

3GD Datasheet



DiGi Electronics Part Number	3GD-DG
Manufacturer	Bivar Inc.
Manufacturer Product Number	3GD
Description	LED GREEN DIFFUSED T-1 T/H
Detailed Description	Green LED Indication - Discrete 2.1V Radial

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Purchase and inquiry

Manufacturer Product Number:

3GD

Series:

-

Color:

Green

Lens Color:

Green

Millicandela Rating:

25mcd

Lens Size:

3mm, T-1

Current - Test:

20mA

Mounting Type:

Through Hole

Wavelength - Peak:

568nm

Package / Case:

Radial

Size / Dimension:

-

Manufacturer:

Bivar Inc.

Product Status:

Obsolete

Configuration:

Standard

Lens Transparency:

Diffused

Lens Style:

Round with Domed Top

Voltage - Forward (Vf) (Typ):

2.1V

Viewing Angle:

40°

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 GREEN



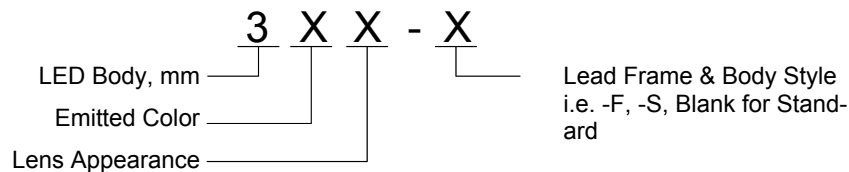
3GX-X

- ◆ Industry Standard 3mm (T1) Package
- ◆ RoHS Compliant
- ◆ Water Clear (C), Diffused (D), and Tinted (T) Lenses
- ◆ Available in Flange (F) and Shouldered (S) Lead Frame Styles
- ◆ Ideal for Status Indication and Display

Bivar 3mm T1 Package LED may be used in almost any application. 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 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 λ_p (nm) TYP.	Lens Appearance	Viewing Angle
3GC-F	GaP/GaP	GREEN	568nm	Water Clear	20°
3GD-F				Green Diffused	35°
3GT-F				Green Tinted	20°
3GC-S				Water Clear	30°
3GD-S				Green Diffused	40°
3GT-S				Green Tinted	30°

Part Number Designation

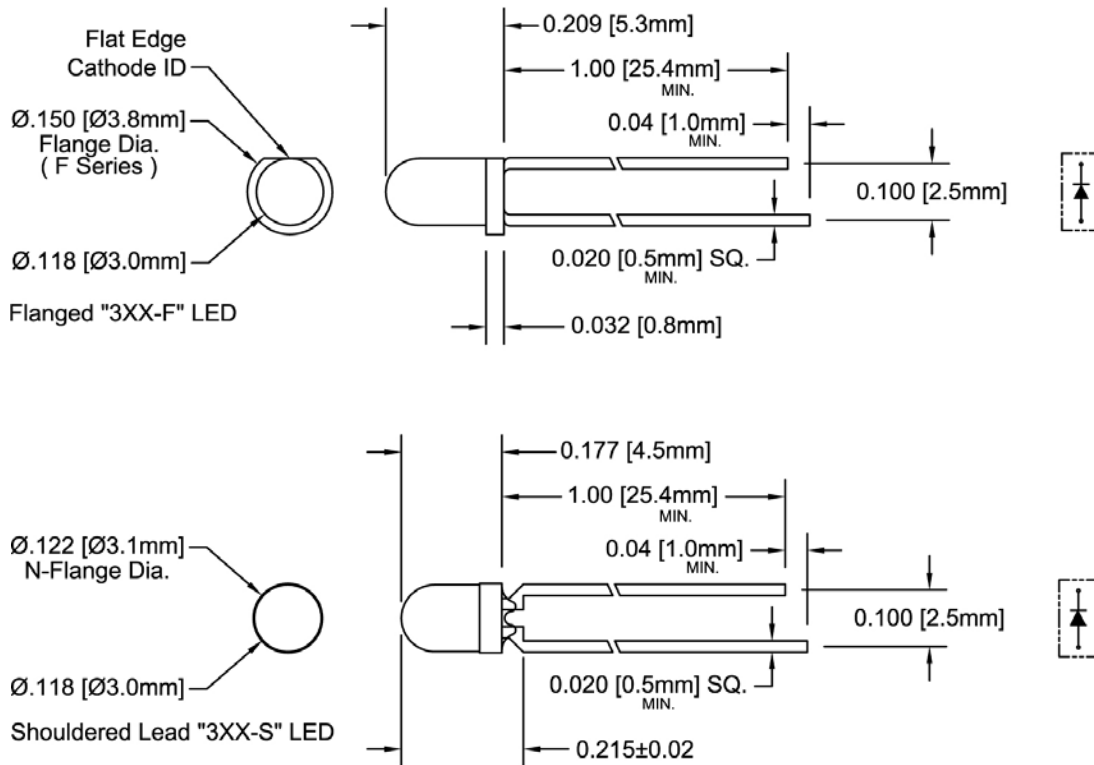


Bivar reserves the right to make changes at any time without notice.



