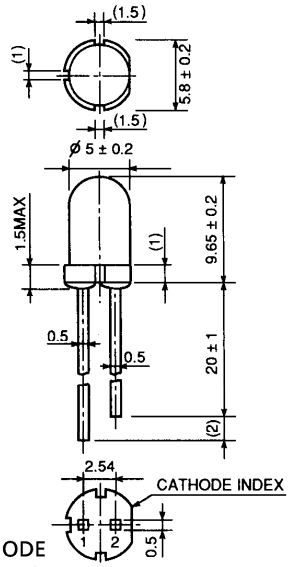
TOSHIBA LED LAMP InGaAℓP ORANGE LIGHT EMISSION

TLOH180P

PANEL CIRCUIT INDICATOR

Unit in mm



1. ANODE
2. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	4-6J1

Weight : 0.31 g

- 5 mm DIAMETER (T1-3 / 4)
- InGaAlP ORANGE LED
- All Plastic Mold Type.
- Colorless Clear Lens
- Low Drive Current, High Intensity Orange Light Emission
  Recommended Forward Current : I_F = 1~20 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.

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	125	mW
Operating Temperature Range	T_{opr}	−30~85	°C
Storage Temperature Range	T_{stg}	−40~120	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage		V_F	I_F = 20 mA	—	2.1	2.5	V
Reverse Current		I_R	V_R = 4 V	—	—	50	μA
Luminous Intensity	TLOH180P	I_V	I_F = 20 mA (Note)	2720	10000	—	mcd
	TLOH180P (VW)			4760	—	23000	
Peak Emission Wavelength		λ_p	I_F = 20 mA	—	612	—	nm
Spectral Line Half Width		$\Delta\lambda$	I_F = 20 mA	—	15	—	nm
Dominant Wavelength		λ_d	I_F = 20 mA	—	605	—	nm

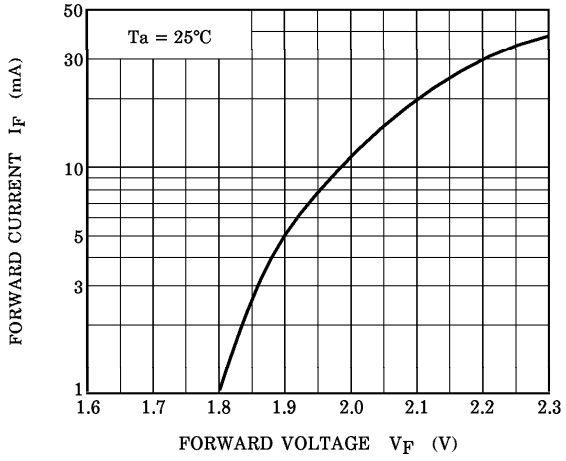
(Note) : Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
U : 3200-6400 mcd, V : 5600-11200 mcd, W : 10000-20000 mcd.

PRECAUTION

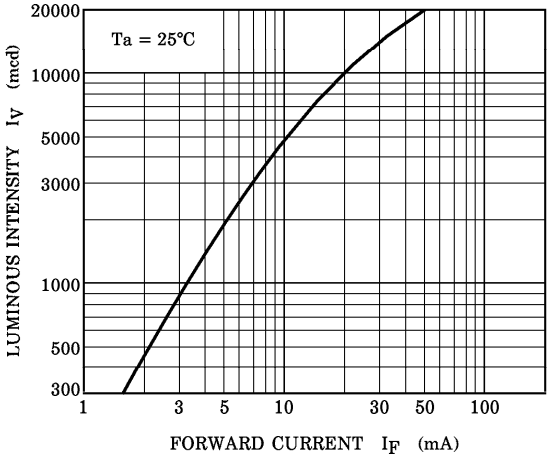
Please be careful of the followings

- 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.

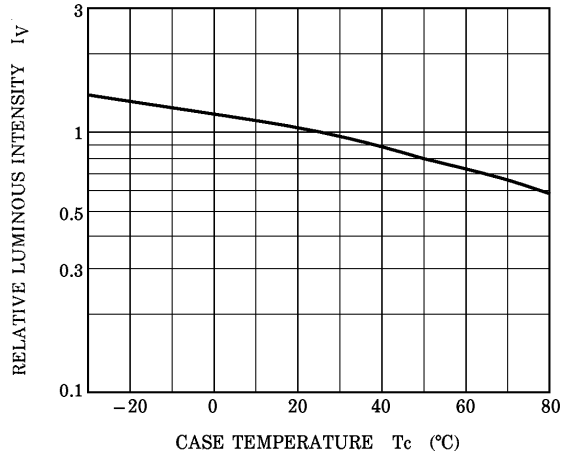
$I_F - V_F$



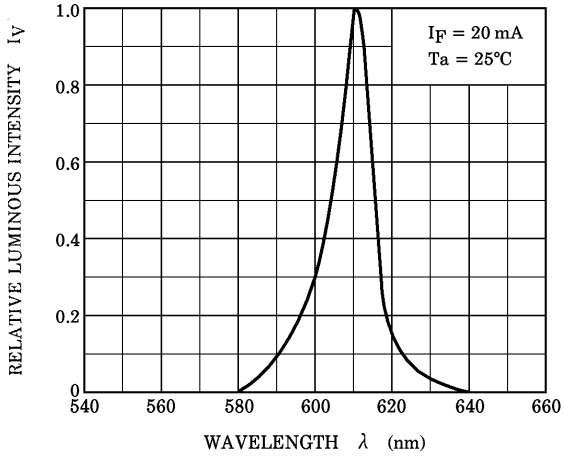
$I_V - I_F$



$I_V - Tc$

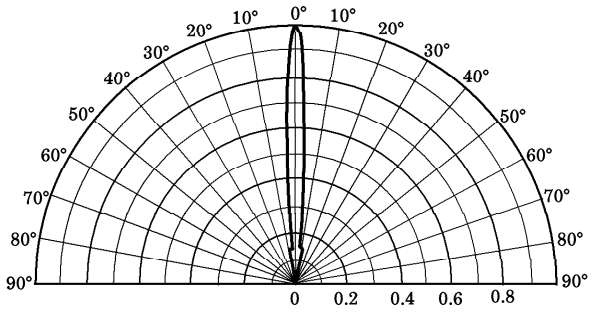


RELATIVE LUMINOUS INTENSITY − WAVELENGTH



RADIATION PATTERN

Ta = 25°C



$I_F - Ta$