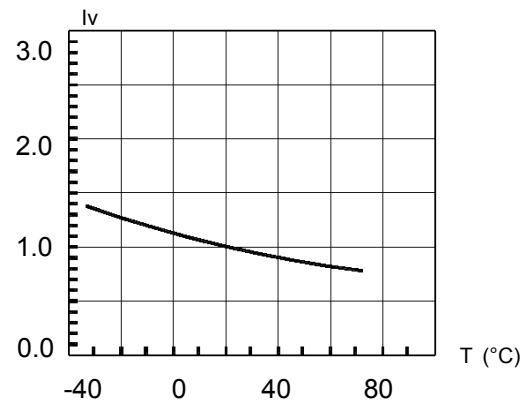


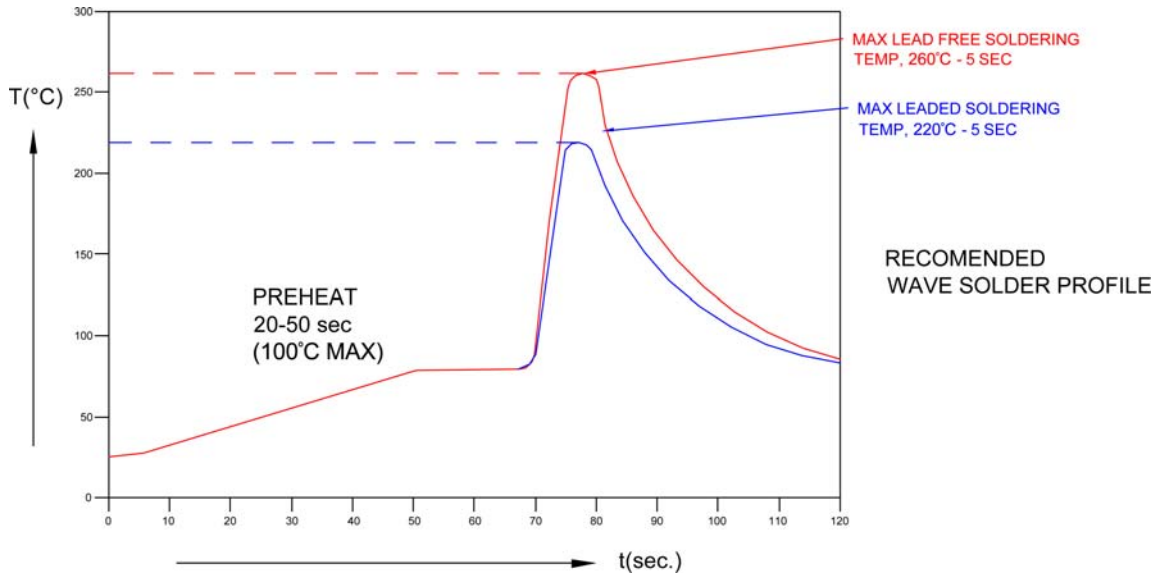
Fig. 6 Relative Luminous Intensity vs. Temperature

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# 3mm (T1) Package Discrete LED SUPER GREEN, Extended Profile

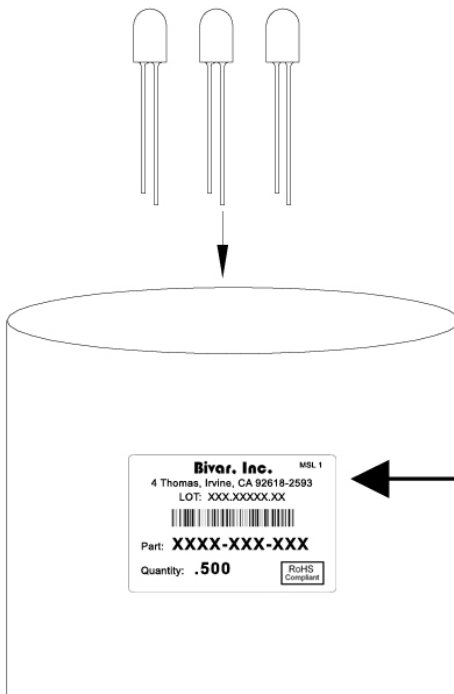


## Recommended Soldering Conditions



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

Anti-Static Poly Bag with Desiccant  
(500 pcs Max. per Bag)

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