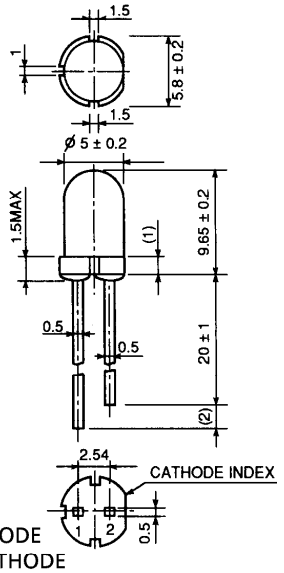
TOSHIBA LED LAMP InGaAℓP RED LIGHT EMISSION

TLSH180P

PANEL CIRCUIT INDICATOR

Unit in mm



1. ANODE
2. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	4-6J1

Weight : 0.31g

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

ELECTRO-OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage		V_F	I_F = 20mA	—	2.1	2.5	V
Reverse Current		I_R	V_R = 4V	—	—	50	μA
Luminous Intensity	TLSH180P	I_V	I_F = 20mA (Note)	2720	8000	—	mcd
	TLSH180P (UV)			2720	—	12900	
Peak Emission Wavelength		λ_p	I_F = 20mA	—	623	—	nm
Spectral Line Half Width		$\Delta\lambda$	I_F = 20mA	—	15	—	nm
Dominant Wavelength		λ_d	I_F = 20mA	—	613	—	nm

(Note) Rank selection carried out under next range respectively, although it needs ±15% additionary for guaranteed limits.
U : 3200-6400mcd, V : 5600-11200mcd, W : 8500-23000mcd.

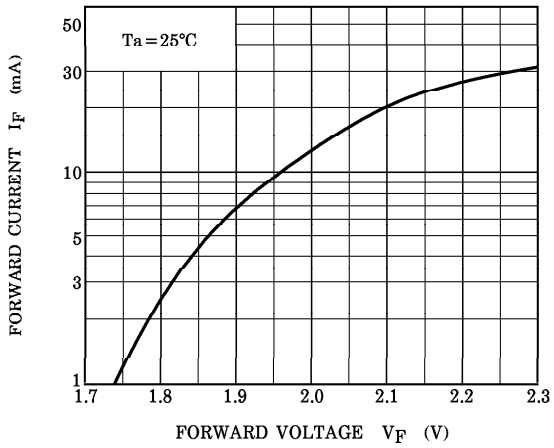
961001EAC2

PRECAUTION

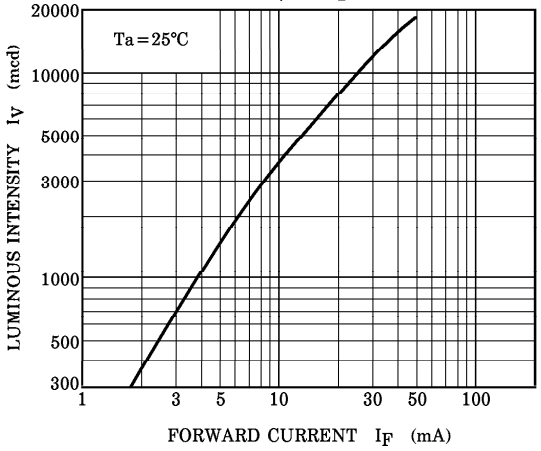
Please be careful of the followings

- Soldering temperature : 260°C MAX. Soldering time : 3s MAX.
  (Soldering portion of lead : up to 2mm from the body of the device)
- If the lead is formed, the lead should be formed up to 5mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.

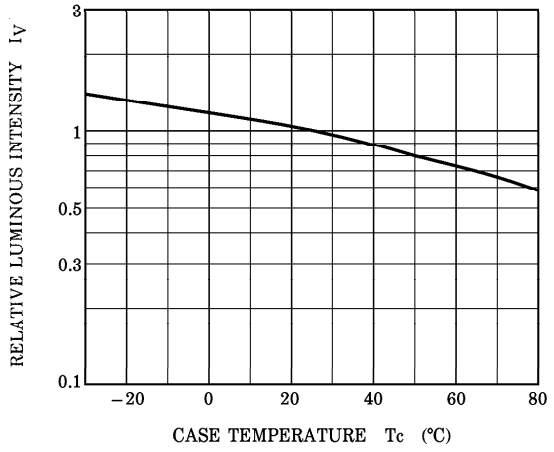
$I_F - V_F$



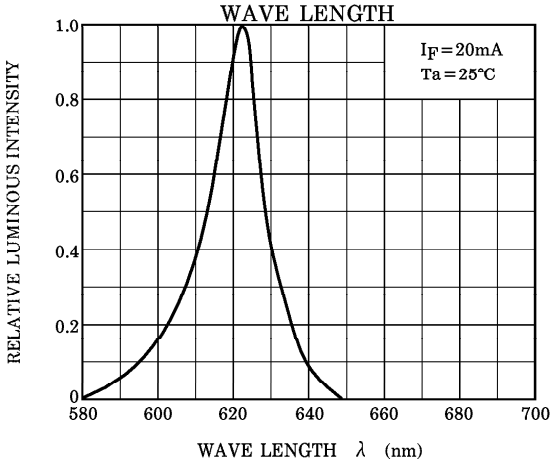
$I_V - I_F$



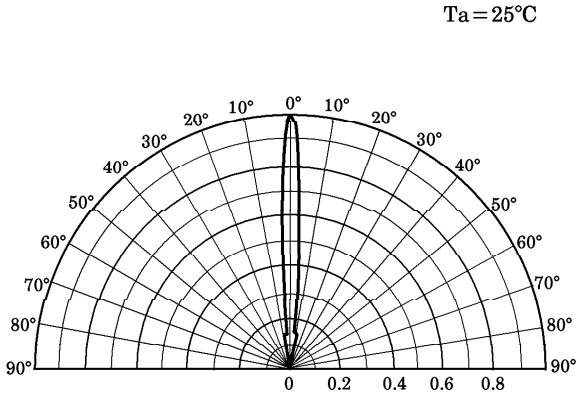
$I_V - Tc$



RELATIVE LUMINOUS INTENSITY − WAVE LENGTH



RADIATION PATTERN



$I_F - Ta$