3mm (T1) Package Discrete LED GREEN, Low Current

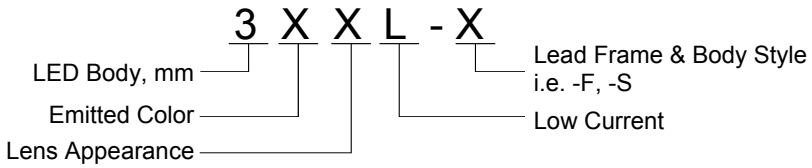
3GDL-X

- **Industry Standard 3mm (T1) Package**
- **RoHS Compliant**
- **Diffused Lens**
- **Available in Flange (F) and Shouldered (S) Lead Frame Style**
- **2 mA Low Operating Current**
- **Ideal for Status Indication and Display**

Bivar 3mm T1 Package 2 mA Low Current LED is special binned at 2 mA and is ideal for those applications where lower power budget is required such as solar panel or battery-powered portable devices. Bivar offers diffused LED lens for uniform light output. The Flanged LED is ideal for Panel Mount Clip & Ring assemblies. 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 λp(nm) TYP.	Lens Appearance	Viewing Angle
3GDL-F	GaP/GaP	GREEN	568nm	Green Diffused	35°
3GDL-S				Green Diffused	40°

Part Number Designation



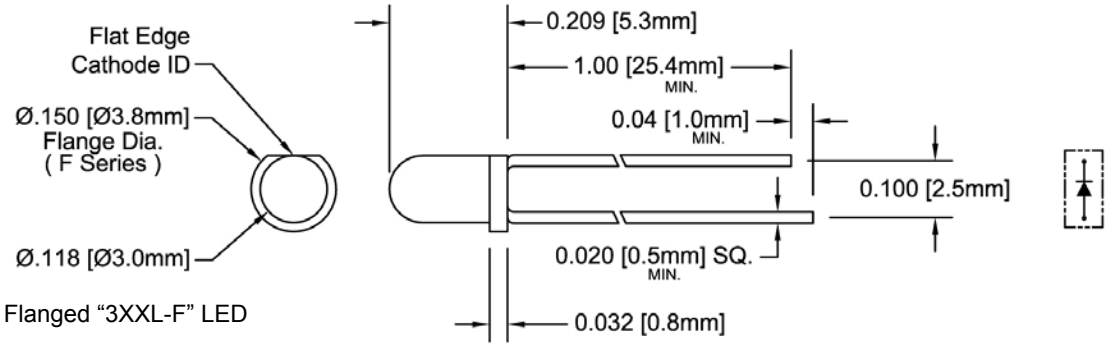
ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

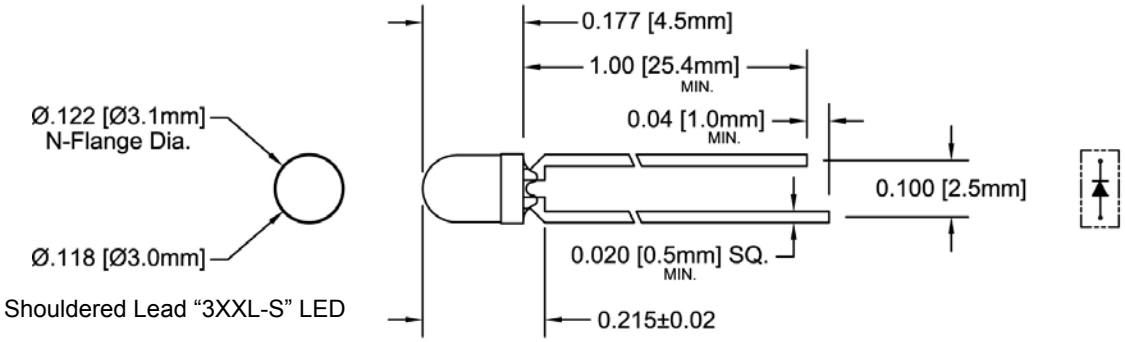
Moisture Sensitivity Levels 1

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

Outline Dimensions



Flanged “3XXL-F” LED



Shouldered Lead “3XXL-S” LED

Recommended Mounting
Hole Size = Ø.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.

