

# 3BC-3-R/Y Datasheet

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

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## Purchase and inquiry

Manufacturer Product Number:

3BC-3-R/Y

Series:

-

Color:

Red, Yellow

Lens Color:

White

Millicandela Rating:

30mcd Red, 20mcd 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 - 3 Leads

Size / Dimension:

-

Manufacturer:

Bivar Inc.

Product Status:

Obsolete

Configuration:

Common Cathode

Lens Transparency:

Diffused

Lens Style:

Round with Domed Top

Voltage - Forward (Vf) (Typ):

2V Red, 2V Yellow

Viewing Angle:

40°

Wavelength - Dominant:

-

Features:

-

Supplier Device Package:

T-1 (3mm)

Height (Max):

7.00mm

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.41.0000

ECCN:

EAR99

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

# BIVAR

## 3BC-3-R/Y

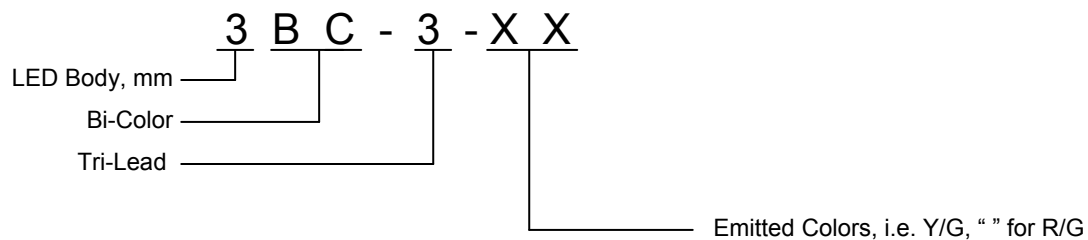
- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ White Diffused Lens
- ◆ 3-Lead Bi-Color LED
- ◆ Ideal for Status Indication and Display



Bivar 3mm T1 Package 3-Lead Bi-Color is ideal for those applications where multiple signals need to be displayed at the same location such as standby-on indication for server or computer peripherals. When needed, the 3rd color signal could be created by powering up both chips together for on-off-standby applications that require three distinct signals. Bivar offers white diffused LED lens for uniform light output. This 3-Lead Bi-color LED package comes in a common cathode Lead Frame configuration.

Part Number	Material	Emitted Color	Peak. Wavelength $\lambda_p$ (nm) TYP.	Lens Appearance	Viewing Angle
3BC-3-R/Y	GaAsP/GaP	RED	625nm	White Diffused	40°
	GaAsP/GaP	YELLOW	590nm		

## Part Number Designation

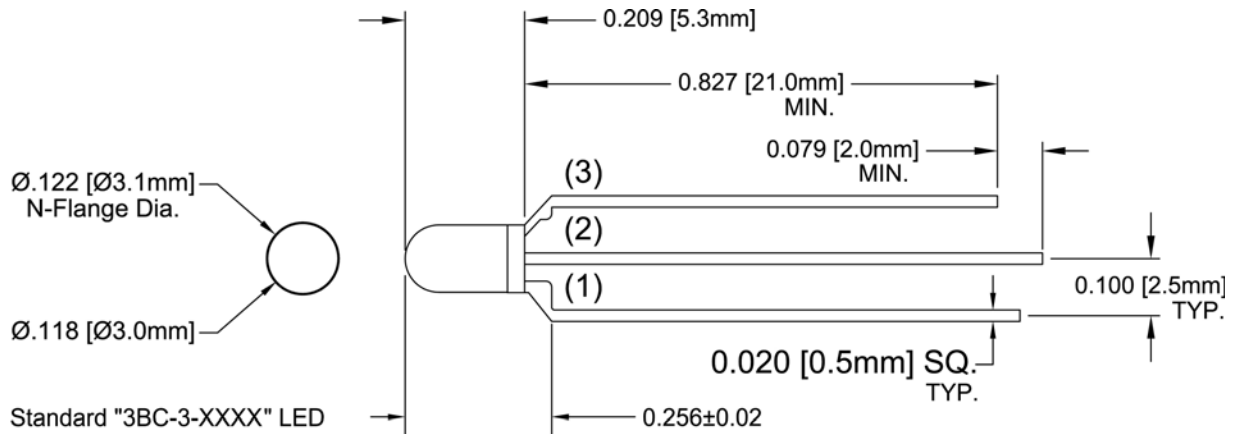


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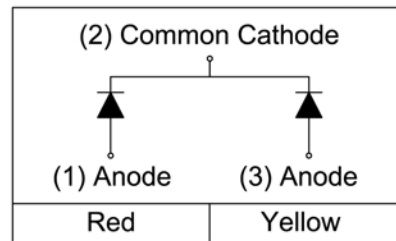
# 3mm (T1) Package Discrete LED RED/YELLOW, Bi-Color



