TENTATIVE

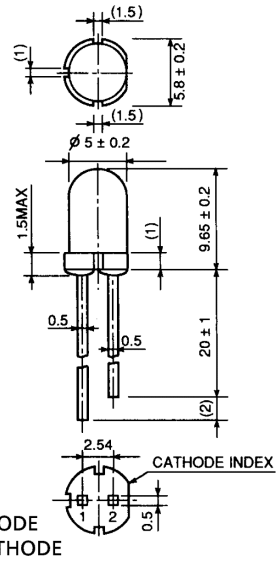
TOSHIBA InGaAℓP LED

TLOU180P,TLSU180P,TLYU180P

Panel Circuit Indicator

Unit in mm

- InGaAℓP LED
- Without stand−offs
- All plastic mold type
- Colorless clear 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



JEDEC	—
EIAJ	—
TOSHIBA	4−6J1

Weight: 0.31 g

Lineup

Product	Color	Material
TLOU180P	Orange	InGaAℓP
TLSU180P	Red	InGaAℓP
TLYU180P	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)
TLOU180P	30	4	72	−30~85	−40~120
TLSU180P	30	4	72	−30~85	−40~120
TLYU180P	30	4	75	−30~85	−40~120

Electrical And Optical Characteristics(Ta = 25°C)

Product	Typ. Emission Wavelength			Luminous Intensity I_V			Forward Voltage V_F			Reverse Current I_R	
	λ_P	$\Delta\lambda$	I_F	Min	Typ.	I_F	Typ.	Max	I_F	Max	V_R
TLOU180P	612	15	20	850	7000	20	2.0	2.4	20	50	4
TLSU180P	636	17	20	850	4500	20	2.0	2.4	20	50	4
TLYU180P	590	13	20	850	4300	20	2.1	2.5	20	50	4
Unit	nm		mA	mcd		mA	V		mA	μA	V

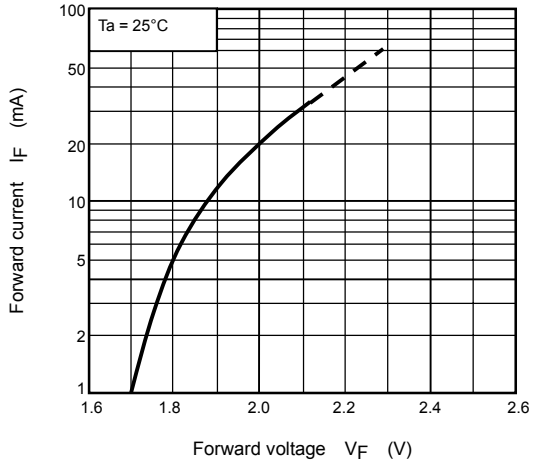
Precaution

Please be careful of the followings

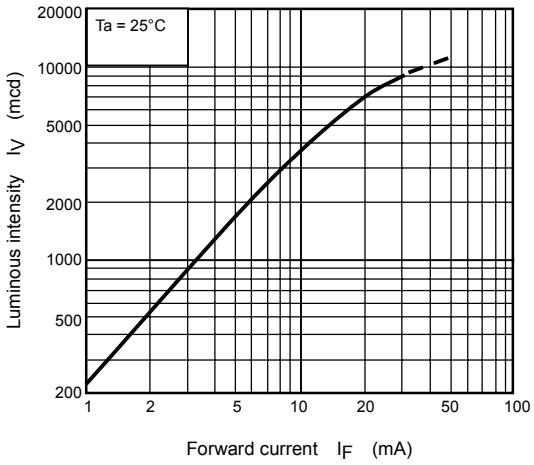
- Soldering temperature: 260°C max Soldering time: 3 s max
  (Soldering portion of lead: Up to 2 mm from the body of the device)
- If the lead is formed,the lead should be formed up to 5 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.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

