

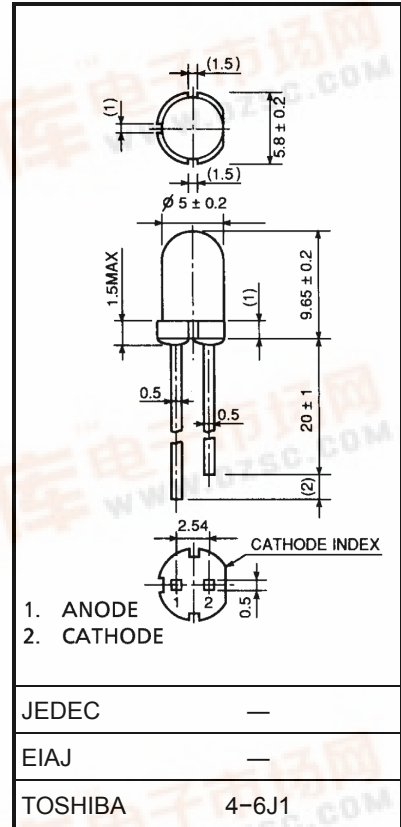
TOSHIBA LED Lamp InGaAlP Red Light Emission

TLRH180P

Panel Circuit Indicator

Unit in mm

- 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: $I_F = 1\sim 20\text{mA}$ (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.



Weight: 0.31g

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	$I_F = 20\text{ mA}$	—	1.9	2.5	V
Reverse current	I_R	$V_R = 4\text{ V}$	—	—	50	μA
Luminous intensity	TLRH180P	$I_F = 20\text{ mA}$ (Note)	1530	5000	—	mcd
	TLRH180P(UV)		2720	—	12900	
Peak emission wavelength	λ_p	$I_F = 20\text{ mA}$	—	644	—	nm
Spectral line half width	$\Delta\lambda$	$I_F = 20\text{ mA}$	—	18	—	nm
Dominant wavelength	λ_d	$I_F = 20\text{ mA}$	—	630	—	nm

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

Measurement tolerance for each limit is $\pm 15\%$.

