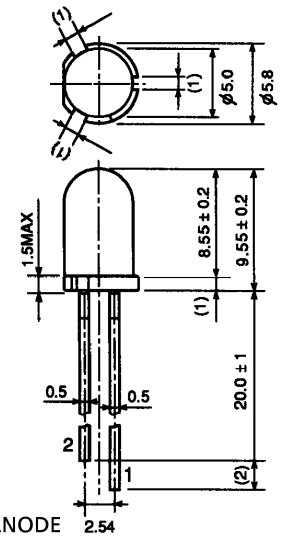
TOSHIBA LED LAMP InGaAℓP PURE GREEN LIGHT EMISSION

TLPGE159P

PANEL CIRCUIT INDICATOR

Unit in mm

- 5 mm DIAMETER (T1-3 / 4)
- InGaAℓP PURE GREEN LED
- All Plastic Mold Type.
- Colorless Clear Lens
- Low Drive Current, High Intensity Pure Green Light Emission
  Recommended Forward Current : I_F = 15~20 mA (DC)
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Fast Response Time, Capable of Pulse Operation.
- High Power Luminous Intensity
- Without stand-offs
- APPLICATIONS : Suitable for Traffic Signal, Safety equipment, Automotive use, etc.



1. ANODE
2. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	

Weight : 0.31 g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current (DC)	I_F	50	mA
Reverse Voltage	V_R	4	V
Power Dissipation	P_D	140	mW
Operating Temperature Range	T_{opr}	−30~85	°C
Storage Temperature Range	T_{stg}	−40~120	°C

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- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
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ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage	V_F	I_F = 20 mA	—	2.27	2.8	V
Reverse Current	I_R	V_R = 4 V	—	—	50	μA
Luminous Intensity	I_V	I_F = 20 mA (Note)	153	430	—	mcd
Peak Emission Wavelength	λ_p	I_F = 20 mA	—	562	—	nm
Spectral Line Half Width	$\Delta\lambda$	I_F = 20 mA	—	11	—	nm
Dominant Wavelength	λ_d	I_F = 20 mA	—	558	—	nm

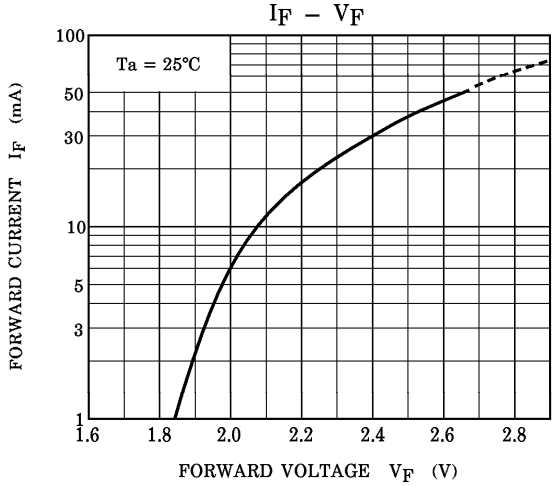
(Note) : Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
P : 180-360 mcd, Q : 320-640 mcd, R : 560-1120 mcd

PRECAUTION

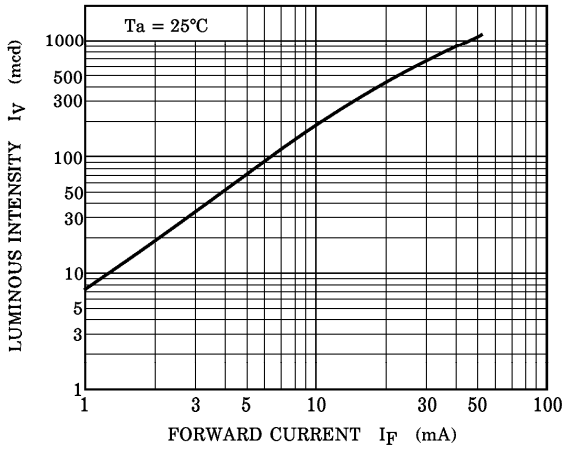
Please be careful of the followings

- Soldering temperature : 260°C max Soldering time : 3 s max
  (Soldering portion of lead : up to 2 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 5 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.
- This visible LED lamp also emits some IR light. If a photodetector is located near the LED lamp, please ensure that it will not be affected by this IR light.

