3mm (T1) Package Discrete LED YELLOW, Super Bright

BIVAR

3SYX-X

- **Industry Standard 3mm (T1) Package**
- **RoHS Compliant**
- **Water Clear (C), Diffused (D), and Tinted (T) Lenses**
- **Available in Flange (F), Standard (Blank), and Shouldered (S) Lead frame styles**
- **Up to 50 mcd Luminous Intensity at 20 mA**
- **Ideal for Status Indication and Display**
- **Recommended for Bivar Flexible Light Pipe assemblies**

Bivar 3mm T1 Package Super Bright LED is ideal for those applications where higher ambient lighting exists such as sign boards, security system displays, and medical applications. 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 Flanged LED is ideal for Panel Mount Clip & Ring assemblies, the Standard Lead frame LED is ideal for vertical spacer assemblies without lead bends, and the Shouldered Lead frame LED has a built in strain relief feature which is ideal for Right Angle Holder assemblies that require lead bends. A long lead version is also available with a "-LL" suffix added to part numbers.

Part Number	Material	Emitted Color	Peak. Wavelength λp(nm) TYP.	Lens Appearance	Viewing Angle
3SYC-F	GaAsP/Gap	YELLOW	590nm	Water Clear	20°
3SYD-F				Yellow Diffused	35°
3SYT-F				Yellow Tinted	20°
3SYC				Water Clear	30°
3SYD				Yellow Diffused	40°
3SYT				Yellow Tinted	30°
3SYC-S				Water Clear	30°
3SYD-S				Yellow Diffused	40°
3SYT-S				Yellow Tinted	30°

Part Number Designation

3 S X X - X

- 3 — LED Body, mm
- S — Super Bright
- X — Emitted Color
- X — Lens Appearance
- X — Lead Frame & Body Style i.e. -F, -S, Blank for Standard

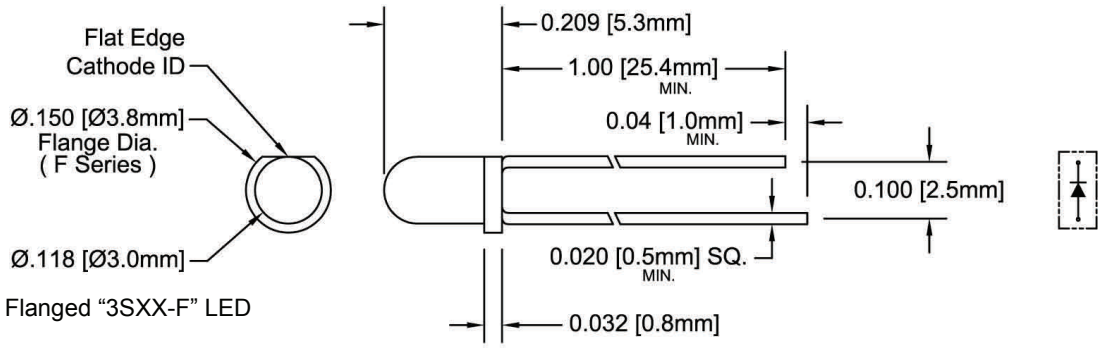
ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

