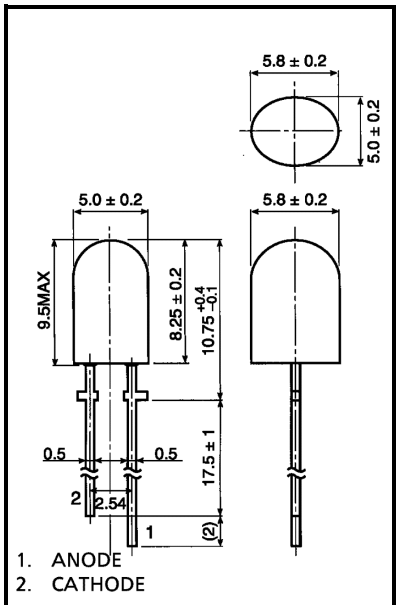
**TENTATIVE** TOSHIBA LED Lamp InGaAℓP Green Light Emission

# TLGE248

Panel Circuit Indicator

Unit in mm




TOSHIBA

Weight: 0.3g

- InGaAℓP green LED
- Elliptical lens: Colored transparent lens
- Wide radiation
- Low drive current,high intensity green light emission
- Plastic molded colored transparent 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 | $P_D$ | 140 | mW |
| Operating temperature range | $T_{opr}$ | −30~85 | °C |
| Storage temperature range | $T_{stg}$ | −40~120 | °C |

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

| Characteristic | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | $V_F$ | $I_F$=20mA | — | 2.27 | 2.8 | V |
| Reverse current | $I_R$ | VR=4V | — | — | 50 | μA |
| Luminous intensity | $I_V$ | $I_F$=20mA (Note) | 153 | 360 | — | mcd |
| Peak emission wavelength | $\lambda_P$ | $I_F$=20mA | — | 574 | — | nm |
| Spectral line half width | Δλ | $I_F$=20mA | — | 11 | — | nm |
| Dominant wavelength | λd | $I_F$=20mA | — | 571 | — | nm |

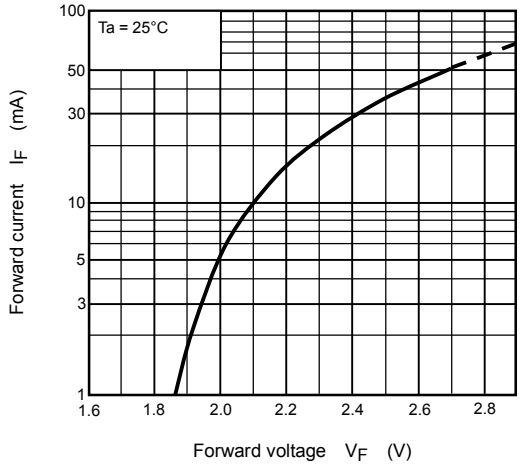
(Note): Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
P: 180~360mcd, Q: 320~640mcd, R: 560~1120mcd

## Precaution

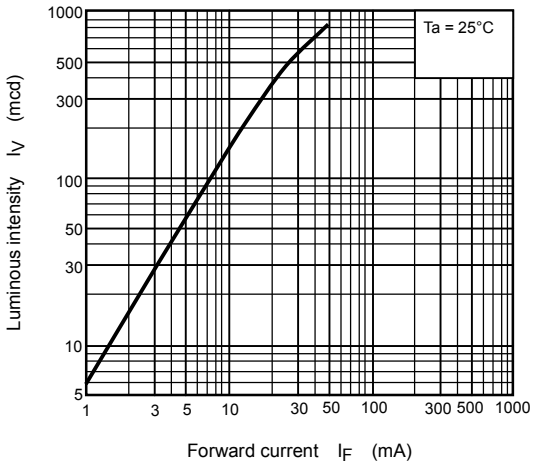
Please be careful of the followings

- Soldering temperature: 260°C max soldering time: 3 s max
  (Soldering portion of lead:below the lead stopper)
- If the lead is formed,the lead should be formed up to 5mm 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.

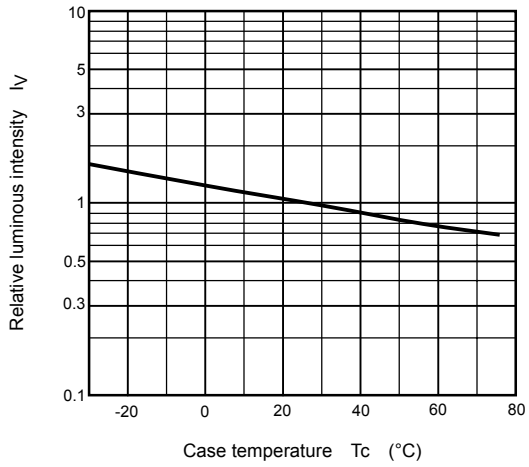
$I_F - V_F$



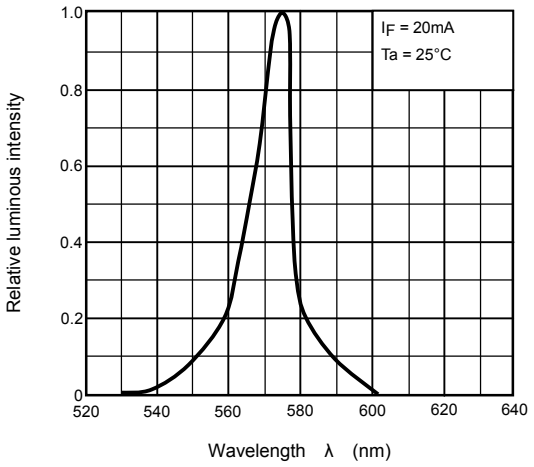

$I_V - I_F$



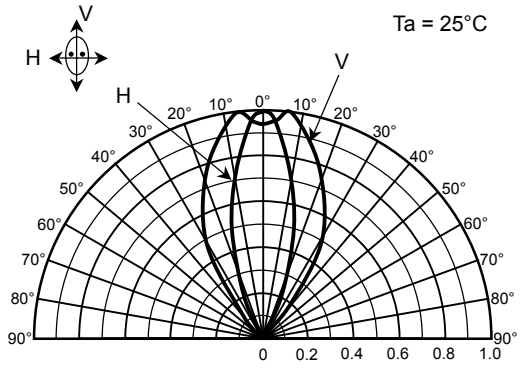

$I_V - Tc$



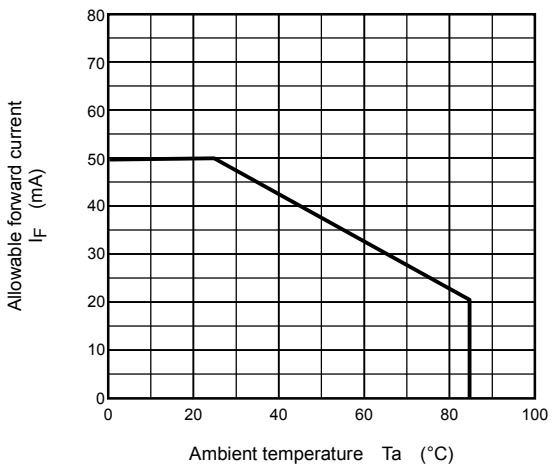

Relative Luminous Intensity – Wavelength




Radiation Pattern




$I_F - Ta$



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