

TOSHIBA LED Lamp InGaAlP Orange Light Emission

# TLOE160A

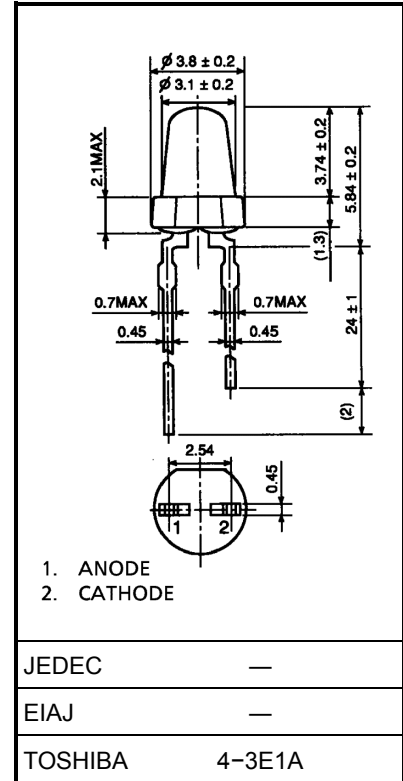
## Panel Circuit Indicator

- 3.1 mm diameter (T1)
- 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
- Applications: Suitable for safety equipment. Outdoor displays.

## 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: 0.14 g

## 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	$\mu\text{A}$	
Luminous intensity	TLOE160A	$I_V$	$I_F = 20 \text{ mA}$	(Note)	476	1500	—	mcd
	TLOE160A(ST)				850	—	4140	
Peak emission wavelength		$\lambda_p$	$I_F = 20 \text{ mA}$	—	612	—	nm	
Spectral line half width		$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	15	—	nm	
Dominant wavelength		$\lambda_d$	$I_F = 20 \text{ mA}$	—	605	—	nm	

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

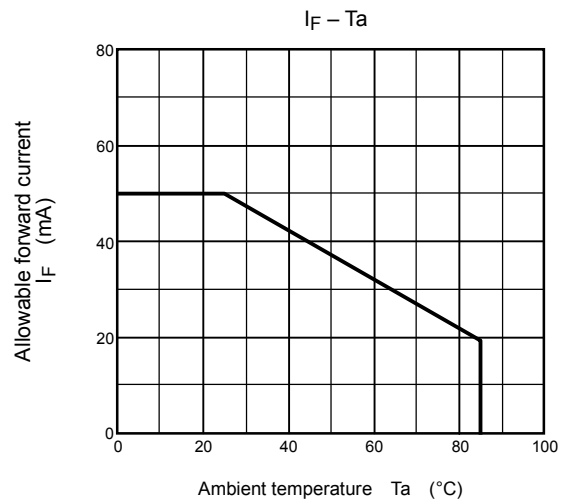
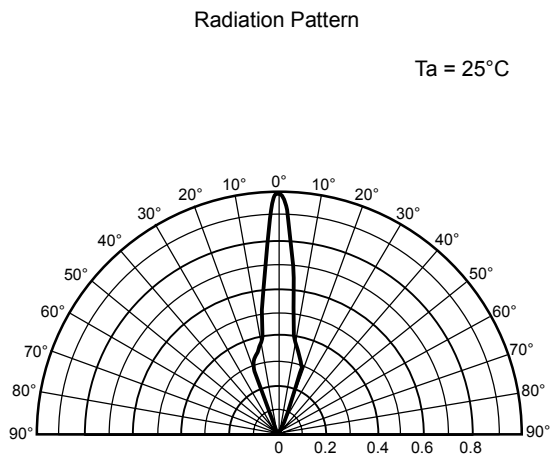
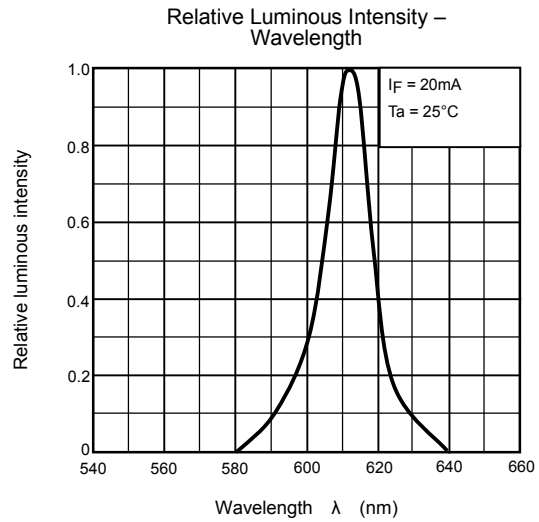
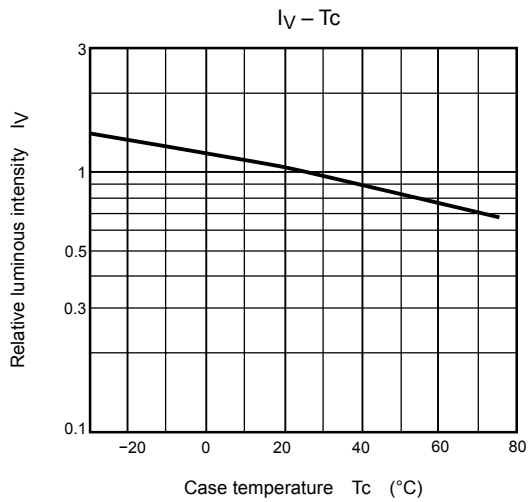
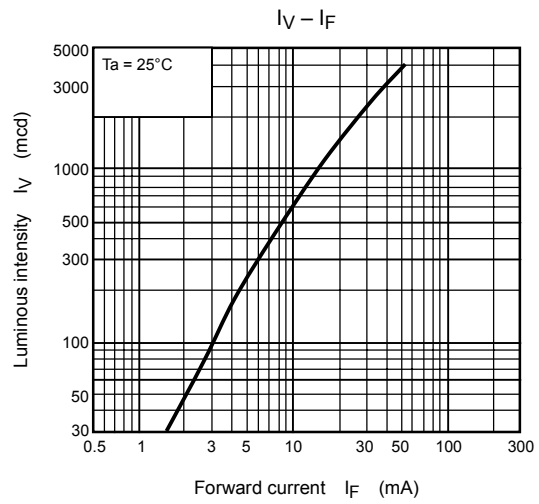
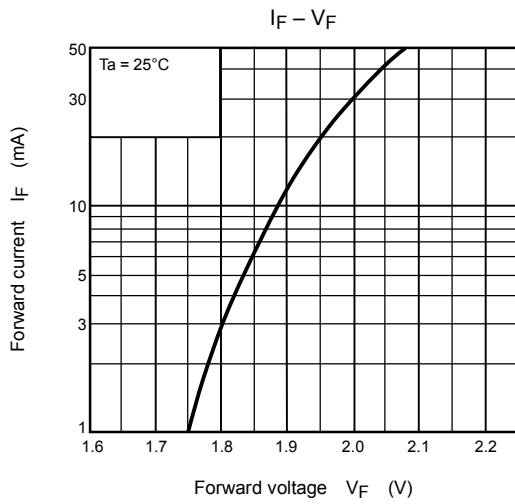
Measurement tolerance for each limit is  $\pm 15\%$ .

R: 560–1120mcd, S: 1000–2000mcd, T: 1800–3600mcd.

## 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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