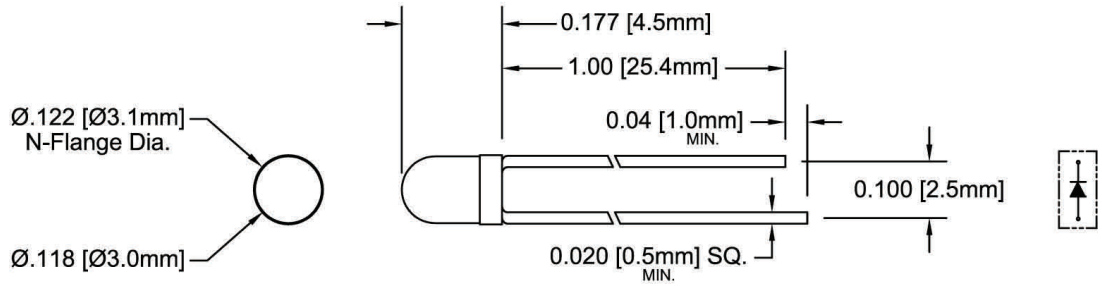
Moisture Sensitivity Levels 1

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

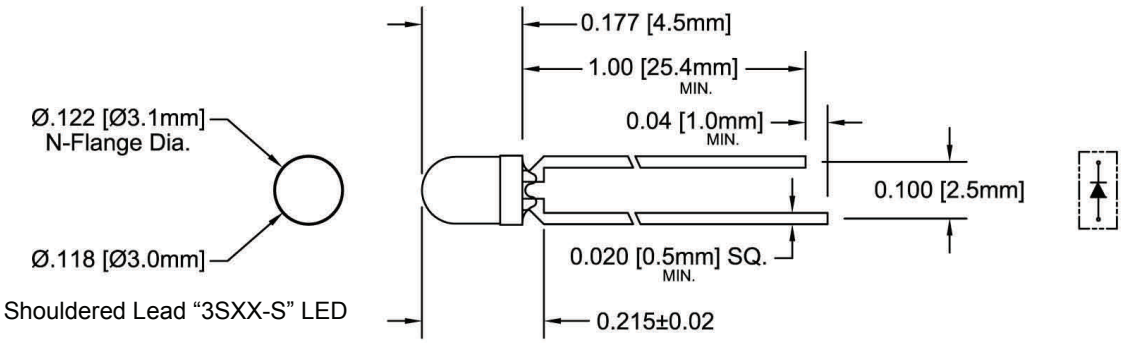
Outline Dimensions



Flanged "3SXX-F" LED



Standard "3SXX" LED



Shouldered Lead "3SXX-S" LED

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

NOTE: Add suffix -LL for long lead.
Changes 1.00 Min. to 1.57 Min.
Standard Lead Only

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	85 mW
Forward Current (DC)	30 mA
Peak Forward Current [1]	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°C & I_F = 20 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
3SYC-F	/	2.0	2.8	/	20	/	100	/	/	/	/	50	/	20
3SYD-F								/	/	/	/	30	/	35
3SYT-F								/	/	/	/	50	/	20
3SYC	/	2.0	2.8	/	20	/	100	/	/	/	/	50	/	30
3SYD								/	/	/	/	30	/	40
3SYT								/	/	/	/	50	/	30
3SYC-S	/	2.0	2.8	/	20	/	100	/	/	/	/	50	/	30
3SYD-S								/	/	/	/	30	/	40
3SYT-S								/	/	/	/	50	/	30

