

TENTATIVE

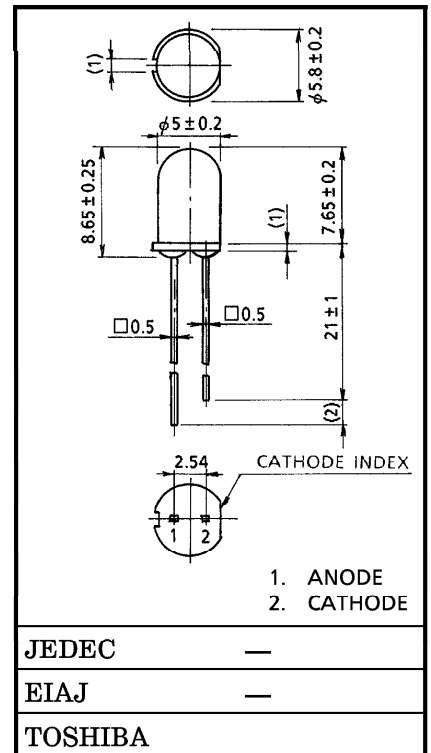
TOSHIBA InGaAlP LED

TLOU113P, TLSU113P, TLYU113P

PANEL CIRCUIT INDICATOR

Unit in mm

- InGaAlP LED
- Without stand-offs
- 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
TLOU113P	ORANGE	InGaAlP
TLSU113P	RED	InGaAlP
TLYU113P	YELLOW	InGaAlP

MAXIMUM RATINGS (Ta = 25°C)

PRODUCT	FORWARD CURRENT I _F (mA)	REVERSE VOLTAGE V _R (V)	POWER DISSIPATION P _D (mW)	OPERATING TEMPERATURE T _{opr} (°C)	STORAGE TEMPERATURE T _{stg} (°C)
TLOU113P	30	4	72	-20~75	-30~100
TLSU113P	30	4	72	-20~75	-30~100
TLYU113P	30	4	75	-20~75	-30~100



For part availability and ordering information please call Toll Free: 800.984.5337
 Website: www.marktechopto.com | Email: info@marktechopto.com

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

PRODUCT	TYP. EMISSION WAVELENGTH			LUMINOUS INTENSITY I _V			FORWARD VOLTAGE V _F			REVERSE CURRENT I _R	
	λ _p	Δλ	I _F	MIN	TYP.	I _F	TYP.	MAX	I _F	MAX	V _R
TLOU113P	612	15	20	153	900	20	2.0	2.4	20	50	4
TLSU113P	636	17	20	153	550	20	2.0	2.4	20	50	4
TLYU113P	590	13	20	153	500	20	2.1	2.5	20	50	4
UNIT	nm		mA	mcd		mA	V		mA	μA	V

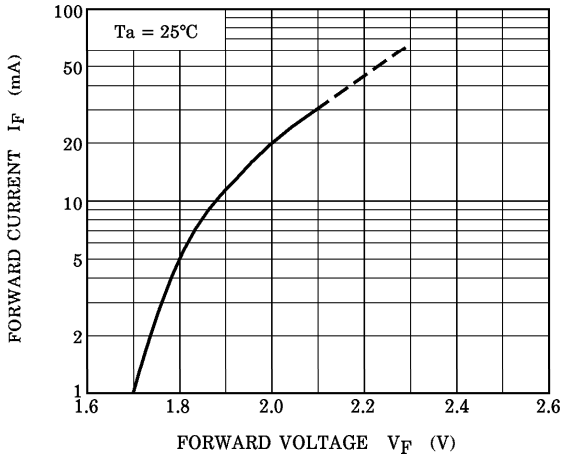
PRECAUTION

Please be careful of the followings

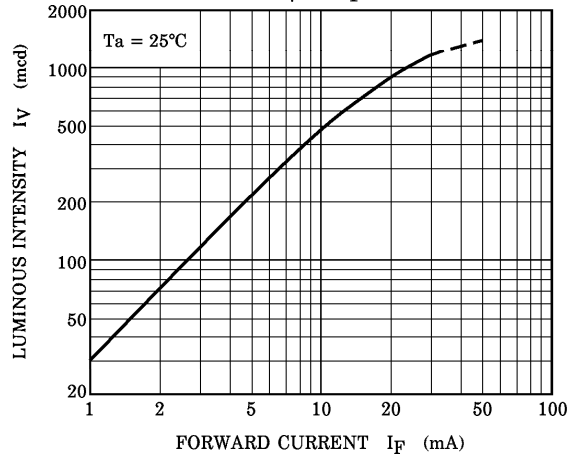
- Soldering temperature : 260°C max Soldering time : 3 s max
(Soldering portion of lead : up to 2 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 5 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.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

