

TOSHIBA LED LAMP InGaAlP GREEN LIGHT EMISSION

TLGE159P

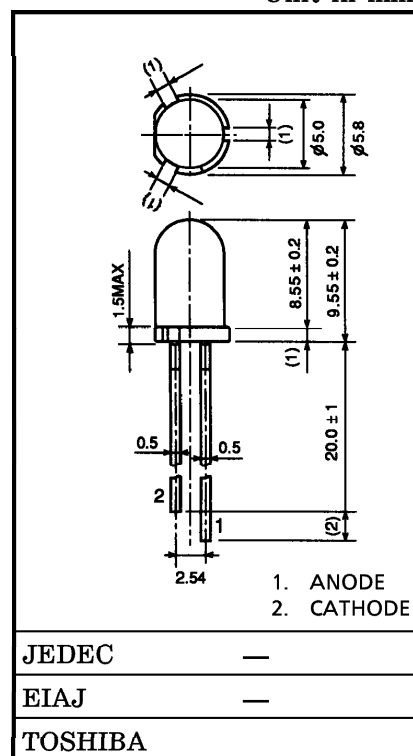
PANEL CIRCUIT INDICATOR

- 5 mm DIAMETER (T1-3 / 4)
- InGaAlP GREEN LED
- All Plastic Mold Type.
- Colorless Clear Lens
- Low Drive Current, High Intensity Green Light Emission
Recommended Forward Current : $I_F = 15 \sim 20$ 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 Outdoor Message Signboard, Safety equipment, etc.

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}	$-30\sim 85$	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	$-40\sim 120$	$^{\circ}\text{C}$

Unit in mm



Weight : 0.31 g

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ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage	V_F	$I_F = 20 \text{ mA}$	—	2.27	2.8	V
Reverse Current	I_R	$V_R = 4 \text{ V}$	—	—	50	μA
Luminous Intensity	I_V	$I_F = 20 \text{ mA}$ (Note)	476	1700	—	mcd
Peak Emission Wavelength	λ_p	$I_F = 20 \text{ mA}$	—	574	—	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	11	—	nm
Dominant Wavelength	λ_d	$I_F = 20 \text{ mA}$	—	571	—	nm

(Note) : Lamps are classified into the following ranks according to their luminous intensity.

Measurement tolerance for each limit is $\pm 15\%$.

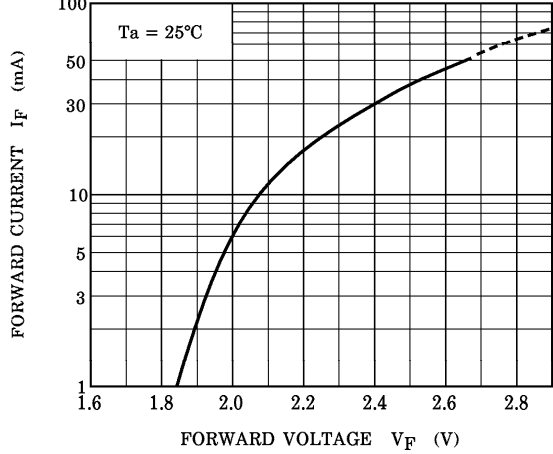
R : 560-1120 mcd, S : 1000-2000 mcd, T : 1800-3600 mcd

PRECAUTION

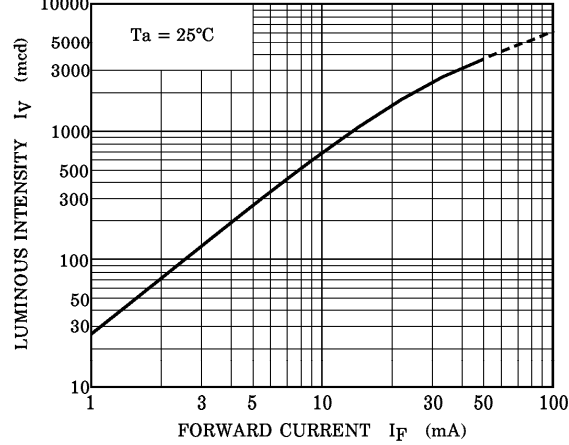
Please be careful of the followings

- 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.

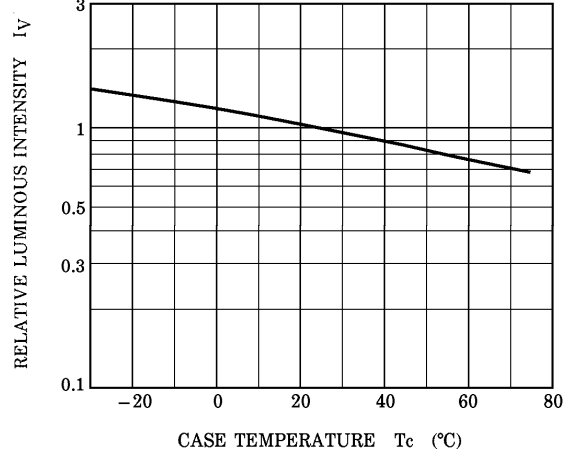
$I_F - V_F$



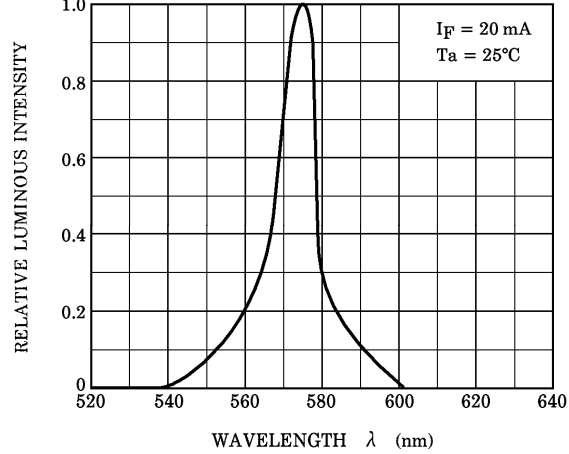
$I_V - I_F$



$I_V - T_c$

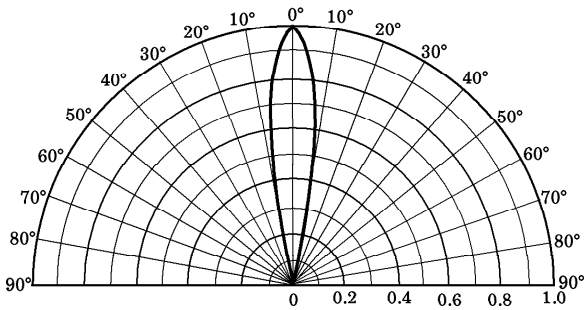


RELATIVE LUMINOUS INTENSITY - WAVELENGTH



RADIATION PATTERN

$T_a = 25^\circ\text{C}$



$I_F - T_a$