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

Typical Electrical / Optical Characteristics

T_A = 25°C unless otherwise noted

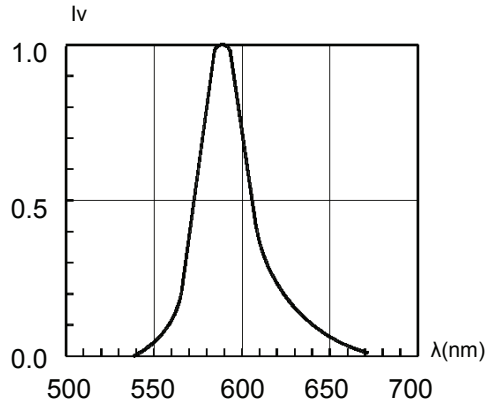


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

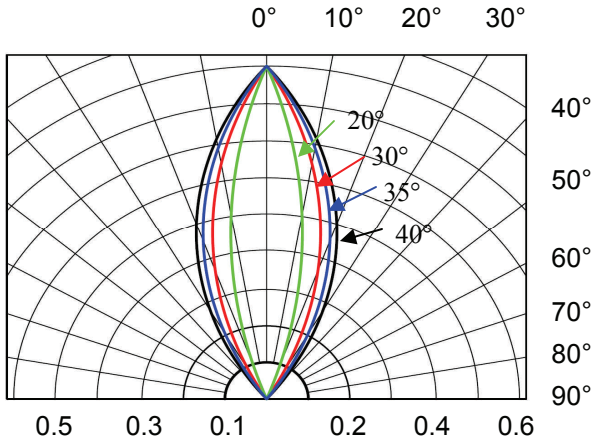


Fig. 2 Directivity Radiation Diagram

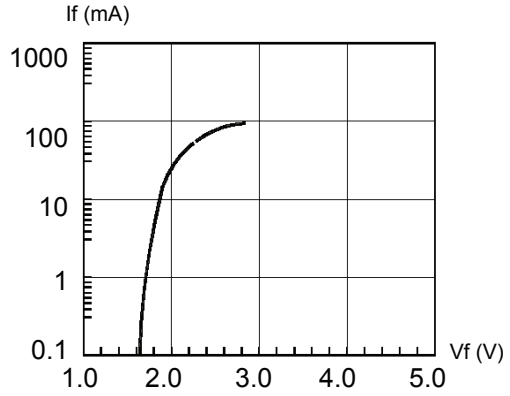


Fig. 3 Forward Current vs. Forward Voltage

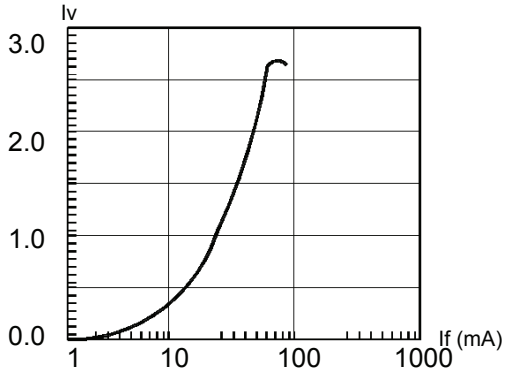


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

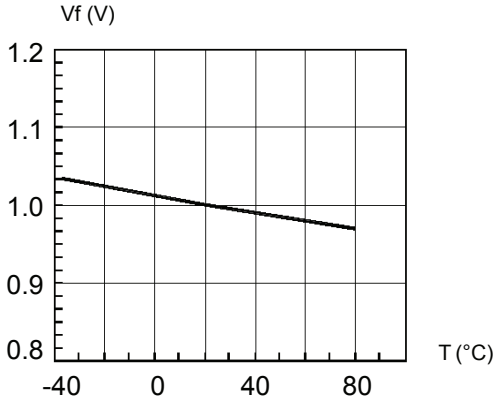


Fig. 5 Forward Voltage vs. Temperature

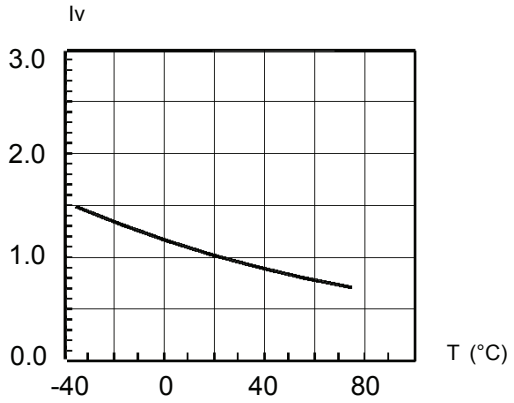
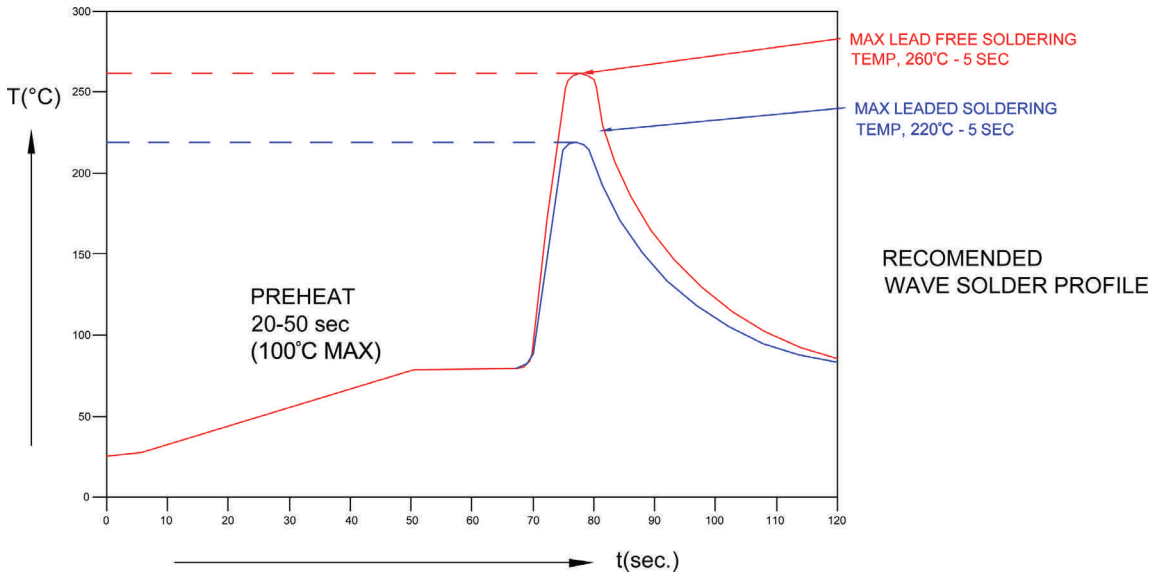


