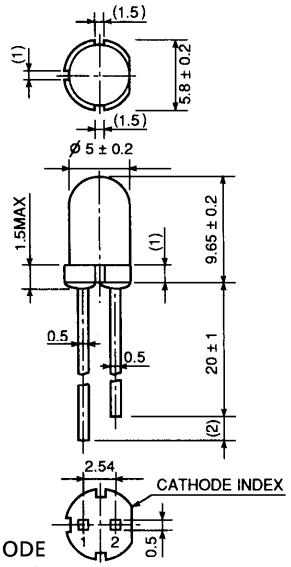
TOSHIBA LED LAMP InGaAℓP ORANGE LIGHT EMISSION

# TLOE180AP

PANEL CIRCUIT INDICATOR

Unit in mm




1. ANODE
2. CATHODE

| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 4-6J1 |

Weight : 0.31 g

- 5 mm DIAMETER (T1-3 / 4)
- InGaAℓP ORANGE LED
- All Plastic Mold Type.
- Colorless Clear Lens
- Low Drive Current, High Intensity Orange Light Emission
  Recommended Forward Current : $I_F$ = 15~20 mA (DC)
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Fast Response Time, Capable of Pulse Operation.
- High Power Luminous Intensity
- Without stand-offs
- APPLICATIONS : Suitable for Outdoor Message Signboard, Safety equipment.

MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|---|---|---|
| Forward Current (DC) | $I_F$ | 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 |

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|---|
| Forward Voltage | | $V_F$ | $I_F$ = 20 mA | — | 1.95 | 2.4 | V |
| Reverse Current | | $I_R$ | $V_R$ = 4 V | — | — | 50 | μA |
| Luminous Intensity | TLOE180AP | $I_V$ | $I_F$ = 20 mA (Note) | 1530 | 7000 | — | mcd |
| | TLOE180AP (UV) | | | 2720 | — | 12900 | |
| Peak Emission Wavelength | | $\lambda_p$ | $I_F$ = 20 mA | — | 612 | — | nm |
| Spectral Line Half Width | | $\Delta\lambda$ | $I_F$ = 20 mA | — | 15 | — | nm |
| Dominant Wavelength | | $\lambda_d$ | $I_F$ = 20 mA | — | 605 | — | nm |

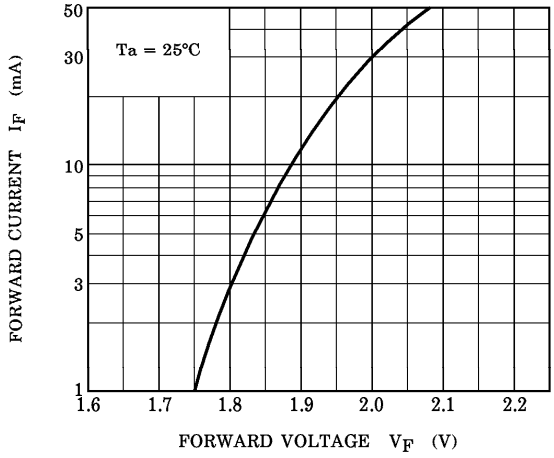
(Note) : Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
T : 1800-3600 mcd, U : 3200-6400 mcd, V : 5600-11200 mcd, W : 8500-23000 mcd.

PRECAUTION

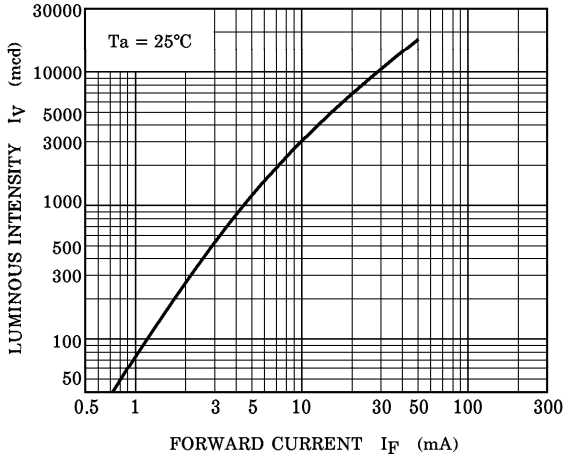
Please be careful of the followings

- 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.

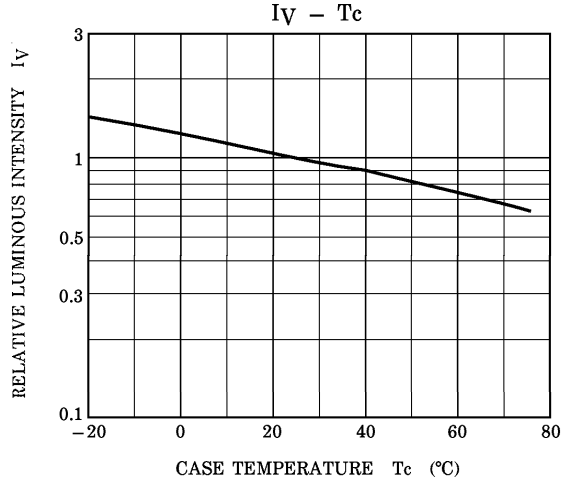
$I_F - V_F$



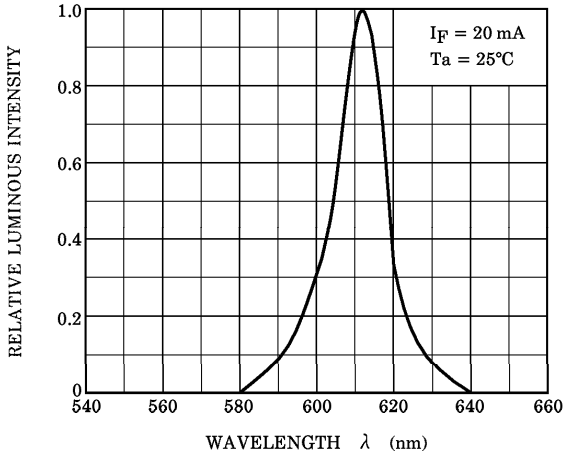

$I_V - I_F$




$I_V - Tc$

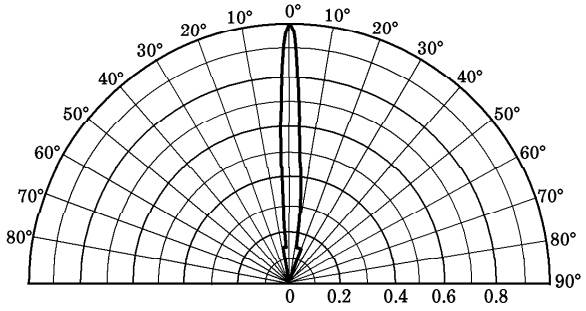



RELATIVE LUMINOUS INTENSITY − WAVELENGTH




RADIATION PATTERN

Ta = 25°C




$I_F - Ta$