TOSHIBA LED Lamp InGaAlP Red Light Emission

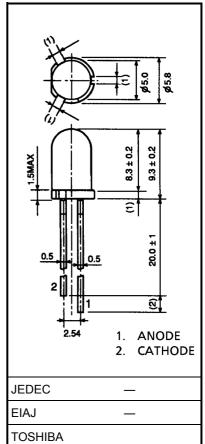
# TLSH157P

### Panel Circuit Indicator

- 5 mm 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:  $I_F = 1 \sim 20 \text{ mA} (DC)$
- 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, automotive use.

## Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Forward current (DC)	١ <sub>F</sub>	50	mA
Reverse voltage	V <sub>R</sub>	4	V
Power dissipation	PD	125	mW
Operating temperature range	T <sub>opr</sub>	-30~85	°C
Storage temperature range	T <sub>stg</sub>	-40~120	°C



# Electrical And Optical Characteristics (Ta = 25°C)

#### Weight: 0.31 g

C	haracteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Forward voltage V <sub>F</sub>		I <sub>F</sub> = 20 mA	_	2.1	2.5	V	
Reverse curre	ent	I <sub>R</sub>	V <sub>R</sub> = 4 V	_	_	50	μA
Luminous intensity	TLSH157P	- I <sub>V</sub>	I <sub>F</sub> = 20 mA (Note)	850	2700	_	mcd
	TLSH157P (ST)			850		4140	
Peak emission wavelength		λ <sub>P</sub>	I <sub>F</sub> = 20 mA	_	623	_	nm
Spectral line half width		Δλ	I <sub>F</sub> = 20 mA	_	15	_	nm
Dominant wavelength		λ <sub>d</sub>	I <sub>F</sub> = 20 mA	_	613	_	nm

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

Measurement tolerance for each limit is ±15%.

S: 1000-2000 mcd, T: 1800-3600 mcd, U: 3200-6400 mcd.

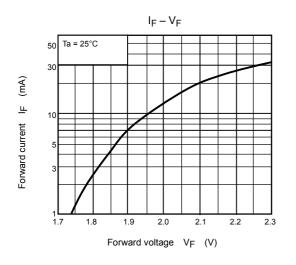
Unit in mm

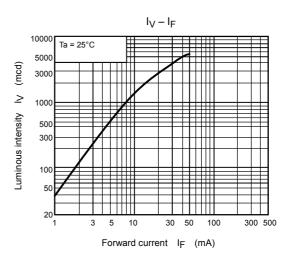
# TOSHIBA

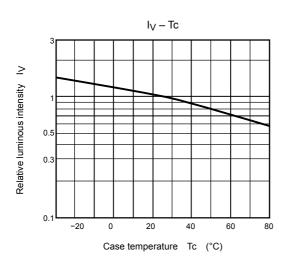
## Precaution

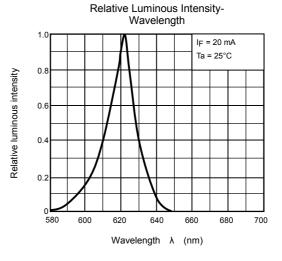
- Please be careful of the followings
- Soldering temperature: 260°C max Soldering time: 3s max (Soldering portion of lead: Up to 2 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 5 mm from the body of the device without forming stress to the resin. Soldering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

# **TOSHIBA**

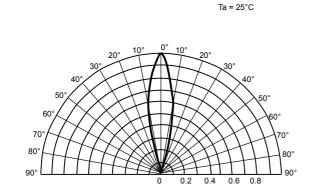


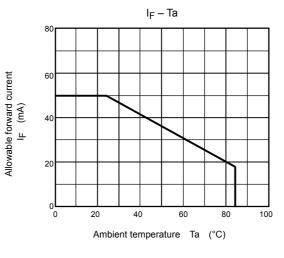












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