

3BC-R/Y Datasheet

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DiGi Electronics Part Number	3BC-R/Y-DG
Manufacturer	Bivar Inc.
Manufacturer Product Number	3BC-R/Y
Description	LED RED/YLW DIFFUSED T-1 T/H
Detailed Description	Red, Yellow LED Indication - Discrete 2V Red, 2V Yellow Radial

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Purchase and inquiry

Manufacturer Product Number:

3BC-R/Y

Series:

-

Color:

Red, Yellow

Lens Color:

White

Millicandela Rating:

6mcd Red, 4mcd Yellow

Lens Size:

3mm, T-1

Current - Test:

20mA Red, 20mA Yellow

Mounting Type:

Through Hole

Wavelength - Peak:

625nm Red, 590nm Yellow

Package / Case:

Radial

Size / Dimension:

-

Manufacturer:

Bivar Inc.

Product Status:

Obsolete

Configuration:

Bidirectional

Lens Transparency:

Diffused

Lens Style:

Round with Domed Top

Voltage - Forward (Vf) (Typ):

2V Red, 2V Yellow

Viewing Angle:

45°

Wavelength - Dominant:

-

Features:

-

Supplier Device Package:

T-1

Height (Max):

4.50mm

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.41.0000

ECCN:

EAR99



3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color



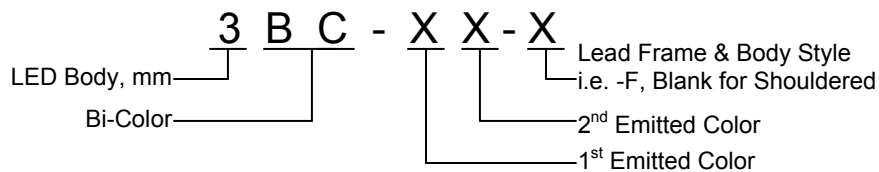
3BC-R/Y-X

- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ 2-Lead Bi-Color LED
- ◆ White Diffused Lens
- ◆ Available in Flange (F) and Shouldered (Blank) Lead Frame styles
- ◆ 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 λ_p (nm) TYP.	Lens Appearance	Viewing Angle
3BC-R/Y-F	GaAsP/GaP	RED	625nm	White Diffused	45°
	GaAsP/GaP	YELLOW	590nm		
3BC-R/Y	GaAsP/GaP	RED	625nm		
	GaAsP/GaP	YELLOW	590nm		

Part Number Designation

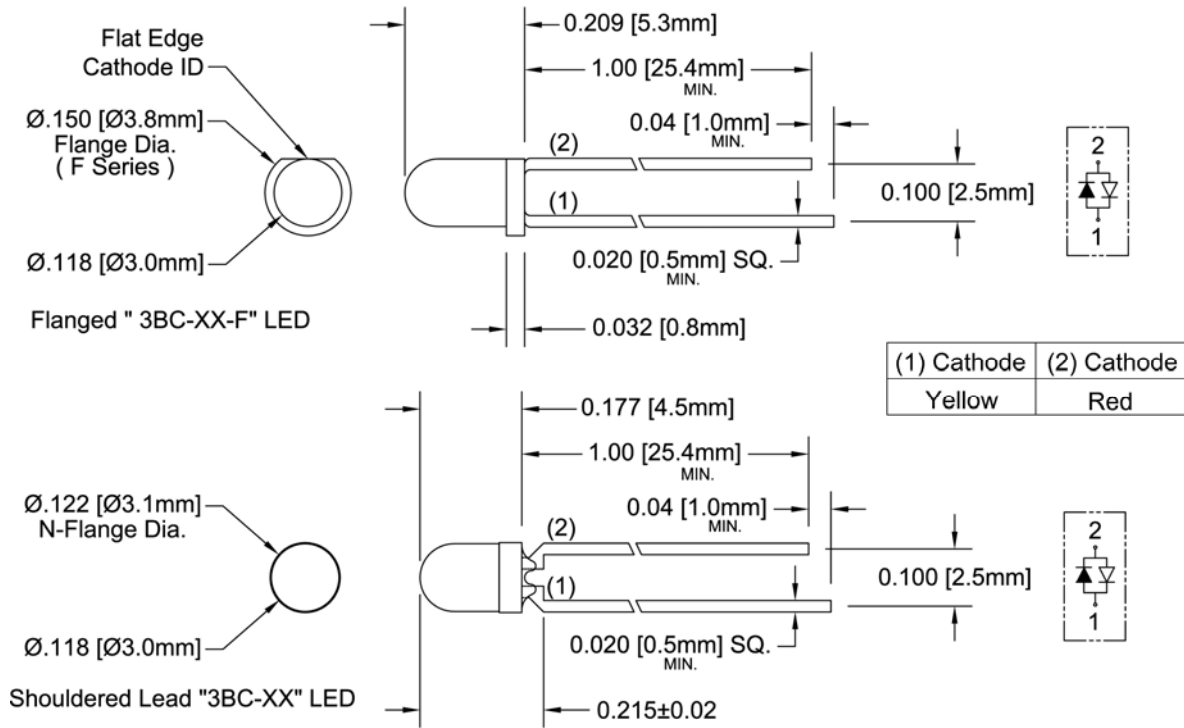


Bivar reserves the right to make changes at any time without notice.