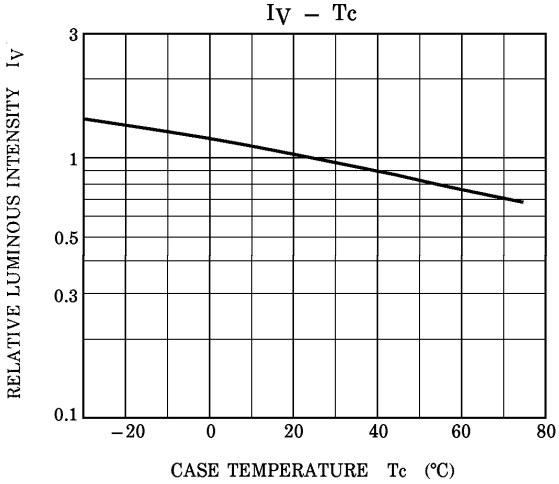
$I_F - V_F$



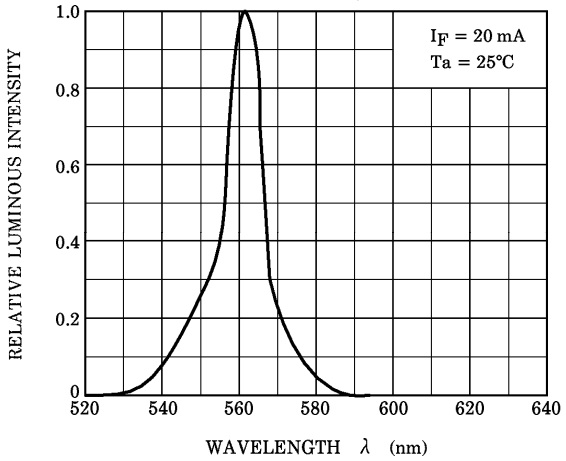
$I_V - I_F$



$I_V - T_c$

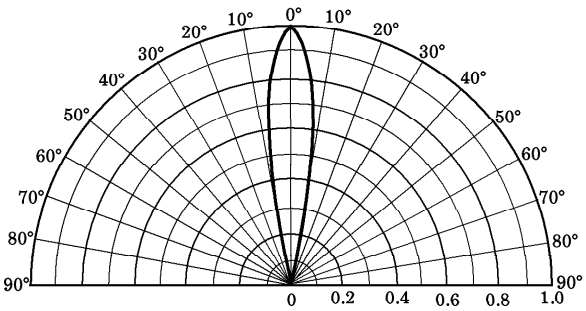
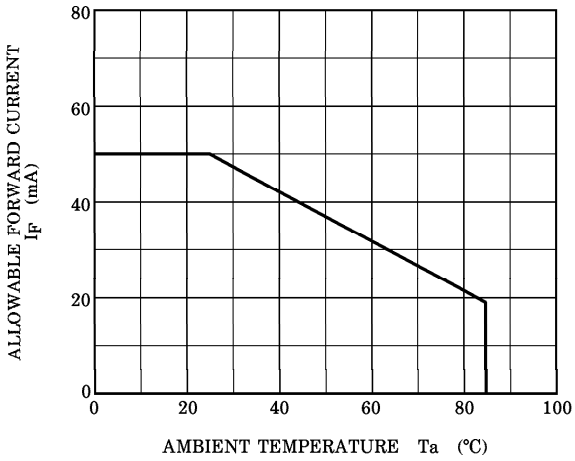


RELATIVE LUMINOUS INTENSITY
WAVELENGTH



RADIATION PATTERN

Ta = 25°C



$I_F - T_a$