## **TOSHIBA**

# **TENTATIVE**

TOSHIBA InGaA<sub>l</sub>P LED

# **TLOU123, TLSU123, TLYU123**

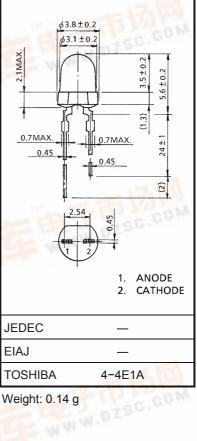
## Panel Circuit Indicator

- 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	InGaA{P		
TLSU123	Red	InGaA{P		
TLYU123	Yellow	InGaAlP		

#### Unit in mm



Weight: 0.14 g

## Maximum Ratings (Ta = 25°C)

Product	Forward Current I <sub>F</sub> (mA)	Reverse Voltage V <sub>R</sub> (V)	Power Dissipation P <sub>D</sub> (mW)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stq</sub> (°C)
TLOU123	30	4	72	-20~75	-30~100
TLSU123	30	4	72	-20~75	-30~100
TLYU123	30	4	75	-20~75	-30~100



2002-09-25

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

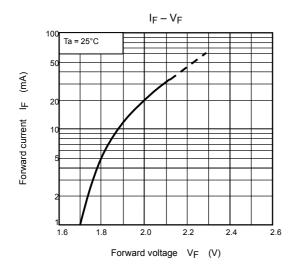
Product	Typ. Emission Wavelength		Luminous Intensity I <sub>V</sub>		Forward Voltage VF		Reverse Current IR				
	$\lambda_{P}$	Δλ	I <sub>F</sub>	Min	Typ.	I <sub>F</sub>	Тур.	Max	I <sub>F</sub>	Max	V <sub>R</sub>
TLOU123	612	15	20	85	400	20	2.0	2.4	20	50	4
TLSU123	636	17	20	85	270	20	2.0	2.4	20	50	4
TLYU123	590	13	20	85	220	20	2.1	2.5	20	50	4
Unit	n	m	mA	m	cd	mA	\	/	mA	μΑ	V

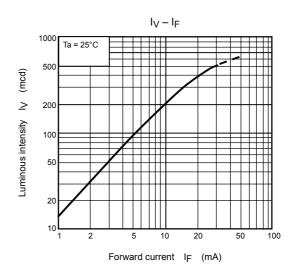
### **Precaution**

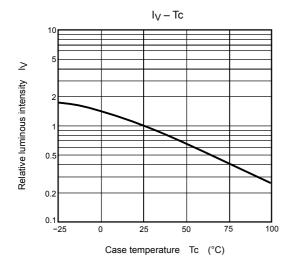
Please be careful of the followings

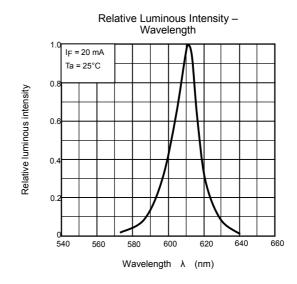
- Soldering temperature: 260°C max Soldering time: 3 s max (soldering portion of lead: Up to 2 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 5 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.
- 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.

TLOU123



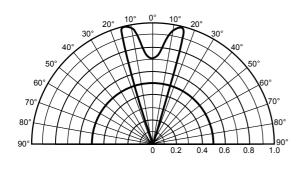


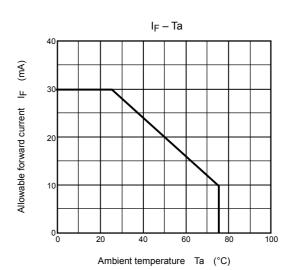




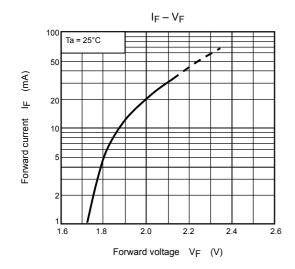


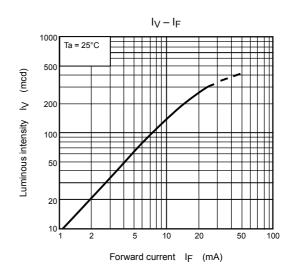
Ta = 25°C

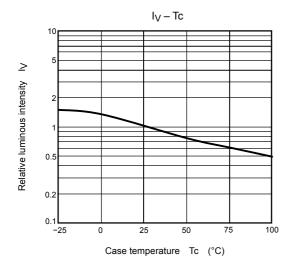


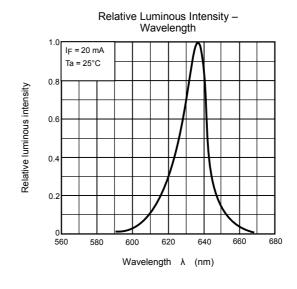


TLSU123



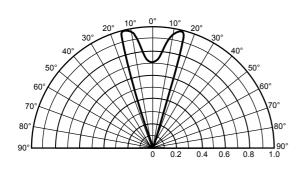


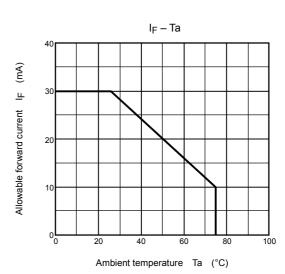




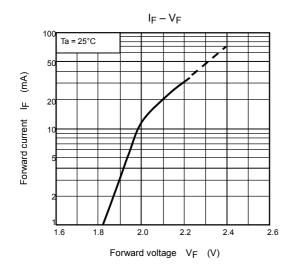


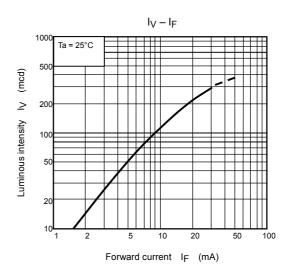
Ta = 25°C

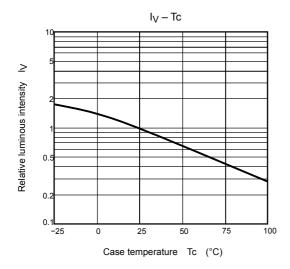


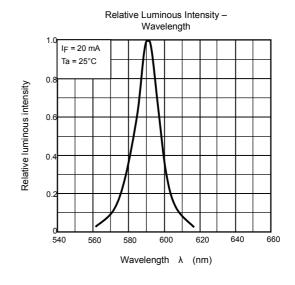


TLYU123



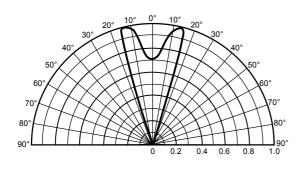


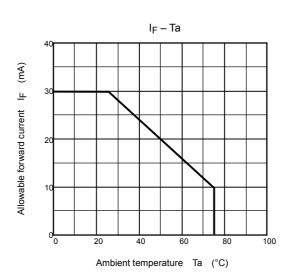




Radiation Pattern

Ta = 25°C





## RESTRICTIONS ON PRODUCT USE

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