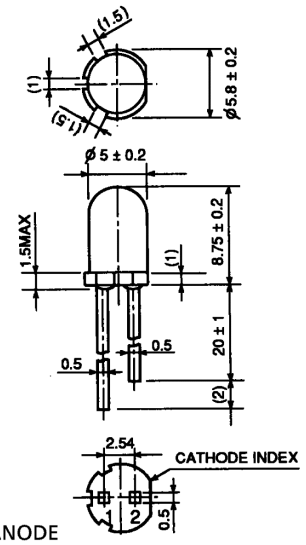
TOSHIBA LED Lamp InGaAℓP Red Light Emission

TLSH156P

Panel Circuit Indicator

- 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, automotive use.

Unit in mm



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	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 = 20mA	—	2.1	2.5	V
Reverse current		I_R	V_R = 4V	—	—	50	μA
Luminous intensity	TLSH156P	I_V	I_F = 20mA (Note)	476	1400	—	mcd
	TLSH156P(RS)			476	—	2300	
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

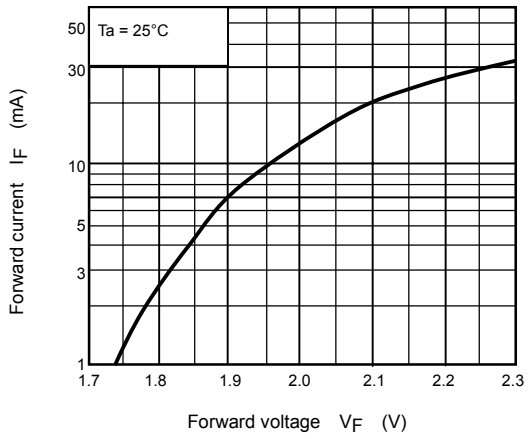
(Note): Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
R: 560−1120mcd, S: 1000−2000mcd, T: 1800−3600mcd.

Precaution

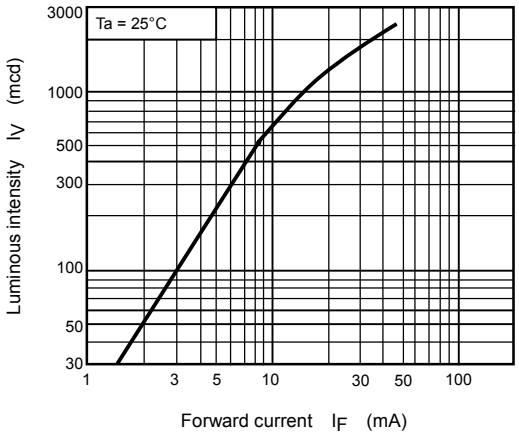
Please be careful of the followings

- 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.
- 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.

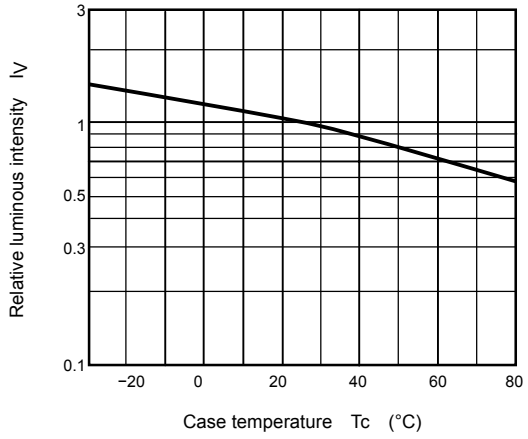
$I_F - V_F$



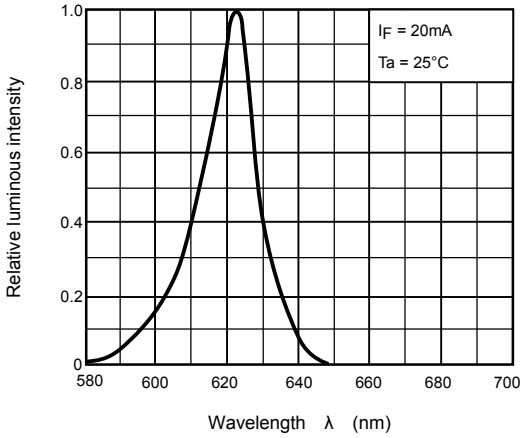
$I_V - I_F$



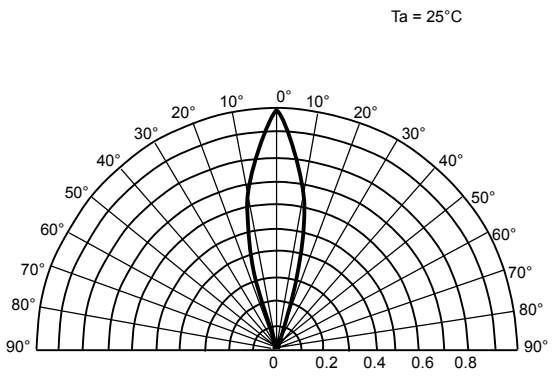
$I_V - Tc$



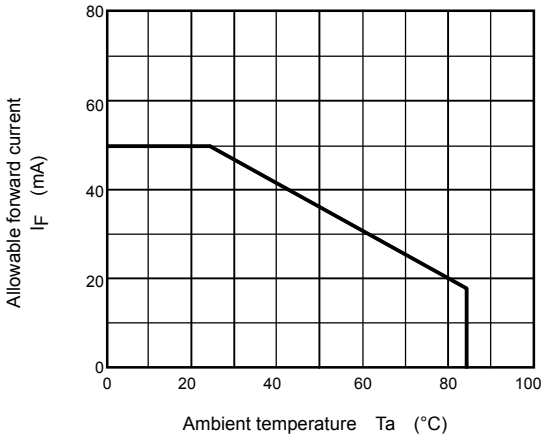
Relative Luminous Intensity – Wavelength



Radiation Pattern



$I_F - Ta$



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