TLOU113P

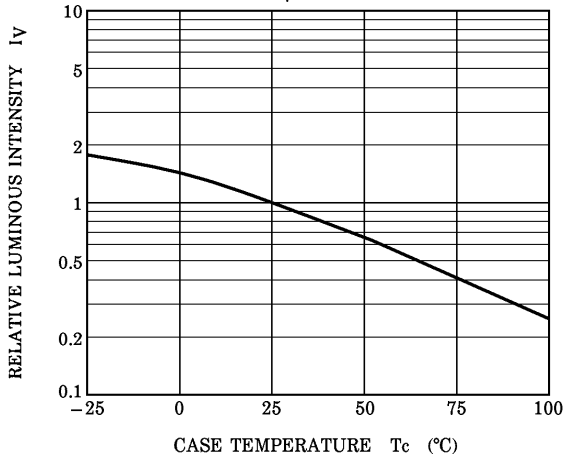
$I_F - V_F$



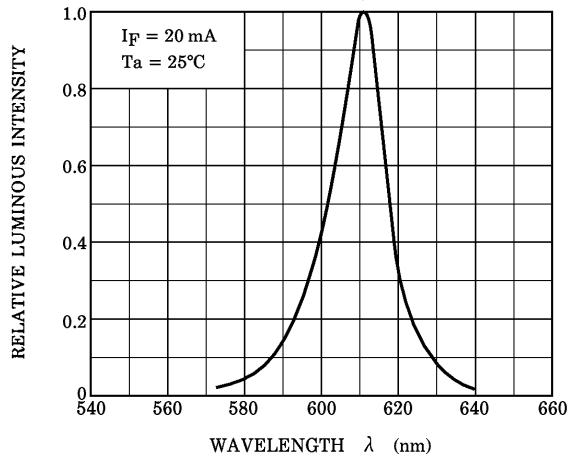
$I_V - I_F$



$I_V - T_c$

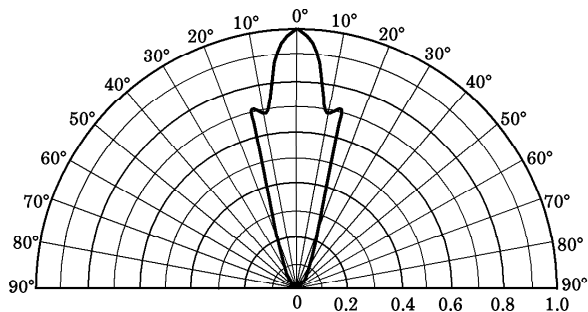


RELATIVE LUMINOUS INTENSITY - WAVELENGTH

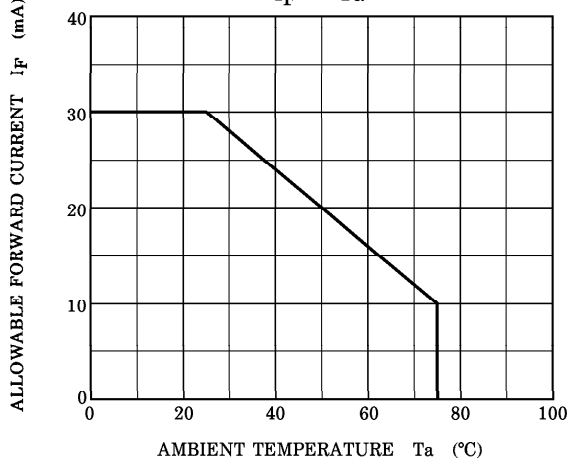


RADIATION PATTERN

