3mm (T1) Package Discrete LED AMBER/GREEN, Bi-Color

BIVAR

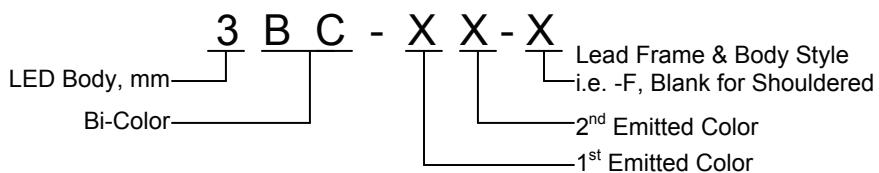## 3BC-A/G-X

- ♦ **Industry Standard 3mm (T1) Package**
- ♦ **RoHS Compliant**
- ♦ **White Diffused Lens**
- ♦ **Available in Flange (F) and Shouldered (Blank) Lead Frame styles**
- ♦ **2-Lead Bi-Color LED**
- ♦ **Ideal for Status Indication and Display**

Bivar 3mm T1 Package 2-Lead Bi-Color LED is ideal for those applications where dual signals need to be displayed at the same location such as standby-on indication for server or computer peripherals. Bivar offers white diffused LED lens for uniform light output and the 2-lead package simplifies the circuitry design where a reverse voltage is available. The Flanged LED is ideal for Panel Mount Clip & Ring assemblies 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 the part numbers.

Part Number	Material	Emitted Color	Peak. Wavelength λp(nm) TYP.	Lens Appearance	Viewing Angle
3BC-A/G-F	GaAsP/GaP	AMBER	605nm	White Diffused	45°
	GaP/GaP	GREEN	568nm		
3BC-A/G	GaAsP/GaP	AMBER	605nm		
	GaP/GaP	GREEN	568nm		

Part Number Designation

3 B C - X X - X

LED Body, mm

Bi-Color

1st Emitted Color

2nd Emitted Color

Lead Frame & Body Style
i.e. -F, Blank for Shouldered

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

RoHS Compliant

Moisture Sensitivity Levels 1

Bivar, Inc. — 4 Thomas, Irvine, California 92618, U.S.A.
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Outline Dimensions

Flat Edge
Cathode ID

Ø.150 [Ø3.8mm]
Flange Dia.
(F Series)

Ø.118 [Ø3.0mm]

Flanged " 3BC-XX-F" LED

0.209 [5.3mm]

1.00 [25.4mm] MIN.

0.04 [1.0mm] MIN.

(2)

(1)

0.100 [2.5mm]

0.020 [0.5mm] SQ. MIN.

0.032 [0.8mm]

Ø.122 [Ø3.1mm]
N-Flange Dia.

Ø.118 [Ø3.0mm]

Shouldered Lead "3BC-XX" LED

0.177 [4.5mm]

1.00 [25.4mm] MIN.

0.04 [1.0mm] MIN.

(2)

(1)

0.100 [2.5mm]

0.020 [0.5mm] SQ. MIN.

0.215±0.02

(1) Cathode	(2) Cathode
Green	Amber

Recommended Mounting

Hole Size = $Ø.032^{+.003}_{-.002}$

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

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_A = 25°C unless otherwise noted

Power Dissipation	80 mW
Forward Current (DC)	30 mA
Peak Forward Current [1]	150 mA
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	Emitted Color	Forward Voltage (V)[1]			Recommend Forward Current (mA)			Reverse Current (µA)	Dominant Wavelength (nm)[2]			Luminous Intensity Iv (mcd)			Viewing Angle 2 Ө ½ (deg)
		MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
3BC-A/G-F	Amber	/	2.0	2.8	/	20	/	/	/	/	/	/	6	/	45
	Green	/	2.1	2.8					/	/	/	/	6	/	
3BC-A/G	Amber	/	2.0	2.8	/	20	/	/	/	/	/	/	6	/	45
	Green	/	2.1	2.8					/	/	/	/	6	/	

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

Bivar, Inc. — 4 Thomas, Irvine, California 92618, U.S.A.
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Typical Electrical / Optical Characteristics
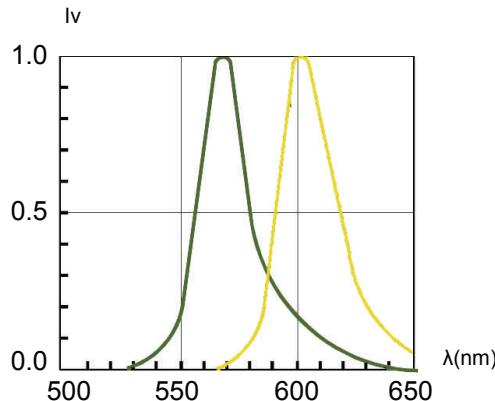
T_A = 25°C unless otherwise noted

