

TENTATIVE

TOSHIBA LED LAMP InGaAlP YELLOW LIGHT EMISSION

TLYH247

PANEL CIRCUIT INDICATOR

- InGaAlP YELLOW LED
- Elliptical Lens : Colorless Clear Lens
- Wide Radiation
- Low Drive Current, High Intensity Yellow Light Emission
- Plastic Molded Colorless Clear Lens Provides for High Contrast of ON-OFF Ratio.
- Fast Response Time, Capable of Pulse Operation.
- APPLICATIONS : Suitable for Outdoor Message Signboard, Backlight.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current	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}	$-40\sim 120$	$^{\circ}\text{C}$

Technical drawing of a JEDEC TO-18 package showing top, side, and end views with dimensions.

Top View Dimensions:

- Overall width: 5.0 ± 0.2
- Overall height: 5.8 ± 0.2
- Radius of the top half: 8.25 ± 0.2
- Distance from the top edge to the base of the leads: $10.75^{+0.4}_{-0.1}$

Side View Dimensions:

- Overall height: 9.5 MAX
- Lead thickness: 0.5
- Lead width at the base: 2
- Lead width at the top: 2.54
- Distance from the top of the package to the base of the leads: 17.5 ± 1
- Distance from the top of the package to the base of the leads (alternative measurement): (2)

End View Dimensions:

- Overall width: 5.8 ± 0.2

Legend:

- 1. ANODE
- 2. CATHODE

JEDEC —

EIAJ —

TOSHIBA

Weight : 0.3 g

ELECTRICAL AND OPTICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

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	μA
Luminous Intensity	I_V	$I_F = 20 \text{ mA}$ (Note)	153	700	—	mcd
Peak Emission Wavelength	λ_P	$I_F = 20 \text{ mA}$	—	590	—	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	13	—	nm
Dominant Wavelength	λ_d	$I_F = 20 \text{ mA}$	—	587	—	nm

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

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

P : 180~360 mcd, Q : 320~640 mcd, R : 560~1120 mcd.

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PRECAUTION

Please be careful of the followings

- Soldering temperature : 260°C max Soldering time : 3 s max
(Soldering portion of lead : bellow the lead stopper)
- 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.

