**TENTATIVE** 

TOSHIBA InGaAℓP LED

# **TLOU123, TLSU123, TLYU123**

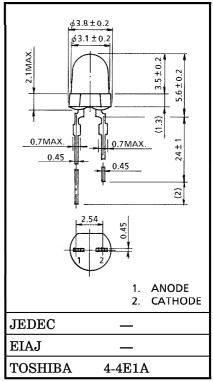
PANEL CIRCUIT INDICATOR

Unit in mm

- InGaAℓP LED
- All Plastic Mold Type
- Colored Transparent Lens
- Lineup: 3 Colors (Red, Orange, Yellow)
- Suitable for High-Brightness and Less Electricity Consumption.
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Applications: Backlight, Light for Decoration, Switches,
  Various Indicator, Personal Equipment

#### LINEUP

| PRODUCT | COLOR  | MATERIAL |  |  |
|---------|--------|----------|--|--|
| TLOU123 | ORANGE | InGaAℓP  |  |  |
| TLSU123 | RED    | InGaAℓP  |  |  |
| TLYU123 | YELLOW | InGaAℓP  |  |  |



Weight: 0.14 g

# MAXIMUM RATINGS (Ta = 25°C)

| PRODUCT | FORWARD<br>CURRENT<br>I <sub>F</sub> (mA) | REVERSE<br>VOLTAGE<br>$V_R$ (V) | POWER<br>DISSIPATION<br>PD (mW) | $\begin{array}{c} \text{OPERATING} \\ \text{TEMPERATURE} \\ \text{T}_{\text{opr}} \text{ (°C)} \end{array}$ | $\begin{array}{c} {\rm STORAGE} \\ {\rm TEMPERATURE} \\ {\rm T_{stg}} \ (^{\circ}{\rm C}) \end{array}$ |
|---------|---|---------------------------------|---------------------------------|---|--|
| TLOU123 | 30  | 4                               | 72                              | -20~75  | -30~100  |
| TLSU123 | 30  | 4                               | 72                              | -20~75  | -30~100  |
| TLYU123 | 30  | 4                               | 75                              | -20~75  | -30~100  |

# ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

| PRODUCT | TYP. EMISSION<br>WAVELENGTH |    | LUMINOUS<br>INTENSITY<br>I <sub>V</sub> |     | $\begin{array}{c} \text{FORWARD} \\ \text{VOLTAGE} \\ \text{V}_{\text{F}} \end{array}$ |                  | $\begin{array}{c} \text{REVERSE} \\ \text{CURRENT} \\ \text{I}_{\text{R}} \end{array}$ |     |                  |         |         |
|---------|-----------------------------|----|---|-----|--|------------------|--|-----|------------------|---------|---------|
|         | λp                          | Δλ | $I_{\mathbf{F}}$                        | MIN | TYP.   | $I_{\mathbf{F}}$ | TYP.   | MAX | $I_{\mathbf{F}}$ | MAX     | $v_{R}$ |
| TLOU123 | 612                         | 15 | 20                                      | 85  | 400  | 20               | 2.0  | 2.4 | 20               | 50      | 4       |
| TLSU123 | 636                         | 17 | 20                                      | 85  | 270  | 20               | 2.0  | 2.4 | 20               | 50      | 4       |
| TLYU123 | 590                         | 13 | 20                                      | 85  | 220  | 20               | 2.1  | 2.5 | 20               | 50      | 4       |
| UNIT    | n                           | m  | mA                                      | m   | cd   | mA               | 7  | I   | mA               | $\mu$ A | V       |

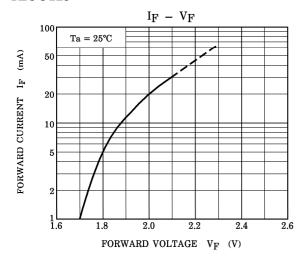
# **PRECAUTION**

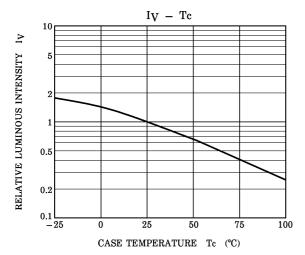
Please be careful of the followings

- 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.