3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color

Outline Dimensions



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

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.

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3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color



Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ 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 \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	Emitted Color	Forward Voltage (V) ¹			Recommend Forward Current (mA)			Reverse Current (μA)	Dominant Wavelength (nm) ²			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
3BC-R/Y-F	Red	/	2.0	2.8	/	20	/	/	/	/	/	/	6	/	45
	Yellow	/	2.0	2.8	/	20	/	/	/	/	/	/	4	/	
3BC-R/Y	Red	/	2.0	2.8	/	20	/	/	/	/	/	/	6	/	45
	Yellow	/	2.0	2.8	/	20	/	/	/	/	/	/	4	/	

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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3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color



Typical Electrical / Optical Characteristics - Red

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

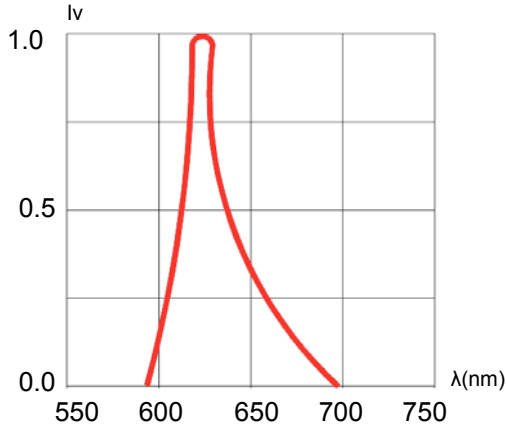


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

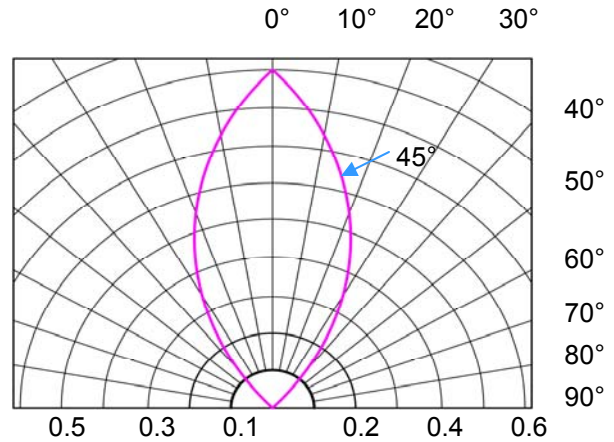


Fig. 2 Directivity Radiation Diagram

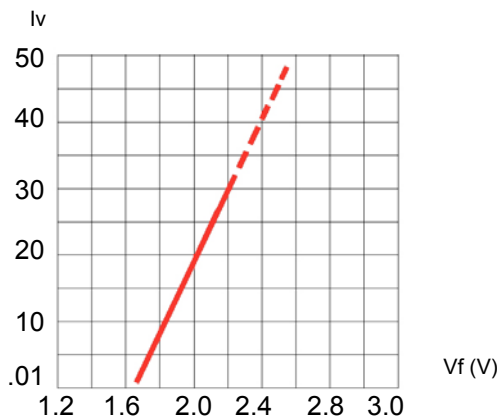


Fig. 3 Relative Intensity (10mA) vs. Forward Voltage

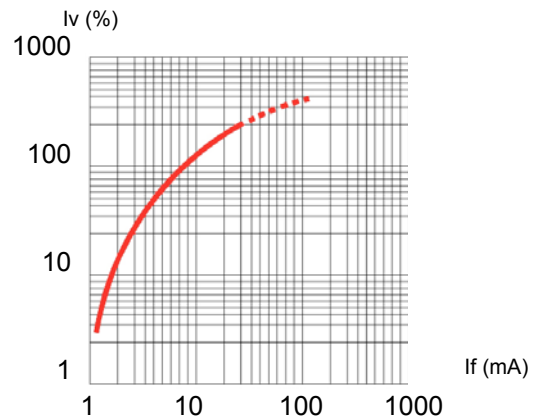


Fig. 4 Relative Luminous Intensity (%) vs. Forward Current

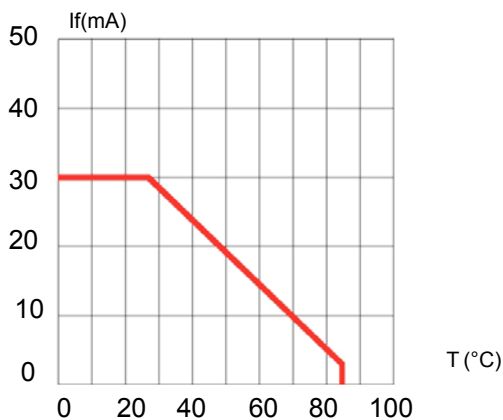


Fig. 5 Forward Current vs. Temperature

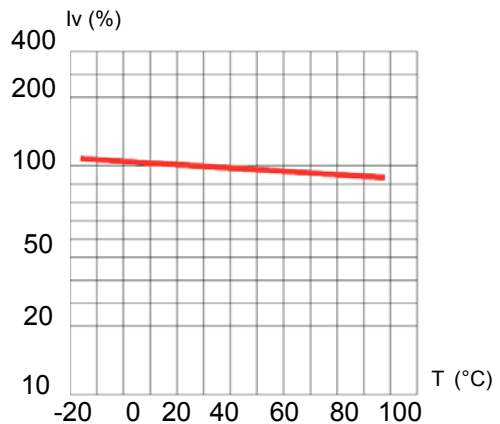


Fig. 6 Relative Intensity (%) vs. Temperature @ 20 mA

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3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color



