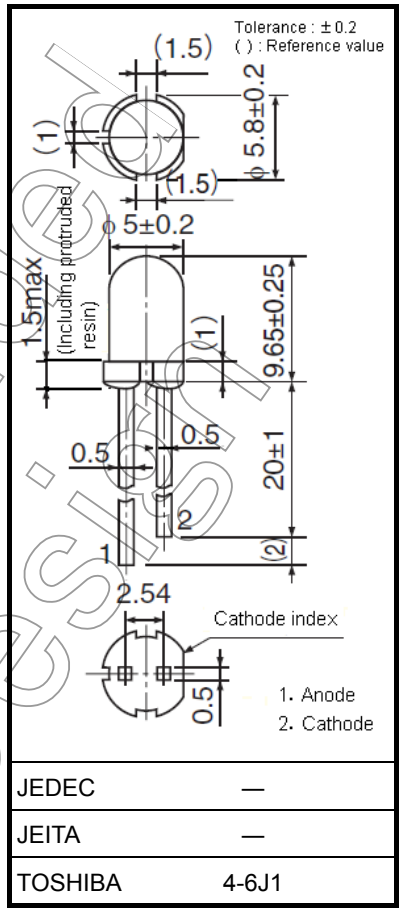
TOSHIBA LED Lamp

TLRME20CP(F)

Panel Circuit Indicator

Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	4-6J1

Weight: 0.31 g (typ.)

- φ 5mm package
- InGaAℓP technology
- Colored clear lens
- High intensity light emission
- Excellent low current light output
- Applications : Various types of information panels, backlightings, etc.

Line-Up

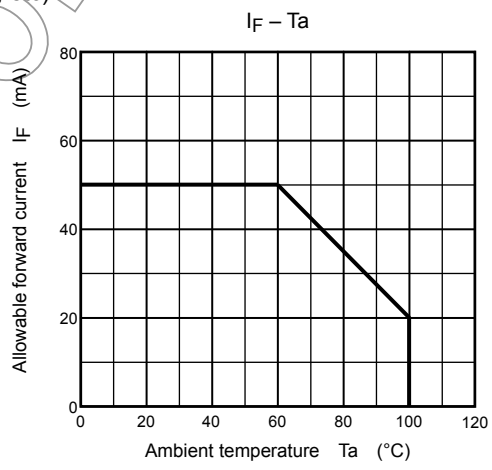
Product Name	Color	Material
TLRME20CP(F)	Red	InGaAℓP

Absolute Maximum Ratings (Ta = 25°C)

Product Name	Forward Current I_F (mA) (Note1)	Reverse Voltage V_R (V)	Power Dissipation P_D (mW)	Operating Temperature T_{opr} (°C)	Storage Temperature T_{stg} (°C)
TLRME20CP(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).

Note1: Forward current derating



Electrical and Optical Characteristics (Ta = 25°C)

Product Name	Typ. Emission Wavelength				Luminous Intensity I_V			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
TLRME20CP(F)	626	636	23	20	4760	12000	20	1.9	2.4	20	50	4
Unit	nm			mA	mcd		mA	V		mA	μA	V

Note: Lamps are classified into the following ranks according to their luminous intensity, and packed in boxes by each rank. V: 4760 – 12900 mcd, W: 8500 – 23000 mcd, X: 15300 mcd –

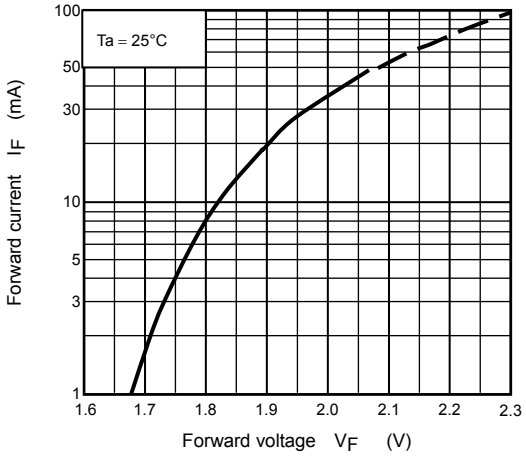
Precautions

Please be careful of the following:

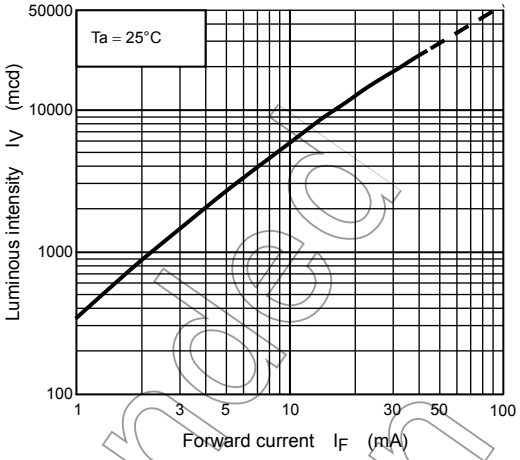
- Soldering temperature: 260°C max, soldering time: 3 s max
  (soldering portion of lead: up to 1.6 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 1.6 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead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

TLRME20CP(F)

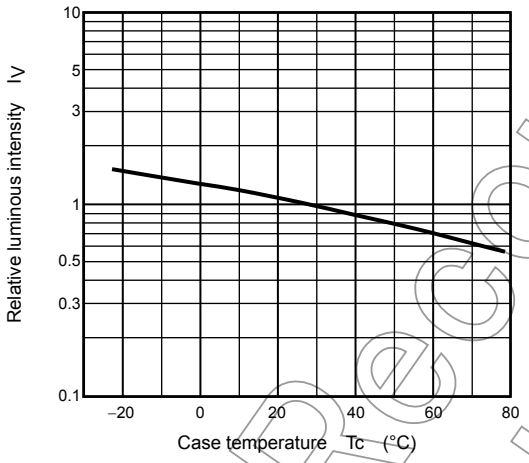
$I_F - V_F$



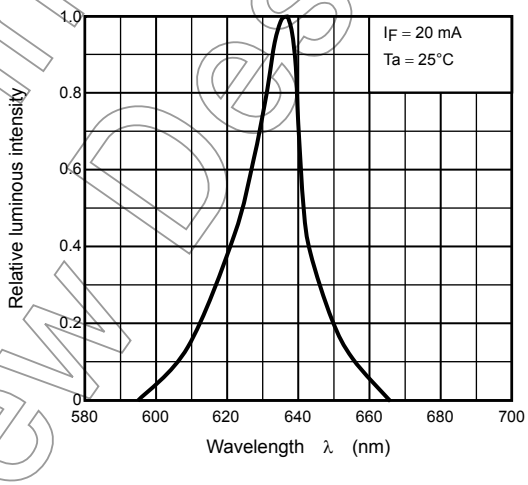
$I_V - I_F$



$I_V - Tc$

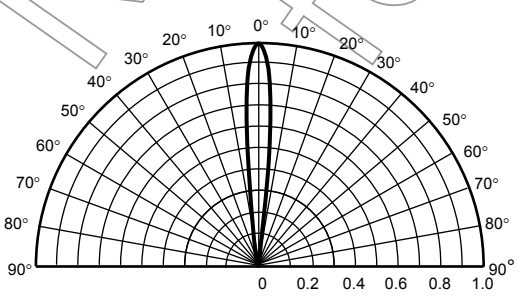


Relative luminous intensity – Wavelength



Radiation pattern

Ta = 25°C



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