

TOSHIBA LED Lamp InGaAlP Orange Light Emission

TLOE180AP

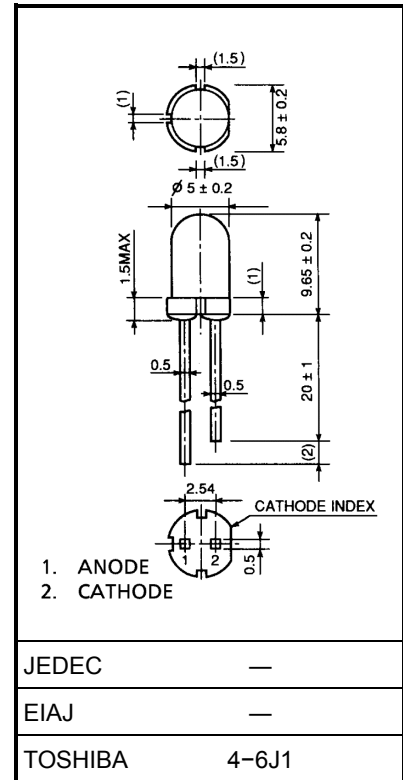
Panel Circuit Indicator

- 5 mm diameter (T1-3 / 4)
- InGaAlP orange LED
- All plastic mold type.
- Colorless clear lens
- Low drive current, high intensity orange 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.

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 Characteristics (Ta = 25°C)

Characteristic		Symbol	Test Condition	Min	Typ.	Max	Unit		
Forward voltage		V_F	$I_F = 20 \text{ mA}$	—	1.95	2.4	V		
Reverse current		I_R	$V_R = 4 \text{ V}$	—	—	50	μA		
Luminous intensity	TLOE180AP	I_V	$I_F = 20 \text{ mA}$		(Note)	1530	7000	—	mcd
	TLOE180AP(UV)					2720	—	12900	
Peak emission wavelength		λ_p	$I_F = 20 \text{ mA}$	—	612	—	nm		
Spectral line half width		$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	15	—	nm		
Dominant wavelength		λ_d	$I_F = 20 \text{ mA}$	—	605	—	nm		