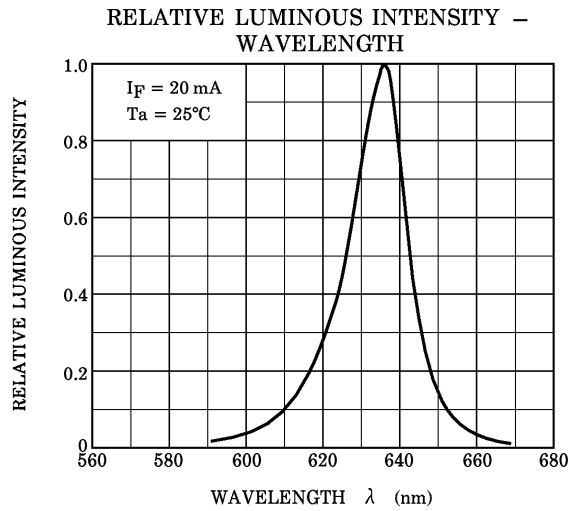
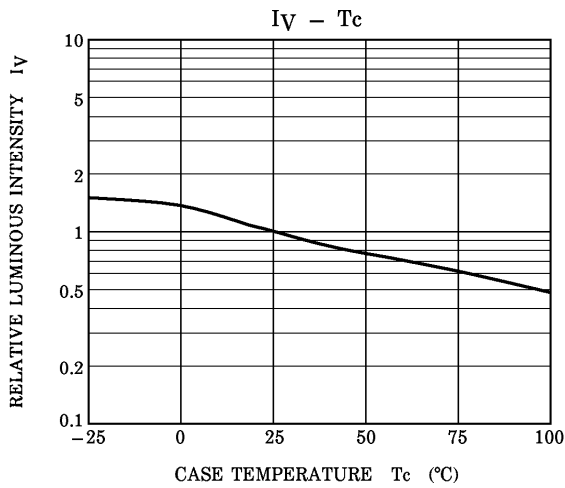
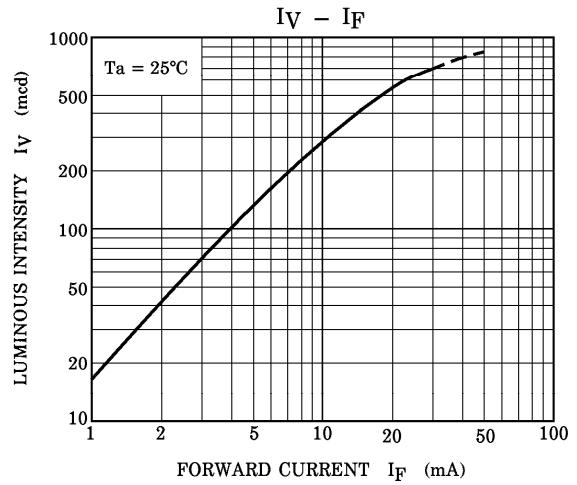
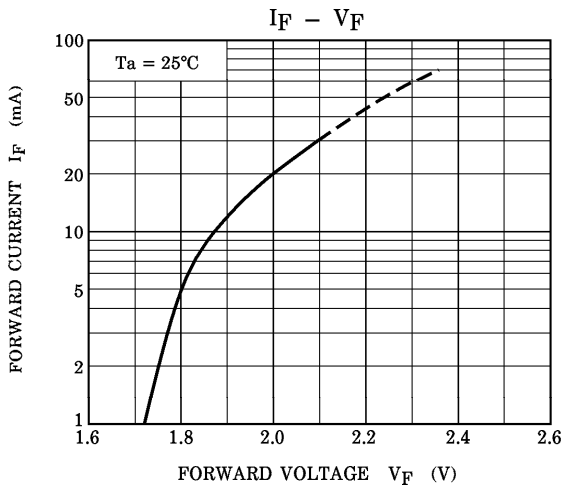
$T_a = 25^\circ\text{C}$



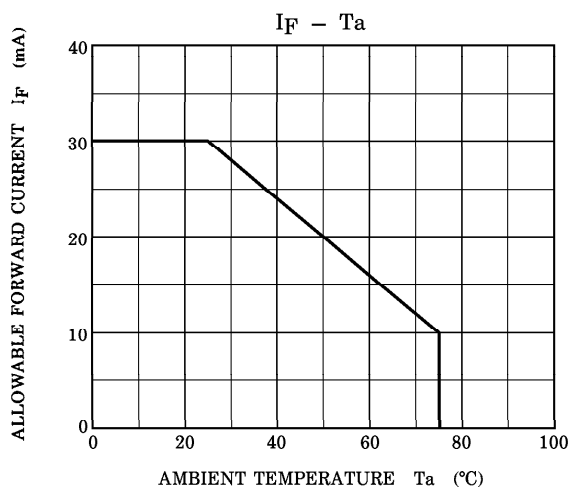
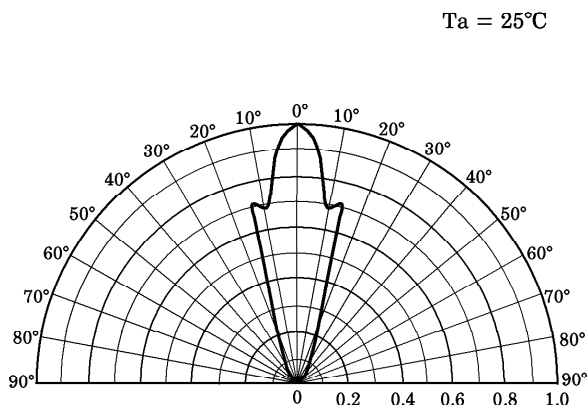
$I_F - T_a$