Typical Electrical / Optical Characteristics - Yellow

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

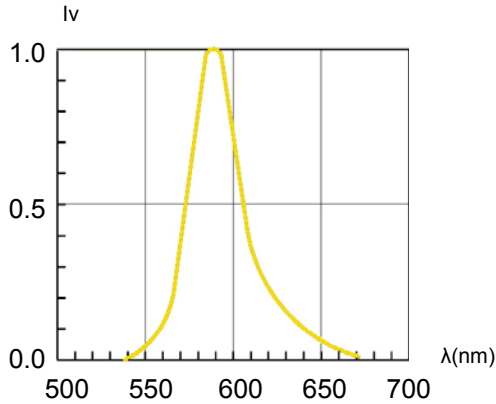


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

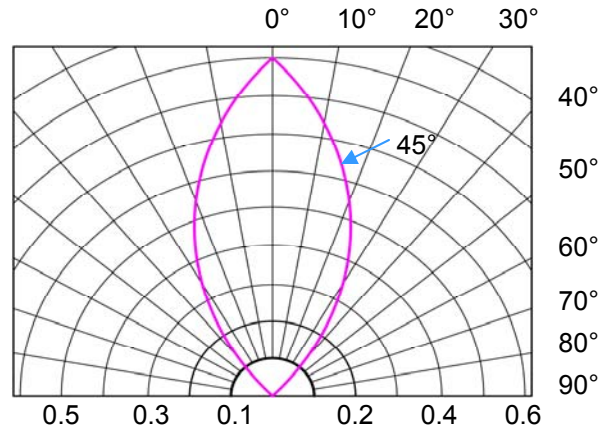


Fig. 2 Directivity Radiation Diagram

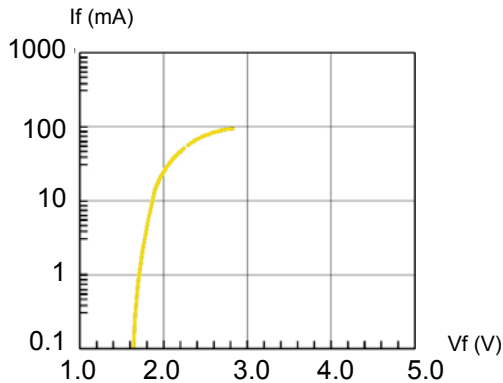


Fig. 3 Forward Current vs. Forward Voltage

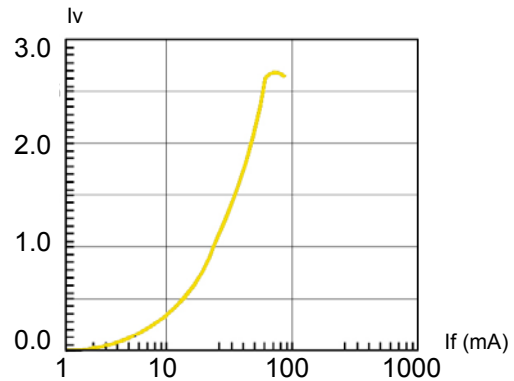


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

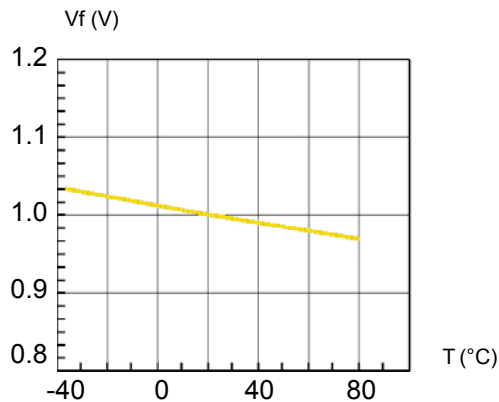


