TOSHIBA LED Lamp InGaA{P Yellow Light Emission

# TLYH160

# Panel Circuit Indicator

- 3.1 mm diameter (T1)
- InGaAℓP yellow LED
- All plastic mold type.
- Colorless clear lens
- Low drive current, high intensity yellow light emission Recommended forward current: IF = 1~20 mA (DC)
- All plastic molded lens, provides an excellent on–off contrast ratio.
- Fast response time, capable of pulse operation.
- High power luminous intensity
- Applications: suitable for safety equipment. Outdoor displays.

Characteristic	Symbol	Rating	Unit	
Forward current (DC)	١ <sub>F</sub>	50	mA	
Reverse voltage	V <sub>R</sub>	4	V	
Power dissipation	PD	125	mW	
Operating temperature range	T <sub>opr</sub>	-30~85	°C	
Storage temperature range	T <sub>stg</sub>	-40~120	°C	

# Maximum Ratings (Ta = 25°C)



Weight: 0.14 g

Unit in mm

# **Electrical And Optical Characteristics (Ta = 25°C)**

Characteristic		Symbol	Test Condition		Min	Тур.	Max	Unit
Forward voltage		VF	I <sub>F</sub> = 20 mA		_	2.1	2.5	V
Reverse current		I <sub>R</sub>	V <sub>R</sub> = 4 V				50	μA
Luminous	TLYH160	- I <sub>V</sub>	I <sub>F</sub> = 20 mA	(Note)	850	4300	-	mcd
intensity	TLYH160 (TU)				1530		7360	
Peak emission wavelength		λ <sub>P</sub>	I <sub>F</sub> = 20 mA			590	_	nm
Spectral line half width Δλ		Δλ	I <sub>F</sub> = 20 mA			13	_	nm
Dominant wavelength		λ <sub>d</sub>	I <sub>F</sub> = 20 mA		-	587	_	nm

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

S: 1000–2000 mcd, T: 1800–3600 mcd, U: 3200–6400 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.

# **TOSHIBA**







Relative Luminous Intensity -Wavelength 1.0 IF=20mA Ta=25°C 0.8 Relative luminous intensity 0.6 0.4 0.2 0 540 560 580 600 620 640 660 Wavelength  $\lambda$  (nm)

Radiation Pattern







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