TLOU180P

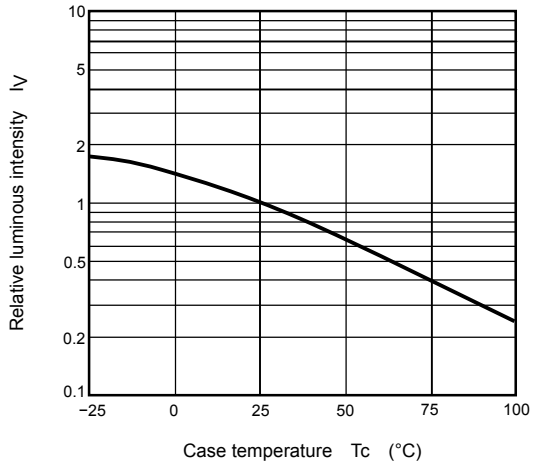
$I_F - V_F$



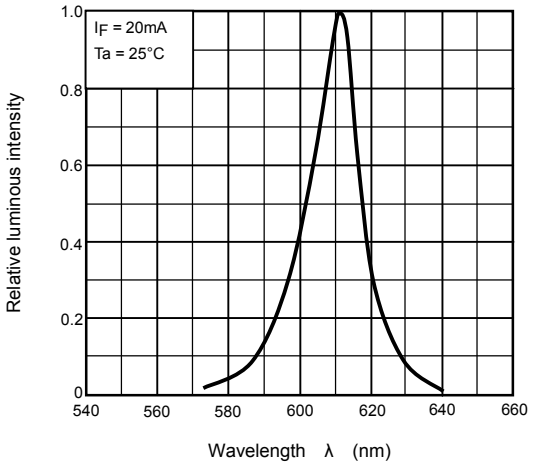
$I_V - I_F$



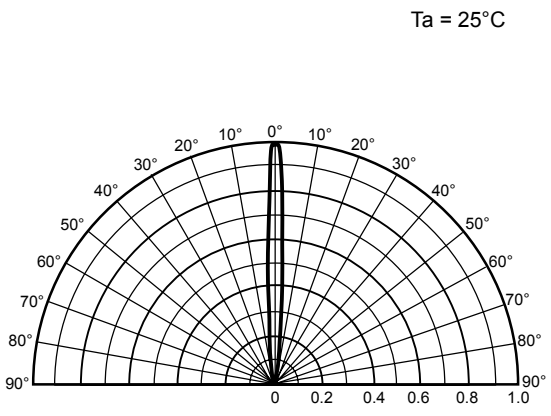
$I_V - Tc$



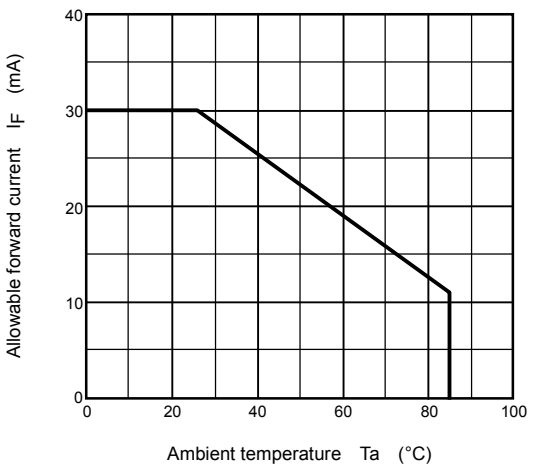
Relative Luminous Intensity-Wavelength



Radiation Pattern

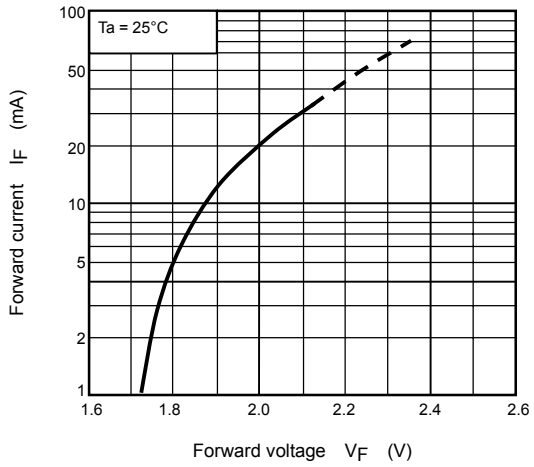


$I_F - Ta$

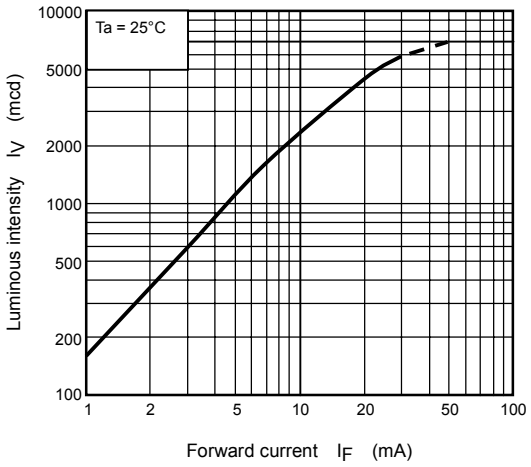