3mm (T1) Package Discrete LED GREEN

Outline Dimensions



Recommended Mounting
 Hole Size = $\text{Ø}0.032^{+.003}_{-.002}$

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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3mm (T1) Package Discrete LED GREEN

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
Reverse Voltage	5 V
Operating Temperature Range	-40 ~ +85°C
Storage Temperature Range	-40 ~ +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	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
3GC-F								/	/	/	25	40	80	20
3GD-F	/	2.1	2.8	/	20	/	100	/	/	/	15	25	50	35
3GT-F								/	/	/	25	40	80	20
3GC-S								/	/	/	25	40	80	30
3GD-S	/	2.1	2.8	/	20	/	100	/	/	/	15	25	50	40
3GT-S								/	/	/	25	40	80	30

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 GREEN



Typical Electrical / Optical Characteristics

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

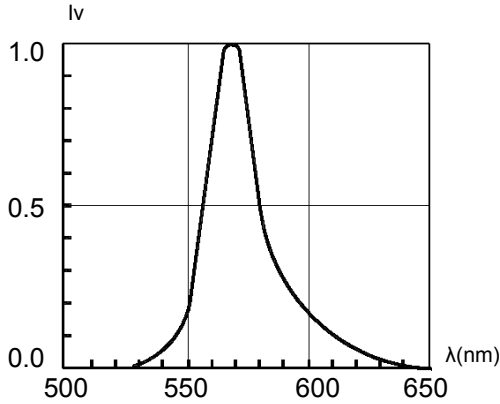


Fig. 1 Relative Luminous Intensity vs. Wavelength @ 20mA

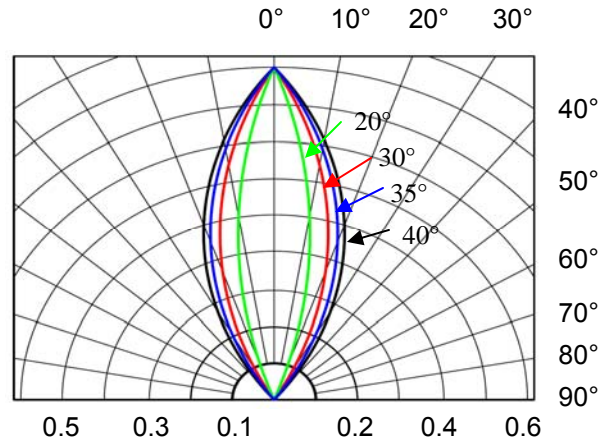


Fig. 2 Directivity Radiation Diagram

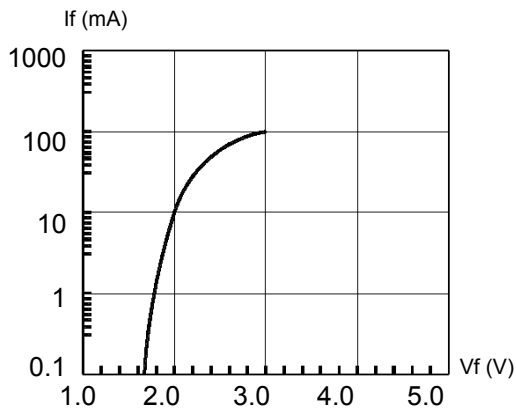


Fig. 3 Forward Current vs. Forward Voltage

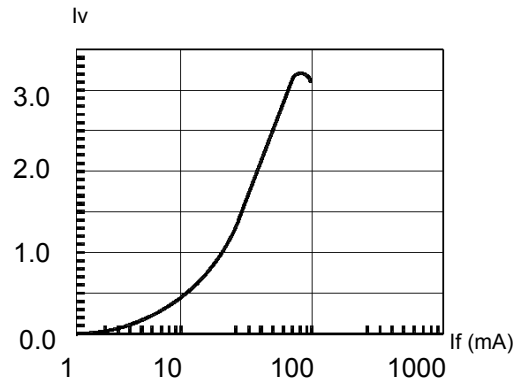


Fig. 4 Relative Luminous Intensity vs. Forward Current Normalize @ 20 mA

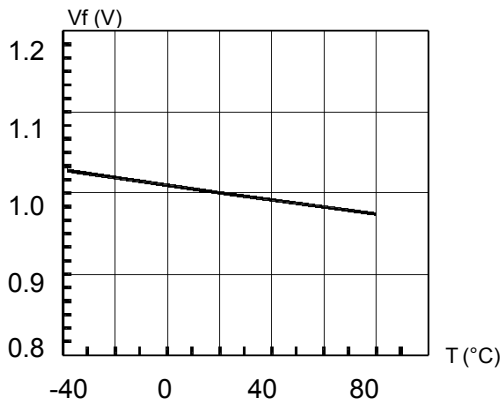


Fig. 5 Forward Voltage vs. Temperature

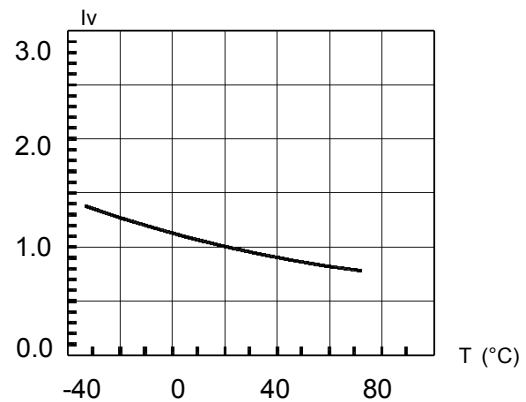


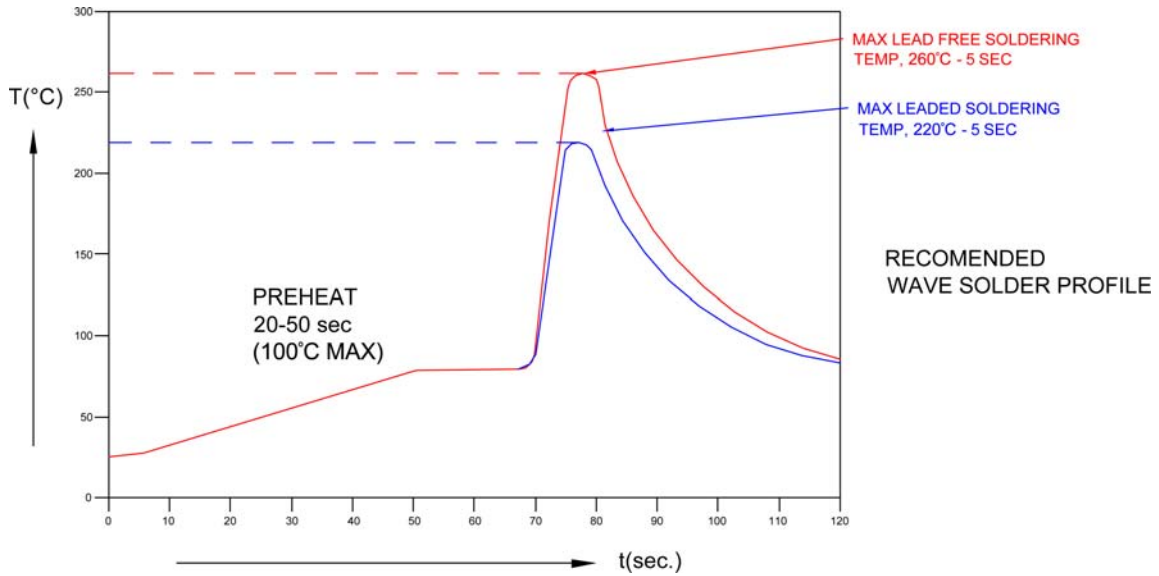
Fig. 6 Relative Luminous Intensity vs. Temperature

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3mm (T1) Package Discrete LED GREEN

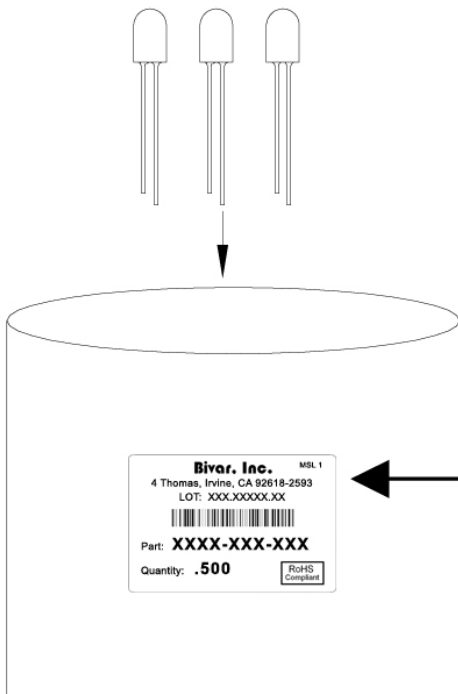


Recommended Soldering Conditions



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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