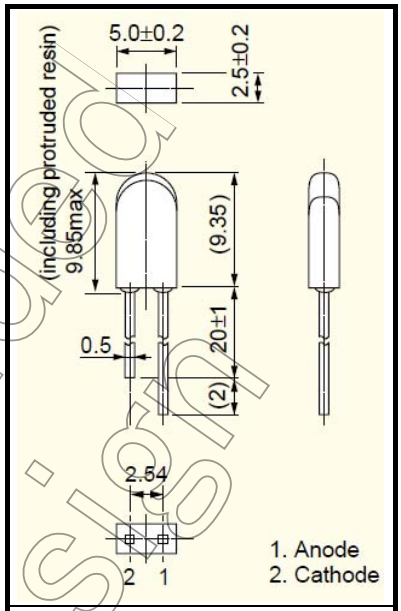
TOSHIBA InGaAℓP LED

TLGE33TP(F)

Panel Circuit Indicators

Unit: mm

- 2.5 mm × 5 mm package
- InGaAℓP technology
- Transparent lens
- High luminous intensity
- A leaded LED with a stopper is also available: TLGE33T(F)



JEDEC	—
JEITA	—
TOSHIBA	4-5AG2

Weight: 0.23 g (typ.)

Color and Material

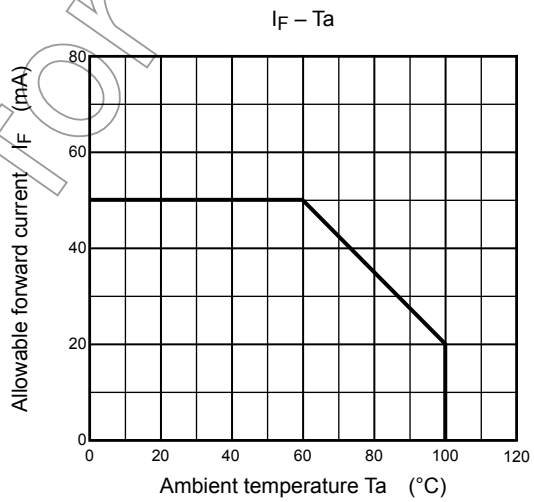
Part Number	Color	Material
TLGE33TP(F)	green	InGaAℓP

Absolute Maximum Ratings (Ta = 25°C)

Part Number	Forward Current I_F (mA) (Note 1)	Reverse Voltage V_R (V)	Power Dissipation P_D (mW)	Operating Temperature T_{opr} (°C)	Storage Temperature T_{stg} (°C)
TLGE33TP(F)	50	4	120	−40 to 100	−40 to 120

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook (“Handling Precautions”/“Derating Concept and Methods”) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Note 1: Forward current derating



Electrical and Optical Characteristics (Ta = 25°C)

Part Number	Typ. Emission Wavelength (Note 2)				Luminous Intensity I_V (Note 2)			Forward Voltage V_F			Reverse Current I_R	
	λ_d	λ_P	$\Delta\lambda$	I_F	Min	Typ.	I_F	Typ.	Max	I_F	Max	V_R
TLGE33TP(F)	571	574	17	20	476	1300	20	2.0	2.4	20	50	4
Unit	nm			mA	mcd		mA	V		mA	μA	V

Note 2: Lamps are classified into the following ranks according to their luminous intensity.
Each packing box includes single Luminous Intensity class.
I_V rank R: 476 – 1290 mcd, S: 850 – 2300 mcd, T: 1530 mcd –
λ_d rank 1: 565 – 573 nm, 2: 569 – 576 nm

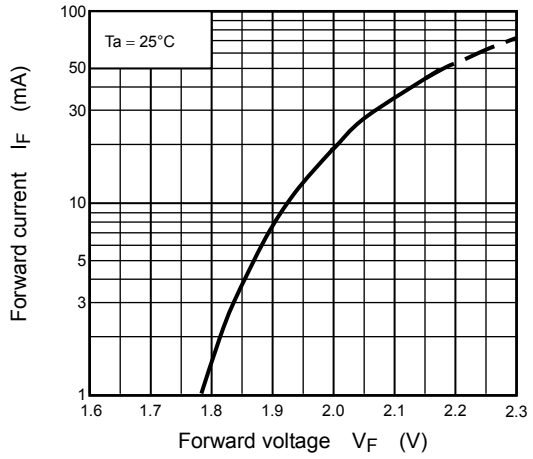
Precautions

Please be careful of the following:

