

TOSHIBA LED LAMP InGaAlP ORANGE LIGHT EMISSION

TLOE180AP

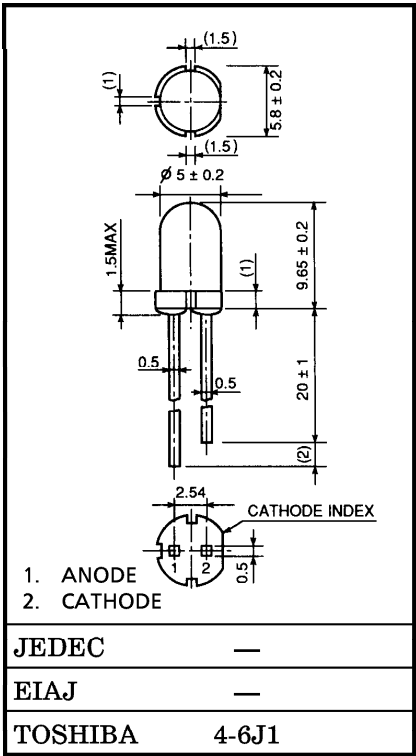
PANEL CIRCUIT INDICATOR

- 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 :  $I_F = 15 \sim 20$  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 ( $T_a = 25^{\circ}\text{C}$ )

| 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 | $T_{opr}$ | $-30 \sim 85$  | $^{\circ}\text{C}$ |
| Storage Temperature Range   | $T_{stg}$ | $-40 \sim 120$ | $^{\circ}\text{C}$ |

Unit in mm



Weight : 0.31 g

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## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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

(Note) : Lamps are classified into the following ranks according to their luminous intensity.

Measurement tolerance for each limit is  $\pm 15\%$ .

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.