Fig. 6 Relative Luminous Intensity vs. Temperature

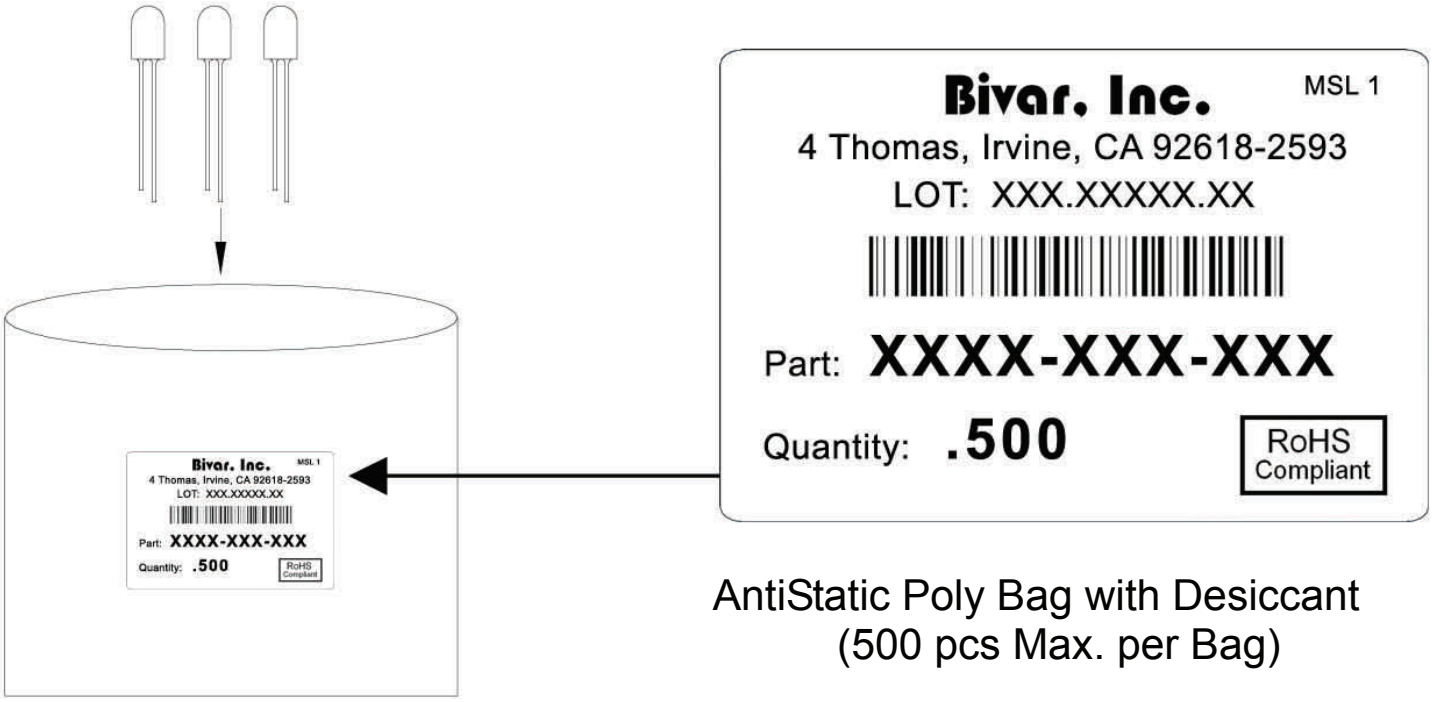
Bivar reserves the right to make changes at any time without notice.

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



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

Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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