## Outline Dimensions



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



- 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 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 <sup>1</sup>	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 ) <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	Emitted Color	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
3BC-3-R/Y	Red	/	2.0	2.8	/	20	/	100	/	/	/	/	30	/	40
	Yellow	/	2.0	2.8					/	/	/	/	20	/	

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

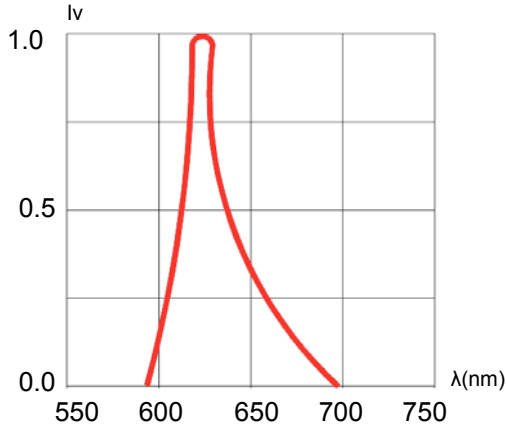


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

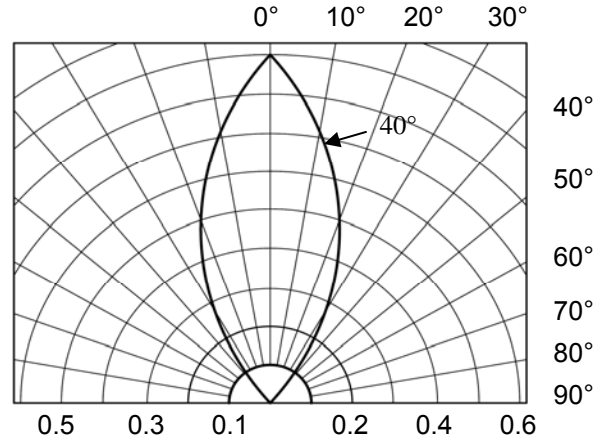


Fig. 2 Directivity Radiation Diagram

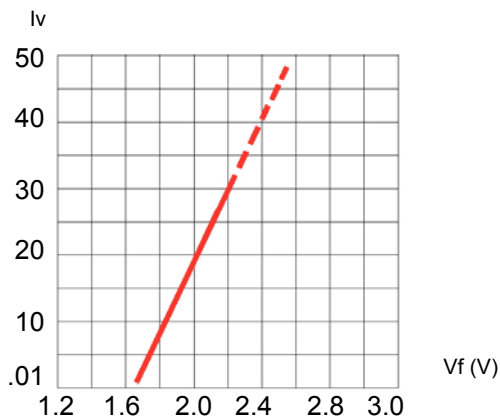


Fig. 3 Relative Intensity (10mA) vs. Forward Voltage

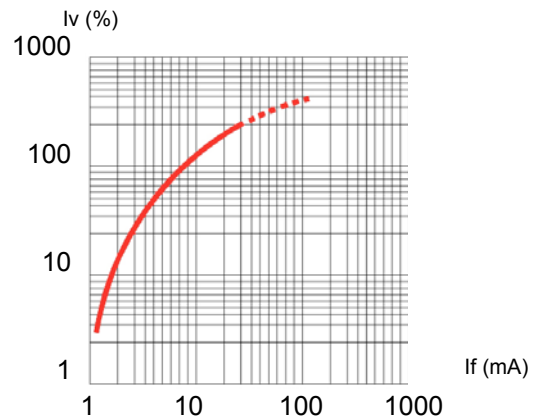


Fig. 4 Relative Luminous Intensity (%) vs. Forward Current

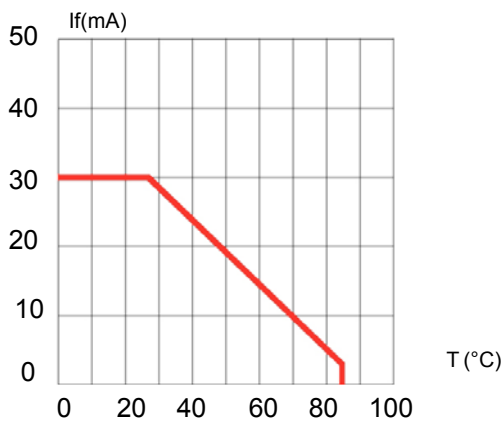


Fig. 5 Forward Current vs. Temperature

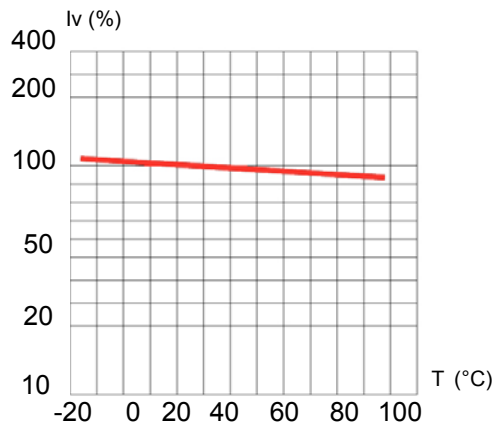


Fig. 6 Relative Intensity (%) vs. Temperature @ 20 mA

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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