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Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	10 mW
Forward Current (DC)	7 mA
Peak Forward Current [1]	/ 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°C & I_F = 2 mA unless otherwise noted

Part Number	Forward Voltage (V)[1]			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm)[2]			Luminous Intensity Iv (mcd)			Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
3GDL-F	/	2.1	2.6	/	2	/	100	/	/	/	/	4	/	35
3GDL-S								/	/	/	/	2	/	40

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°C unless otherwise noted

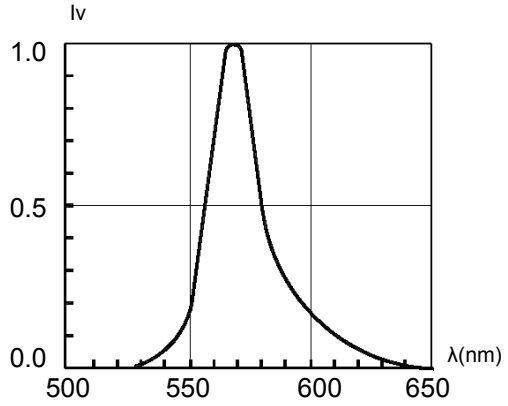

Fig. 1 Relative Luminous Intensity vs. Wavelength

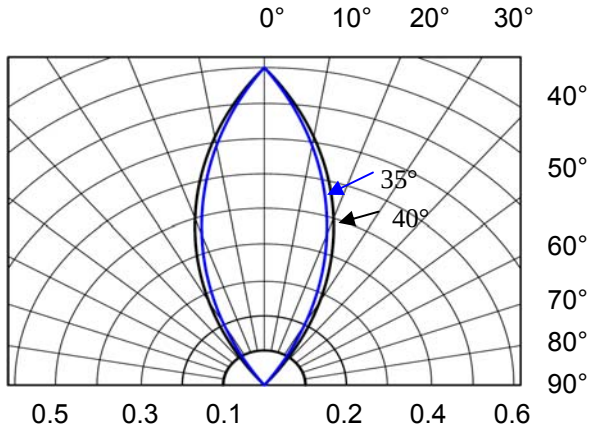

Fig. 2 Directivity Radiation Diagram

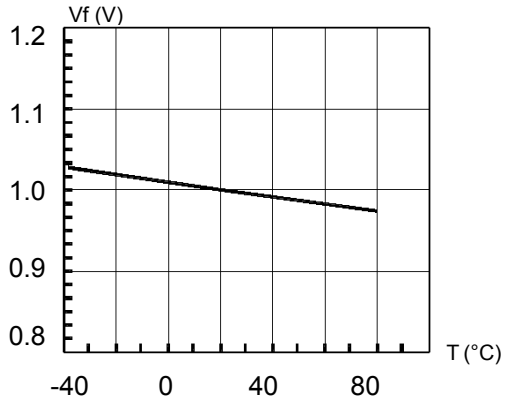

Fig. 3 Forward Voltage vs. Temperature

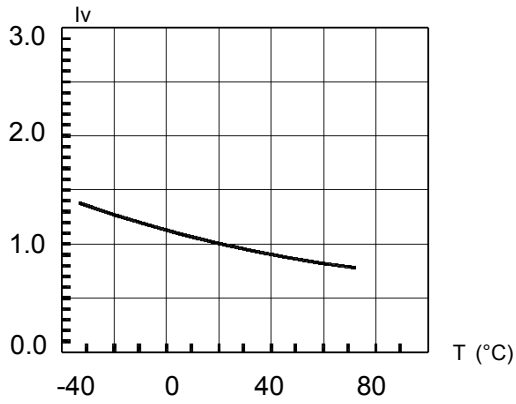

Fig. 4 Relative Luminous Intensity vs. Temperature

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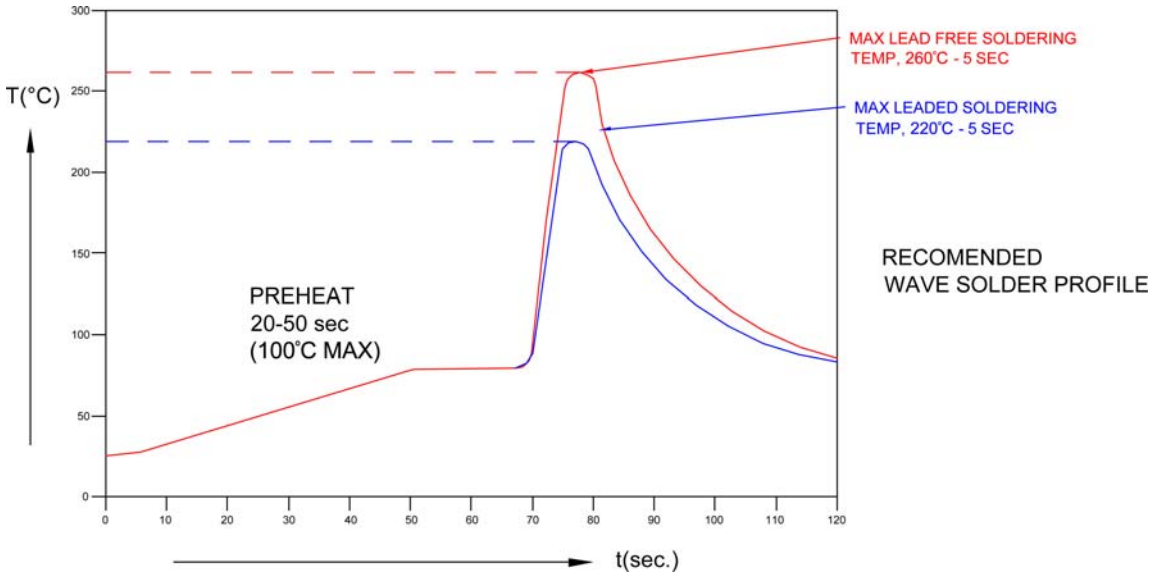
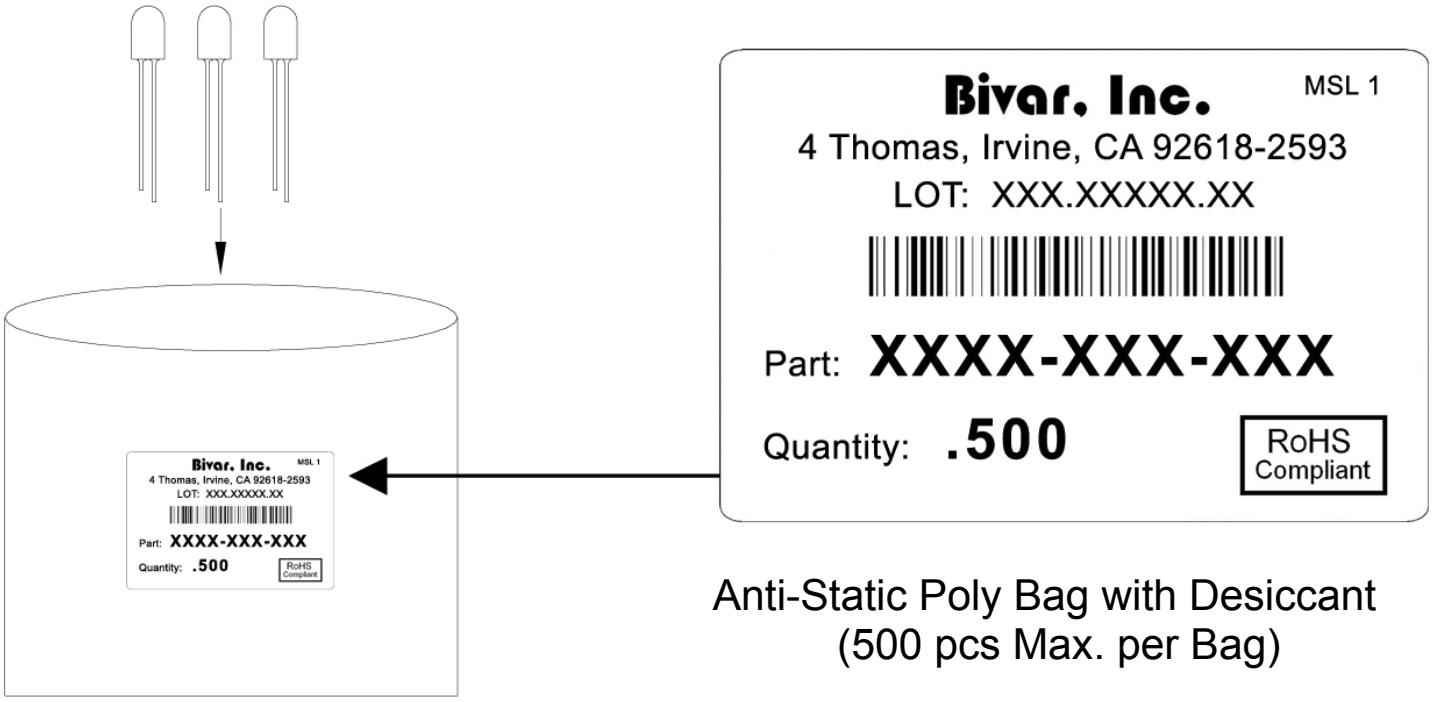
Recommended Soldering Conditions



Recommended Lead Free Wave Soldering Profile	
Preheat Temperature: 100ºC Max.	Peak Temperature: 260ºC Max.
Preheat Time: 20 ~ 50 Seconds	Solder Time Above 217ºC: 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



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