

TENTATIVE

TOSHIBA LED LAMP InGaAlP RED LIGHT EMISSION

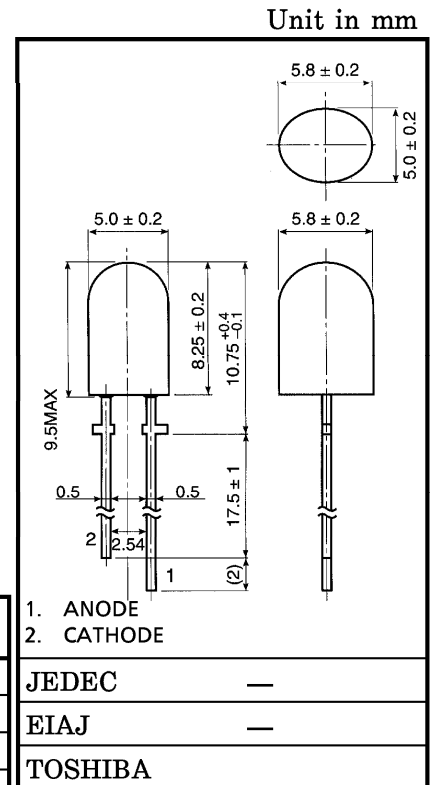
# TLRH247

PANEL CIRCUIT INDICATOR

- InGaAlP RED LED
- Elliptical Lens : Colorless Clear Lens
- Wide Radiation
- Low Drive Current, High Intensity Red 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, Full Color Panel, 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	$T_{opr}$	-30~85	°C
Storage Temperature Range	$T_{stg}$	-40~120	°C



JEDEC	—
EIAJ	—
TOSHIBA	

Weight : 0.3 g

ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage	$V_F$	$I_F = 20 \text{ mA}$	—	1.9	2.5	V
Reverse Current	$I_R$	$V_R = 4 \text{ V}$	—	—	50	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F = 20 \text{ mA}$ (Note)	153	450	—	mcd
Peak Emission Wavelength	$\lambda_p$	$I_F = 20 \text{ mA}$	—	644	—	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	18	—	nm
Dominant Wavelength	$\lambda_d$	$I_F = 20 \text{ mA}$	—	630	—	nm

(Note) : Lamps are classified into the following ranks according to their luminous intensity.  
 Measurement tolerance for each limit is  $\pm 15\%$ .  
 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.