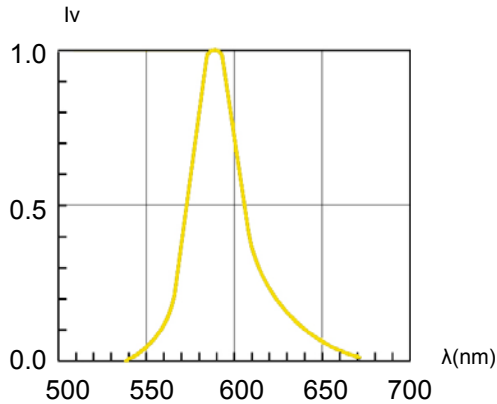


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

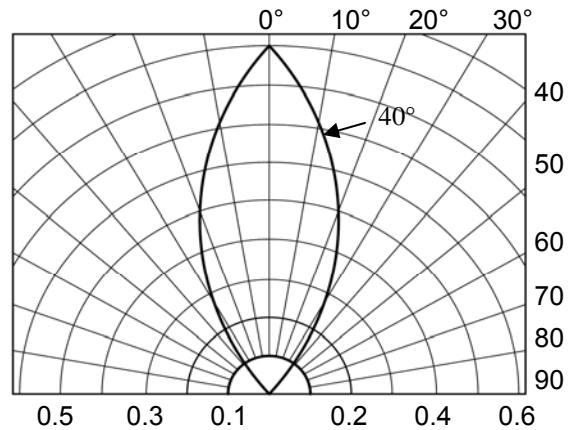


Fig. 2 Directivity Radiation Diagram

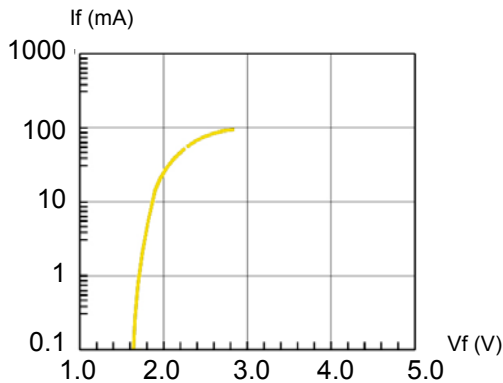


Fig. 3 Forward Current vs. Forward Voltage

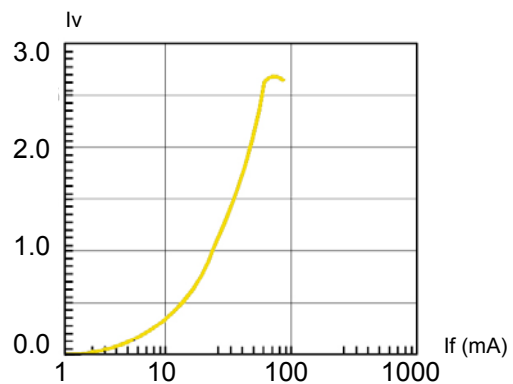


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

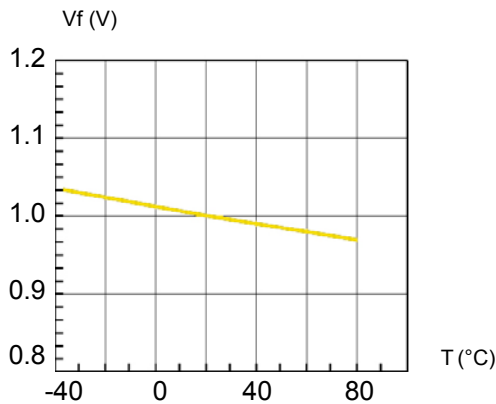