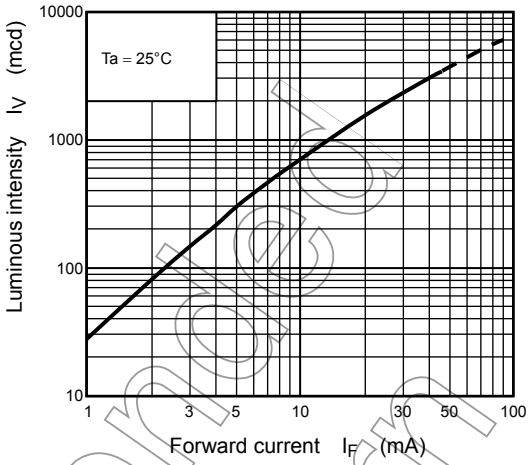
- Soldering temperature: 260°C max, soldering time: 3 s max
  (soldering portion of lead: up to 1.6 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 1.6 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead 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.

TLGE33TP(F)

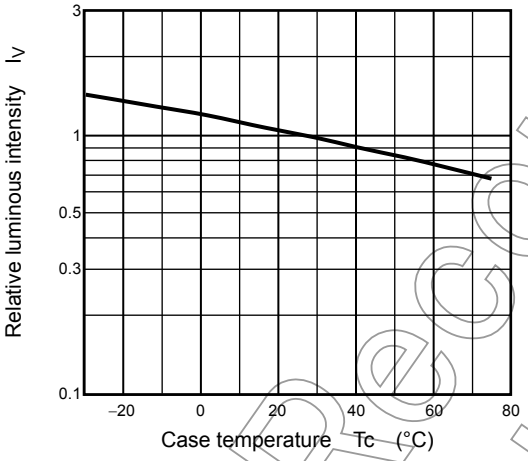
$I_F - V_F$



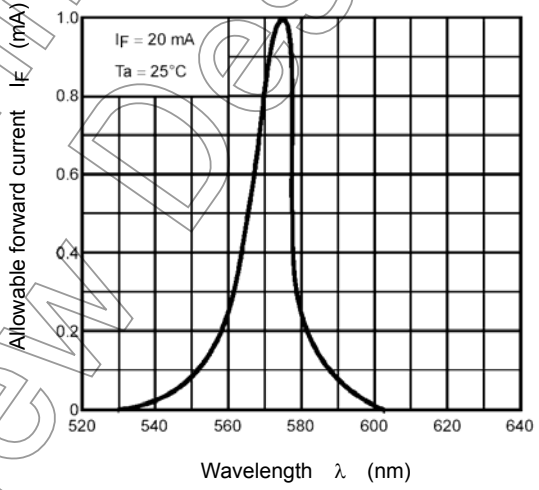
$I_V - I_F$



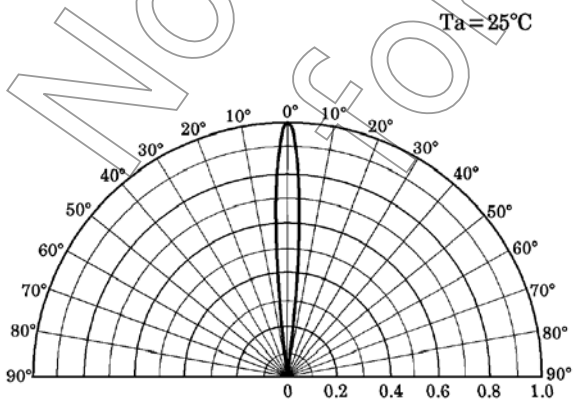
$I_V - Tc$



Relative luminous intensity – Wavelength



Radiation pattern



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