TLSU180P

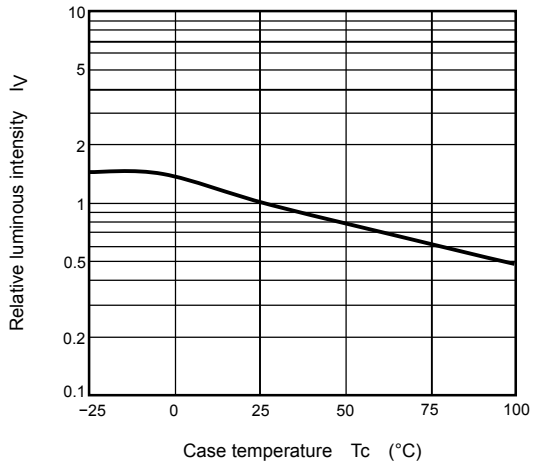
$I_F - V_F$



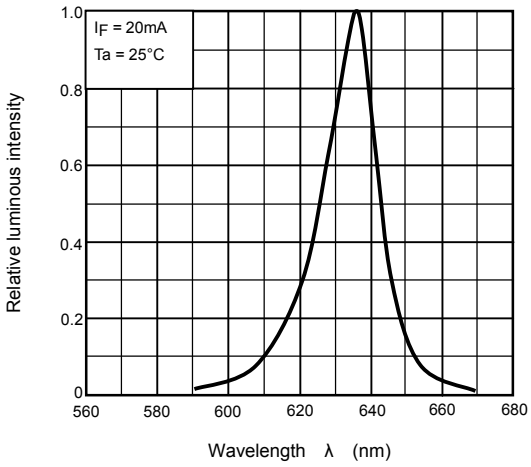
$I_V - I_F$



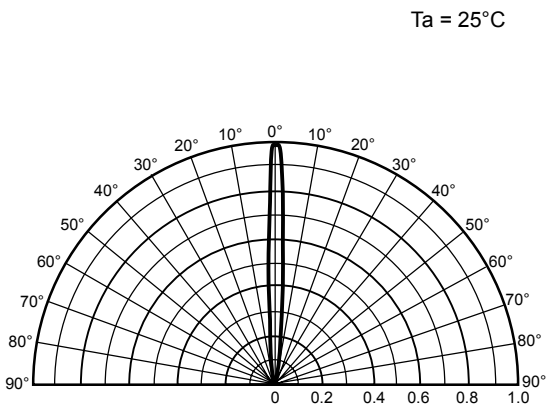
$I_V - Tc$



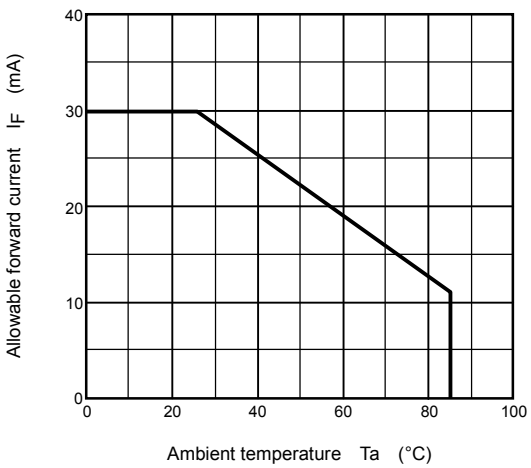
Relative Luminous Intensity-Wavelength



Radiation Pattern

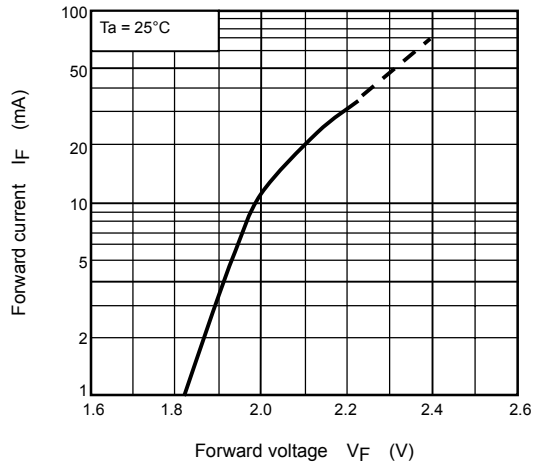


$I_F - Ta$

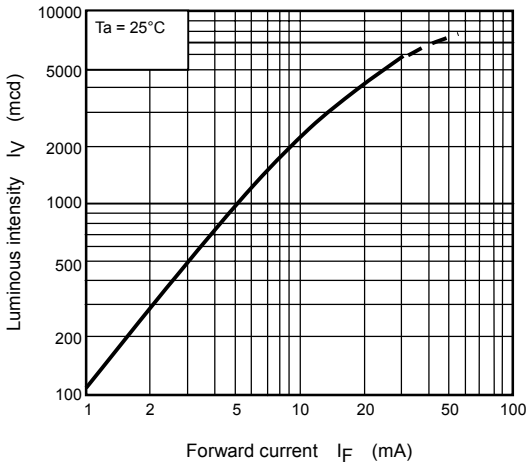