Fig. 5 Forward Voltage vs. Temperature

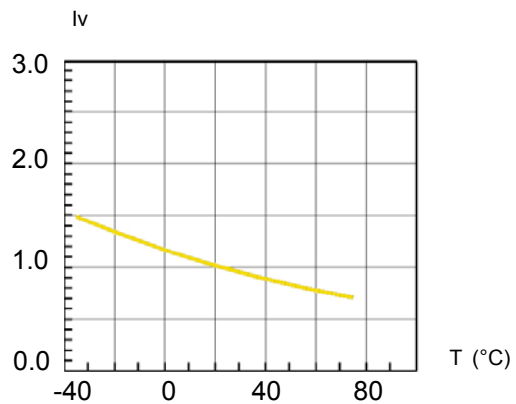


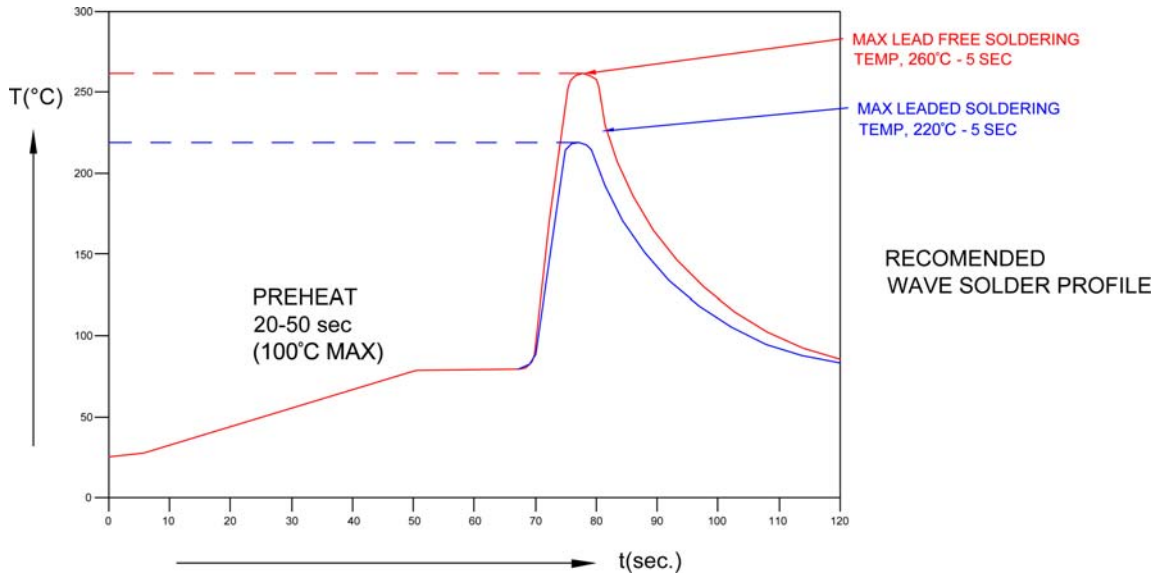
Fig. 6 Relative Luminous Intensity vs. Temperature

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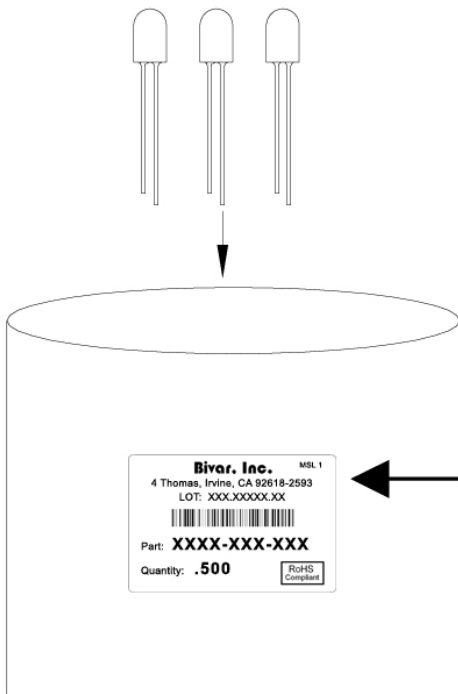


## Recommended Soldering Conditions



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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