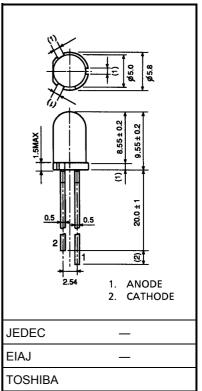
TOSHIBA LED Lamp InGaAlP Green Light Emission

# TLGE159P

#### Panel Circuit Indicator

• 5mm diameter (T1–3 / 4)

- InGaAℓP green LED
- All plastic mold type.
- Colorless clear lens
- Low drive current, high intensity green light emission Recommended forward current: IF=15~20mA(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, etc.



Weight: 0.31 g

# Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Forward current (DC)	١ <sub>F</sub>	50	mA
Revrse voltage	V <sub>R</sub>	4	V
Power dissipation	PD	140	mW
Operating temperature range	T <sub>opr</sub>	-30~85	°C
Storage temperature range	T <sub>stg</sub>	-40~120	°C

Unit in mm

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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	_	2.27	2.8	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 4V	_	_	50	μA
Luminous intensity	١ <sub>V</sub>	I <sub>F</sub> = 20mA (Note)	476	1700	_	mcd
Peak emission wavelength	λ <sub>p</sub>	I <sub>F</sub> = 20mA	_	574	_	nm
Spectral line half width	Δλ	I <sub>F</sub> = 20mA	_	11	_	nm
Dominant wavelengh	λ <sub>d</sub>	I <sub>F</sub> = 20mA	—	571		nm

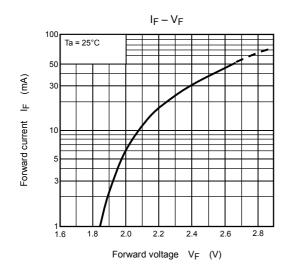
(Note): Lamps are classified into the following ranks according to their luminous intensity.
 Measurement tolerance for each limit is ±15%.
 R: 560–1120mcd, S: 1000–2000mcd, T: 1800–3600mcd

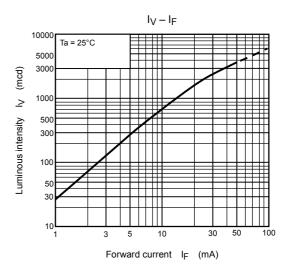
### Precaution

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.

# **TOSHIBA**

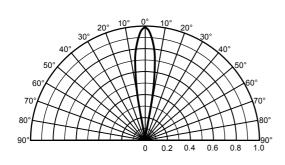


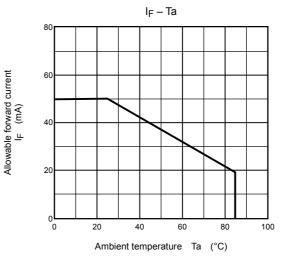


Relative Luminous Intensity – Wavelength 1.0 IF = 20mA Ta = 25°C 0.8 Relative luminous intensity 0.6 0.4 0.2 0 520 540 560 580 600 620 640 Wavelength  $\lambda$  (nm)

Radiation Pattern

Ta = 25°C





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