

TOSHIBA LED Lamp InGaAlP Red Light Emission

TLRE157AP

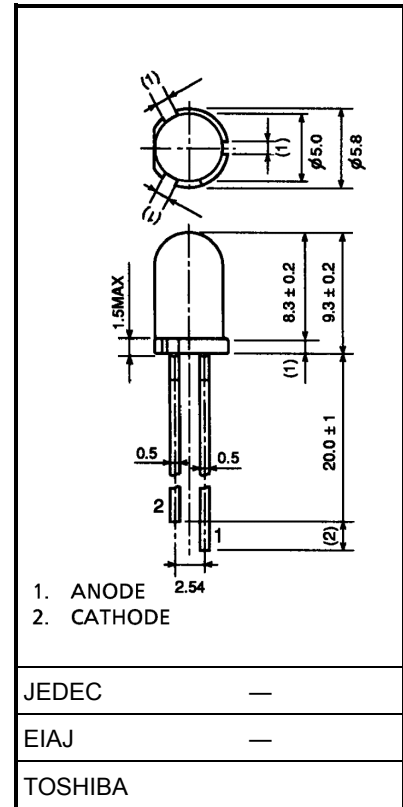
Panel Circuit Indicator

- 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: $I_f = 15\sim 20\text{mA (DC)}$
- 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)	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

Unit in mm



Weight: 0.31g

Electrical And Optical Characteristics (Ta = 25°C)

Characteristic		Symbol	Test Condition	Min	Typ.	Max	Unit	
Forward voltage		V_F	$I_F=20\text{mA}$	—	1.85	2.4	V	
Reverse current		I_R	$V_R=4\text{V}$	—	—	50	μA	
Luminous intensity	TLRE157AP	I_V	$I_F=20\text{mA}$	(Note)	272	1000	—	mcd
	TLRE157AP(ST)				850	—		
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.

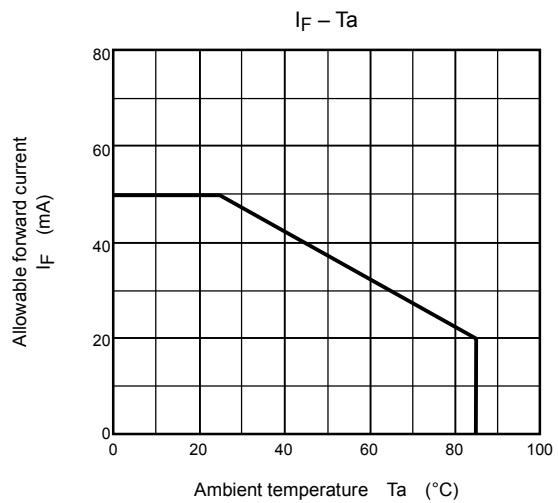
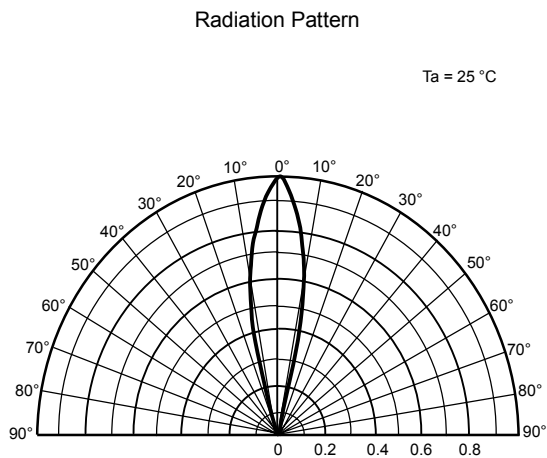
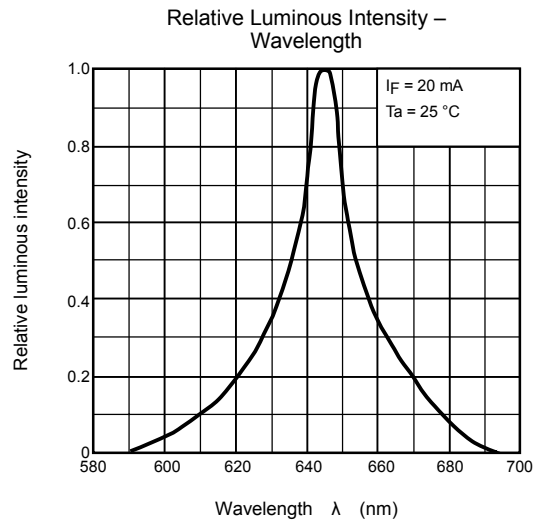
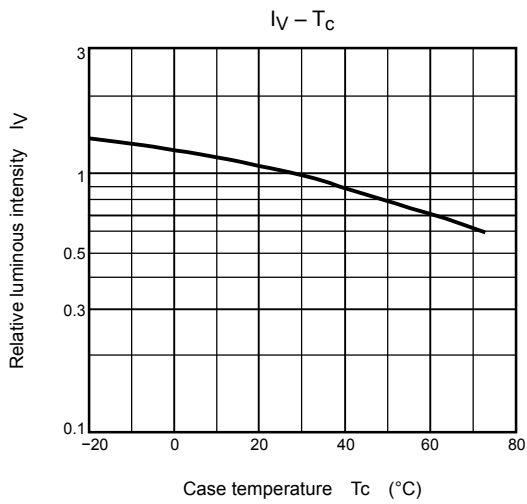
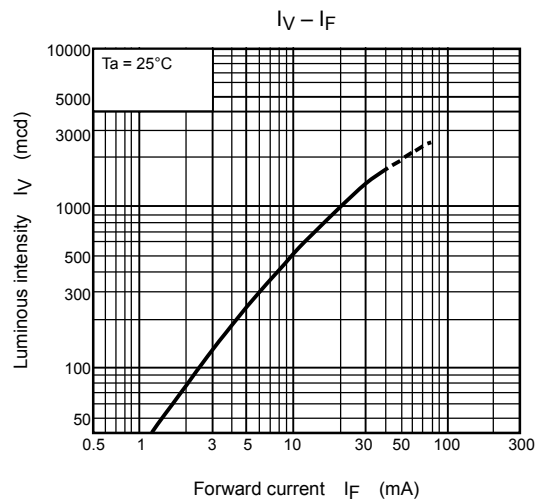
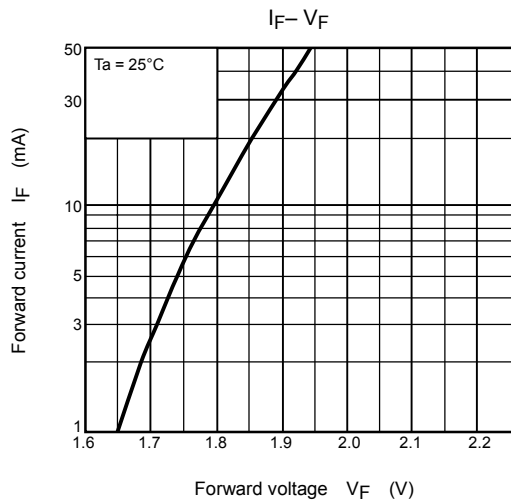
Measurement tolerance for each limit is $\pm 15\%$.

Q: 320–640mcd, R: 560–1120mcd, S: 1000–2000mcd, T: 1800–3600mcd, U: 3200–6400mcd

Precaution

Please be careful of the followings

- Soldering temperature: 260°Cmax 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.



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