TLSU113P

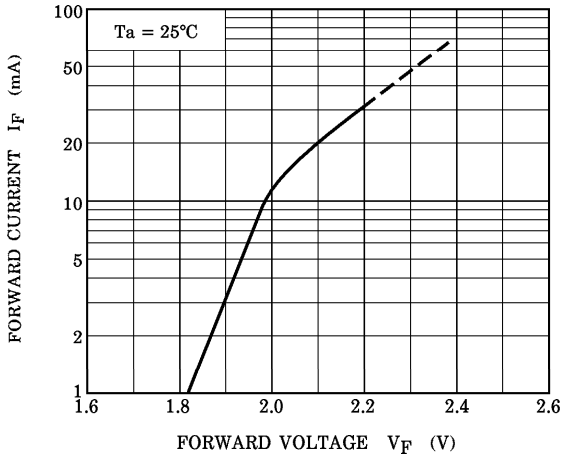


RADIATION PATTERN

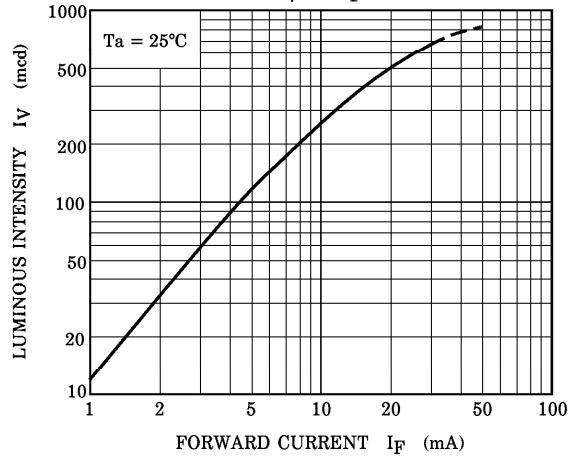


TLYU113P

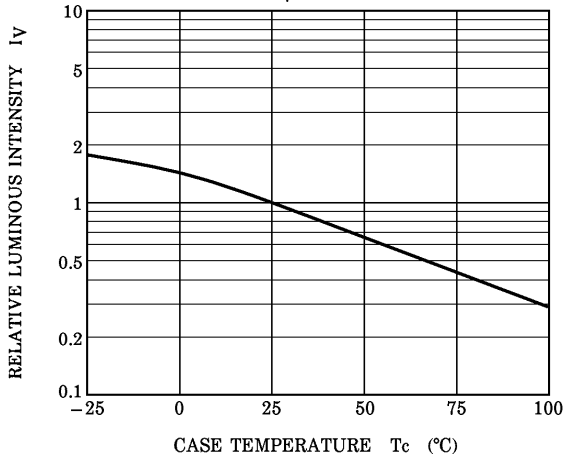
$I_F - V_F$



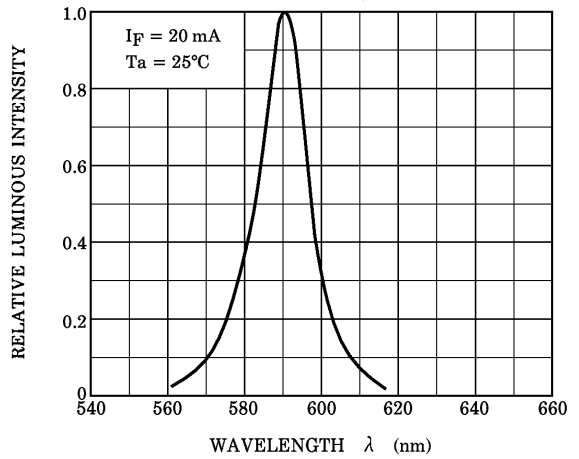
$I_V - I_F$



$I_V - T_c$

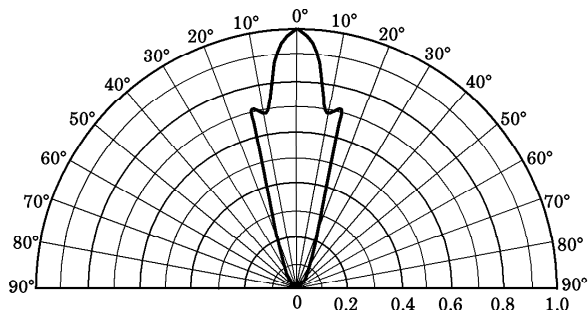


RELATIVE LUMINOUS INTENSITY - WAVELENGTH



RADIATION PATTERN

$T_a = 25^\circ\text{C}$



$I_F - T_a$

