

TOSHIBA LED LAMP InGaAlP ORANGE LIGHT EMISSION

**TLOH180P**

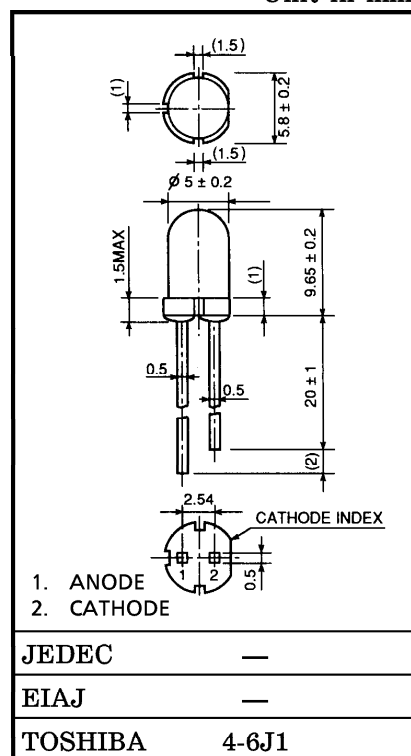
## PANEL CIRCUIT INDICATOR

- 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 :  $I_F = 1 \sim 20$  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 ( $T_a = 25^\circ\text{C}$ )

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	$T_{opr}$	$-30 \sim 85$	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	$-40 \sim 120$	$^\circ\text{C}$

Unit in mm



Weight : 0.31 g

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## ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage		$V_F$	$I_F = 20 \text{ mA}$	—	2.1	2.5	V
Reverse Current		$I_R$	$V_R = 4 \text{ V}$	—	—	50	$\mu\text{A}$
Luminous Intensity	TLOH180P	$I_V$	$I_F = 20 \text{ mA}$ (Note)	2720	10000	—	mcd
	TLOH180P (VW)			4760	—	23000	
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  $\pm 15\%$ .

U : 3200-6400 mcd, V : 5600-11200 mcd, W : 10000-20000 mcd.

## 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.