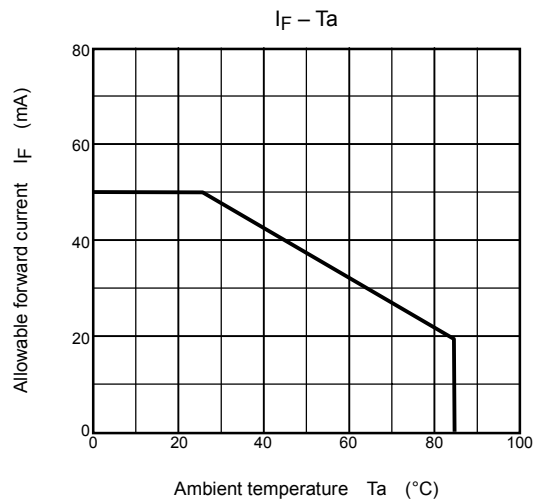
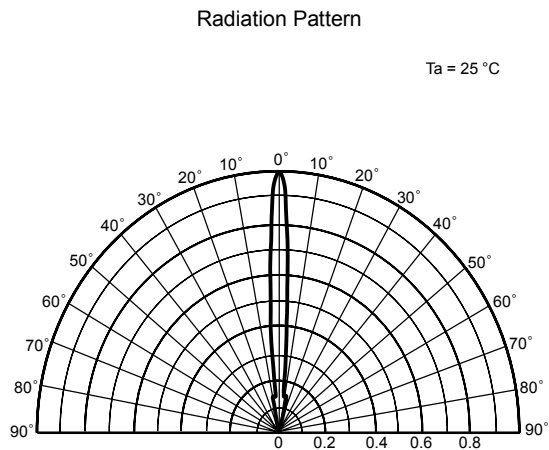
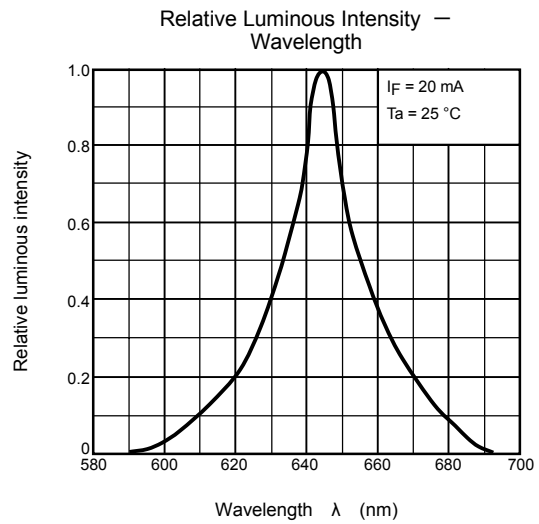
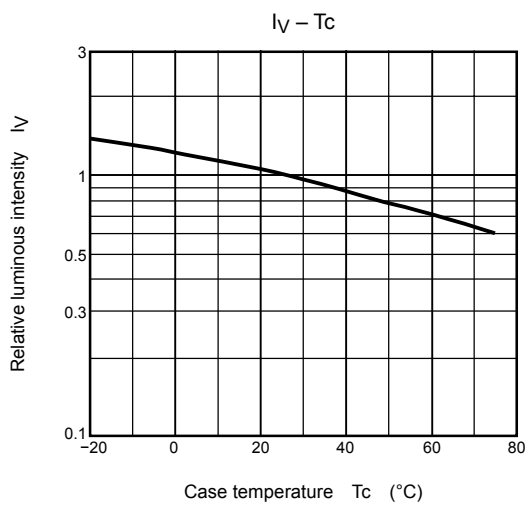
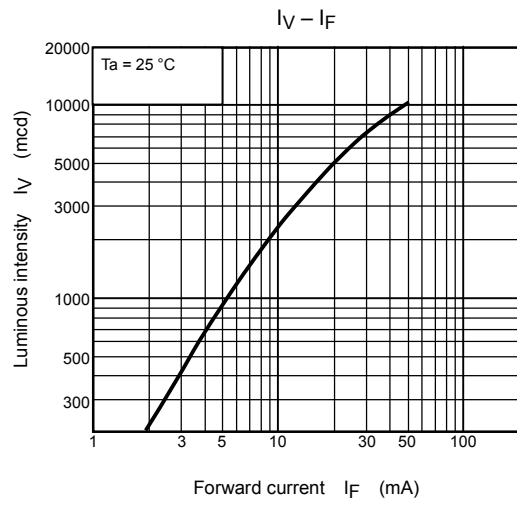
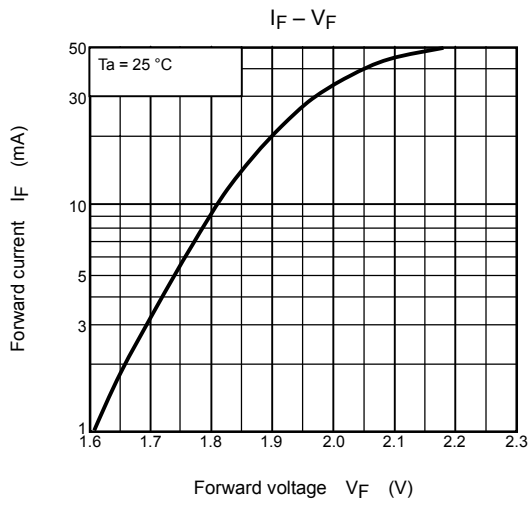
T: 1800~3600mcd, U: 3200~6400mcd, V: 5600~11200mcd.



Precaution

Please be careful of the following

- Soldering temperature: 260°Cmax 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.



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