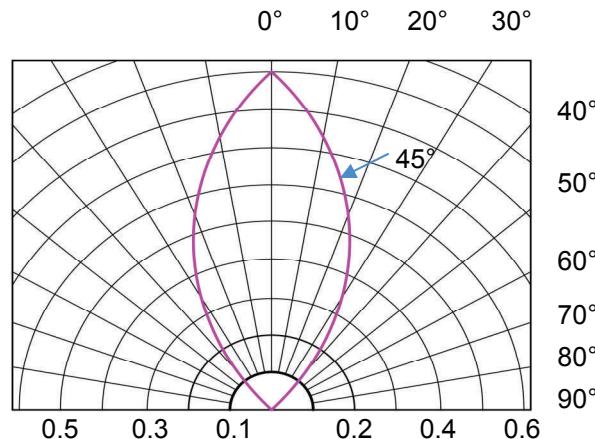Fig. 1 Relative Luminous Intensity vs. Wavelength
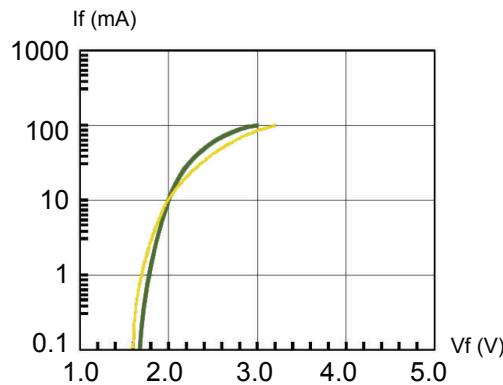@ 20mA

Fig. 2 Directivity Radiation Diagram

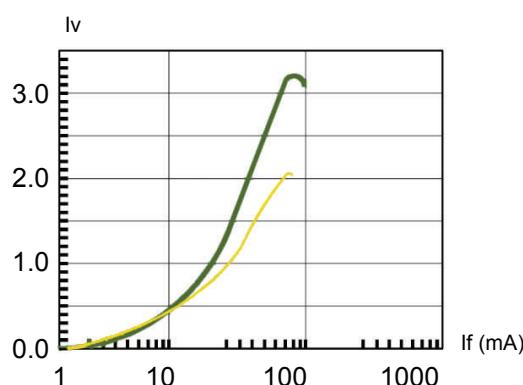Fig. 3 Forward Current vs. Forward Voltage

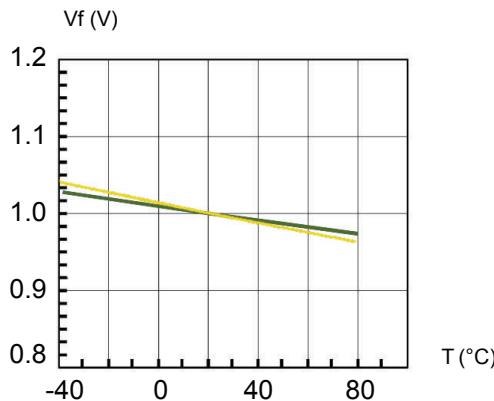Fig. 4 Relative Luminous Intensity vs. Forward Current
Normalize @ 20 mA
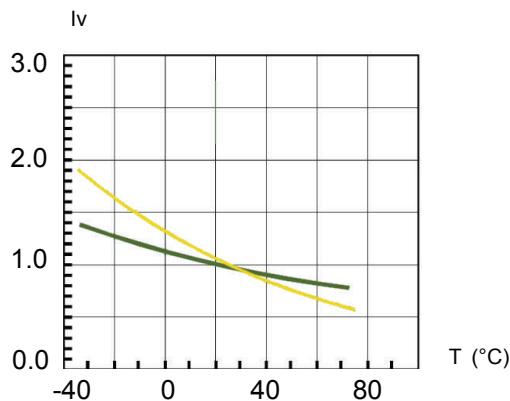
Fig. 5 Forward Voltage vs. Temperature