TLYU180P

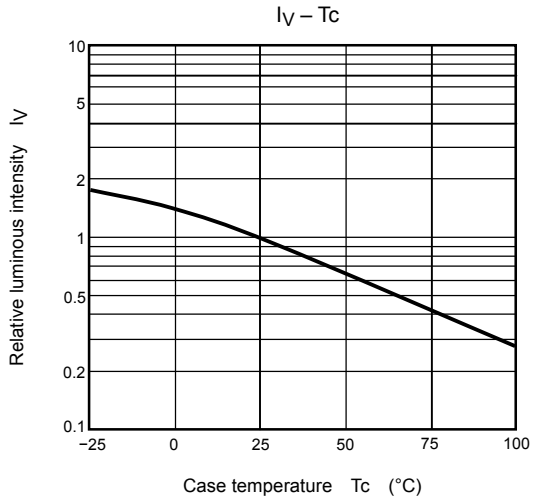
$I_F - V_F$



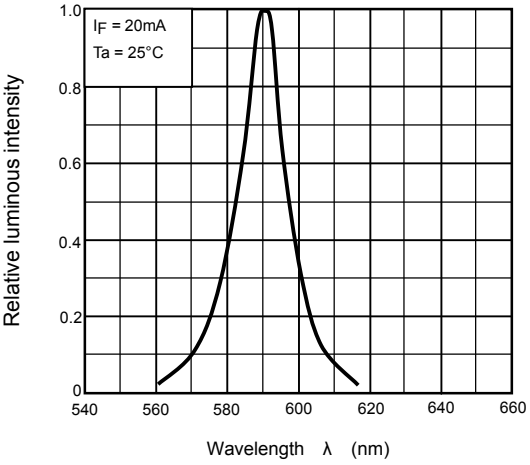
$I_V - I_F$



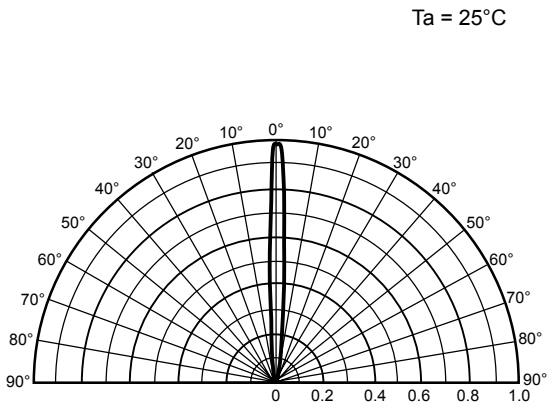
$I_V - Tc$



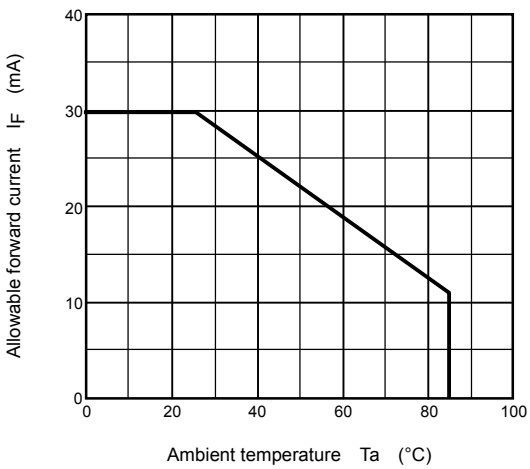
Relative Luminous Intensity-Wavelength



Radiation Pattern



$I_F - Ta$



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