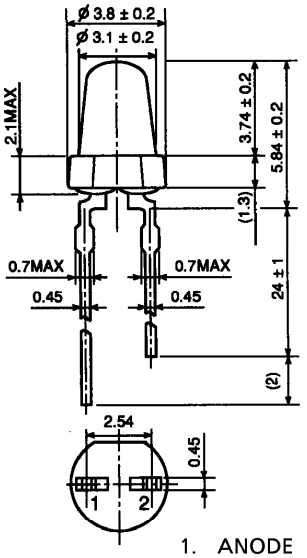
TOSHIBA LED LAMP InGaAℓP RED LIGHT EMISSION

TLSH160

PANEL CIRCUIT INDICATOR

Unit in mm



1. ANODE
2. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	4-3E1A

Weight : 0.14 g

- 3.1 mm DIAMETER (T1-3 / 4)
- InGaAℓP RED LED
- Colorless Transparent Lens
- Low Drive Current, High Intensity RED 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.
- APPLICATIONS : Indicator, Backlight

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current	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	I_V	I_F = 20 mA (Note)	2720	4500	—	mcd
Peak Emission Wavelength	λ_P	I_F = 20 mA	—	623	—	nm
Spectral Line Half Width	$\Delta\lambda$	I_F = 20 mA	—	15	—	nm
Dominant Wavelength	λd	I_F = 20 mA	—	613	—	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 : 8500~23000 mcd

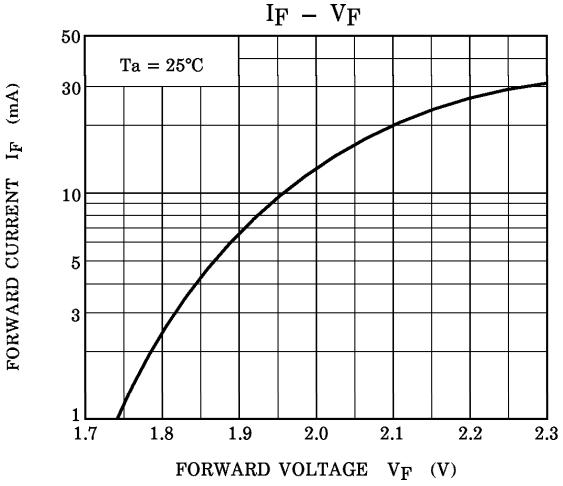
961001EAC1

PRECAUTION

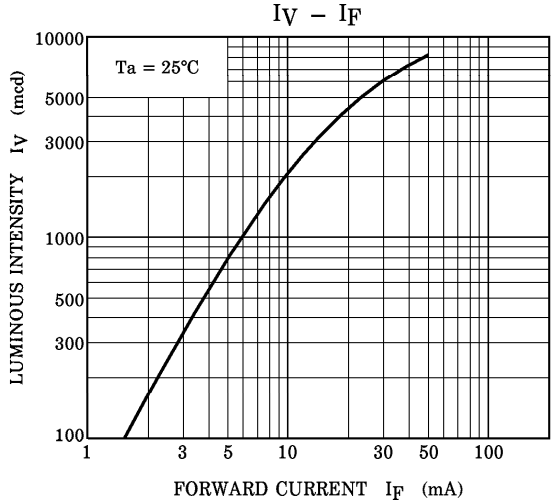
Please be careful of the followings

- 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.

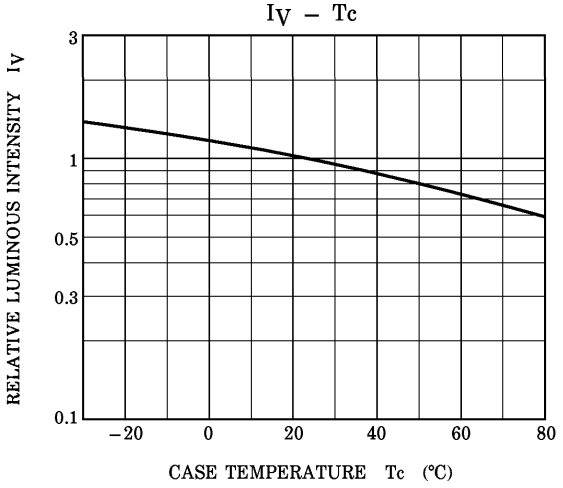
$I_F - V_F$



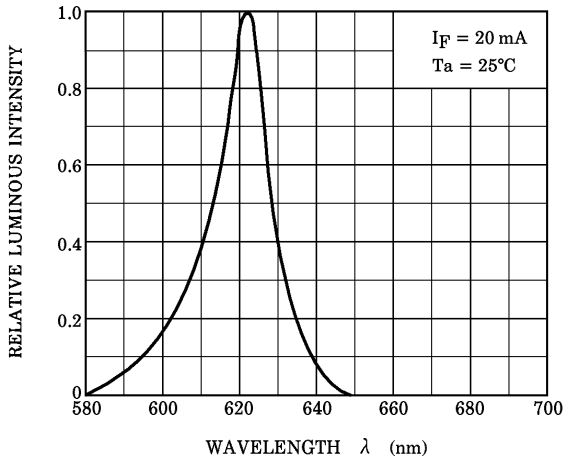
$I_V - I_F$



$I_V - Tc$

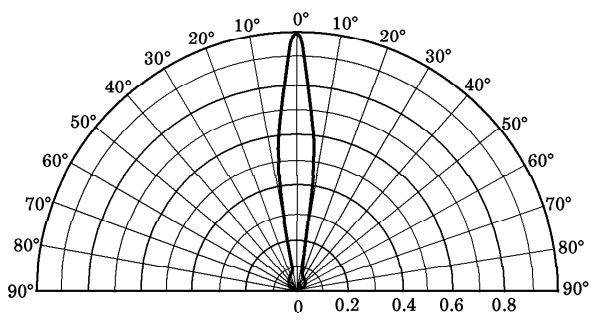


RELATIVE LUMINOUS INTENSITY WAVELENGTH



RADIATION PATTERN

Ta = 25°C



$I_F - Ta$