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

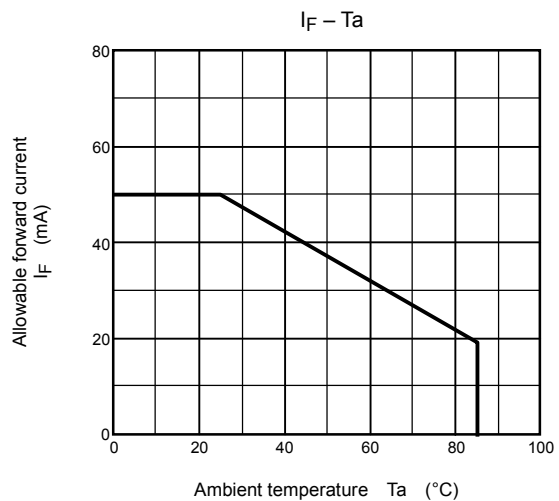
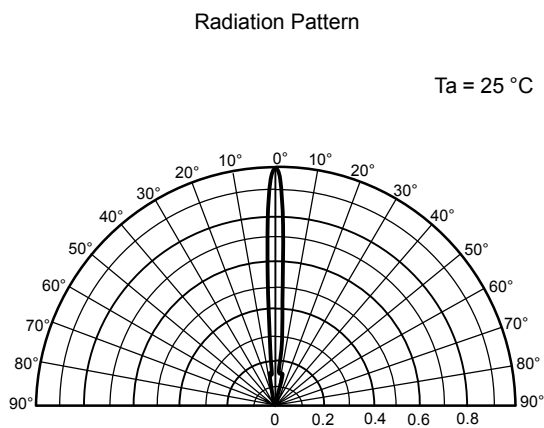
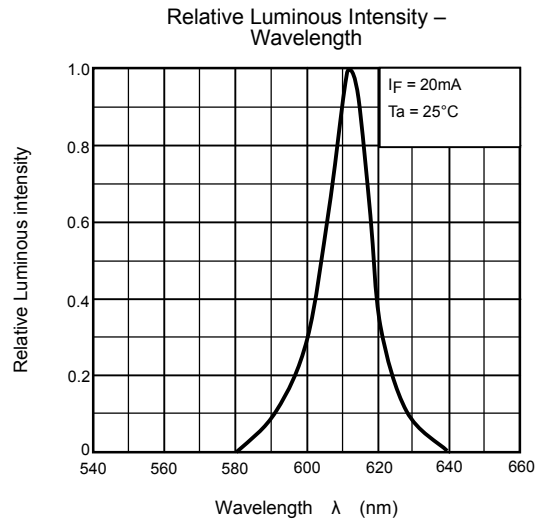
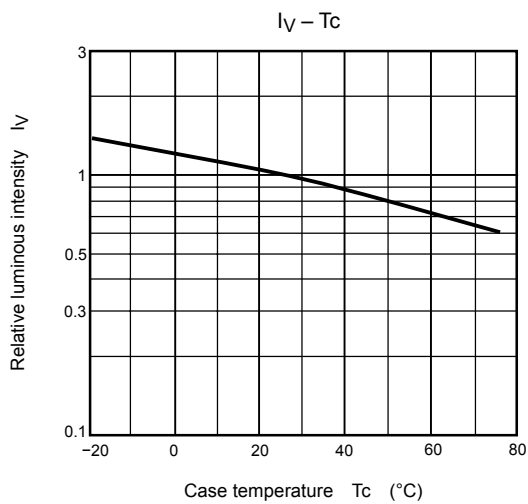
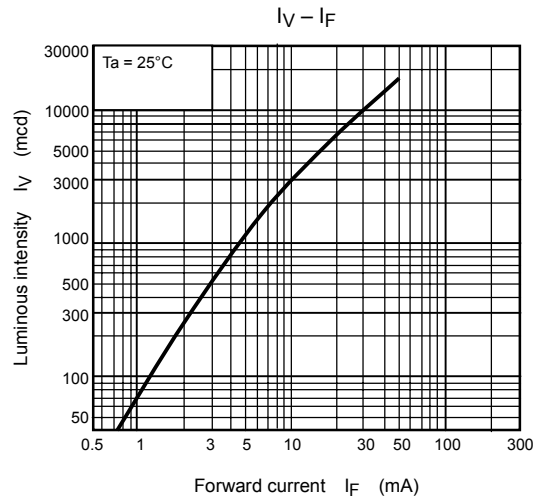
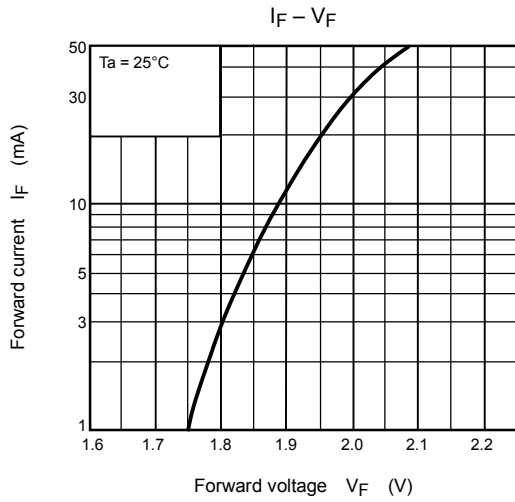
Measurement tolerance for each limit is $\pm 15\%$.

T: 1800–3600mcd, U: 3200–6400mcd, V: 5600–11200mcd, W: 8500–23000mcd.

Precaution

Please be careful of the followings

- Soldering temperature: 260°C max 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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