Fig. 6 Relative Luminous Intensity vs. Temperature
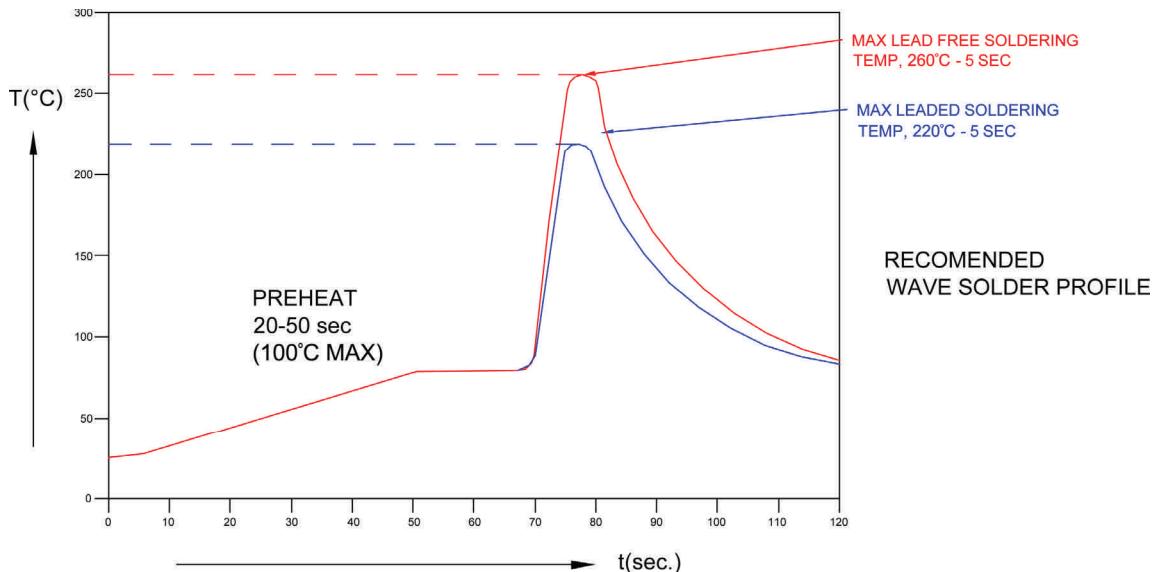
Recommended Soldering Conditions

MAX LEAD FREE SOLDERING
TEMP, 260℃ - 5 SEC

MAX LEADED SOLDERING
TEMP, 220℃ - 5 SEC

RECOMENDED
WAVE SOLDER PROFILE

PREHEAT
20-50 sec
(100℃ MAX)

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

Bivar. Inc.   MSL 1
4 Thomas, Irvine, CA 92618-2593
LOT: XXX.XXXXX.XX

Part: **XXXX-XXX-XXX**

Quantity: **.500**

RoHS Compliant

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

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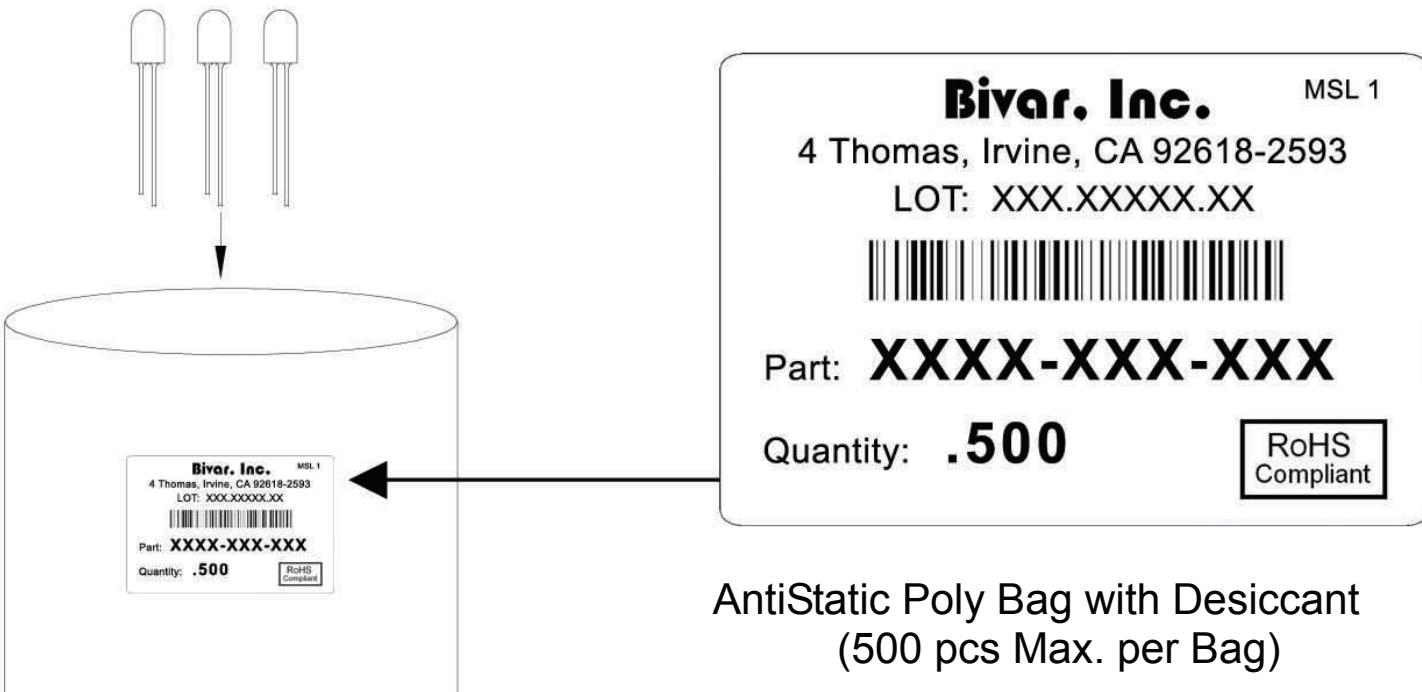
Mouser Electronics

Authorized Distributor

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