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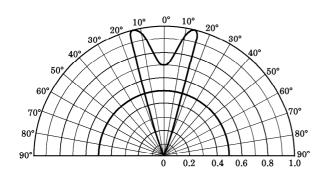
## TLOU123

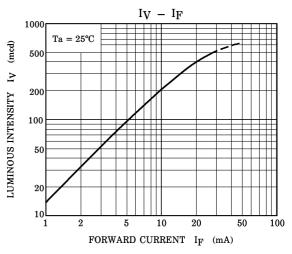


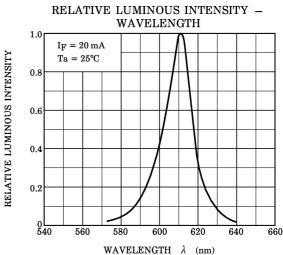


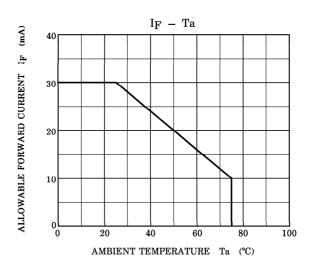
#### RADIATION PATTERN

Ta = 25°C

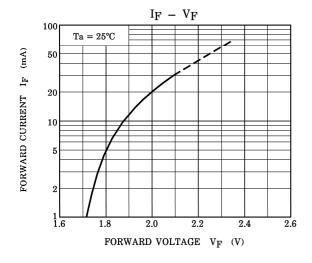


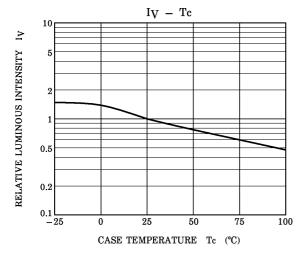






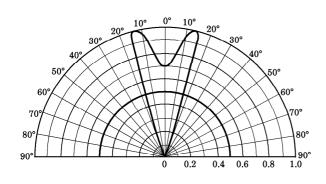
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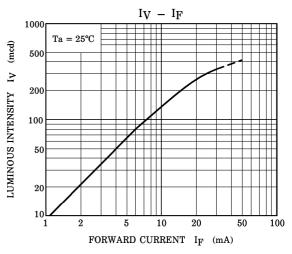


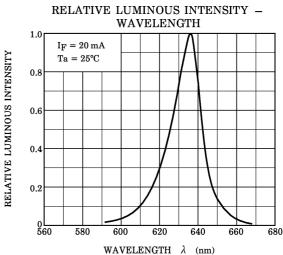


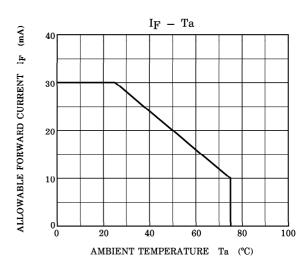
#### RADIATION PATTERN

Ta = 25°C

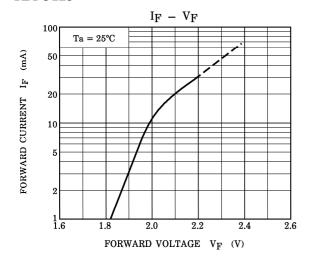


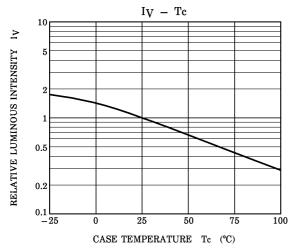






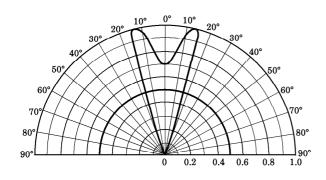
# **TLYU123**

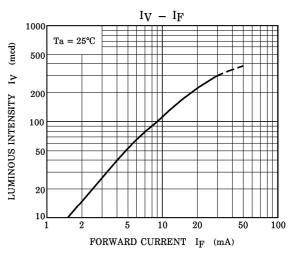


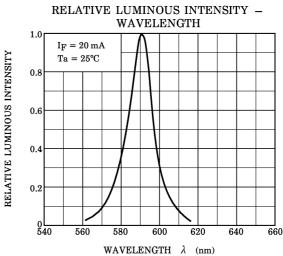


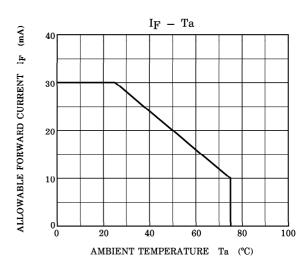
#### RADIATION PATTERN

Ta = 25°C









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