Fig. 5 Forward Voltage vs. Temperature

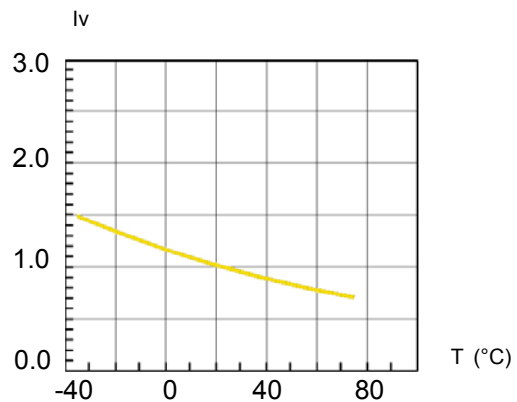


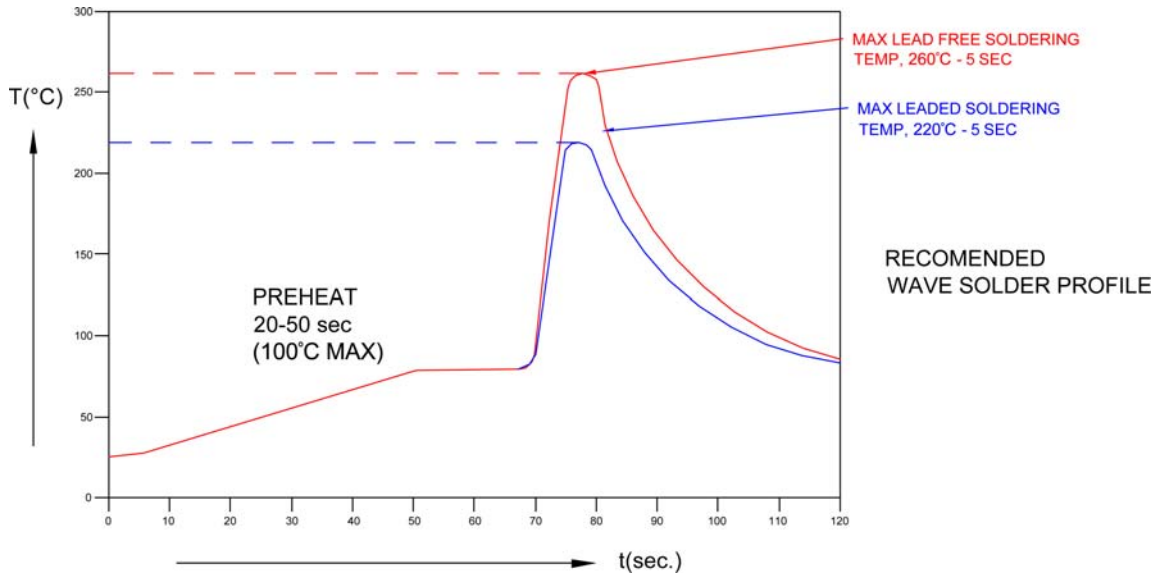
Fig. 6 Relative Luminous Intensity vs. Temperature

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3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color

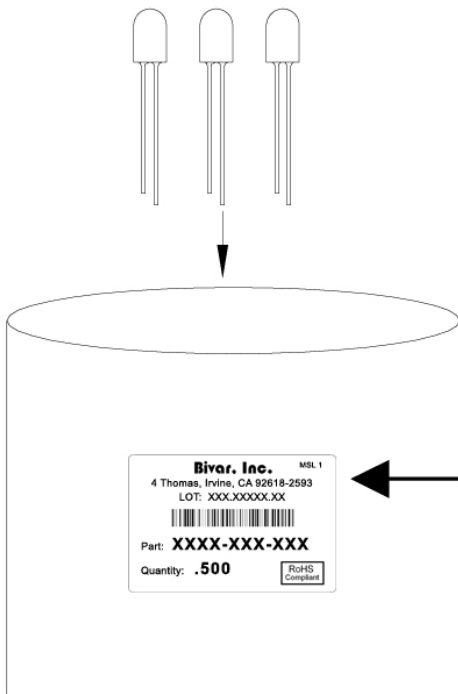


Recommended Soldering Conditions



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

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

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