

TLRH50T(F), TLSH50T(F), TLOH50T(F), TLYH50T(F)

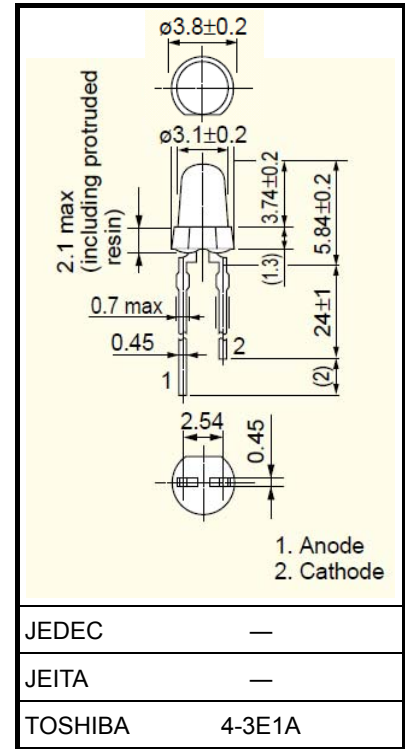
Panel Circuit Indicators

- $\phi 3$ -mm package
- InGaAlP technology
- Transparent lens
- Emitted colors: red, orange, yellow
- High luminous intensity
- High optical output power at low current
- Applications: message boards, pilot lamps, etc.

Color and Material

Part Number	Color	Material
TLRH50T(F)	Red	InGaAlP
TLSH50T(F)		
TLOH50T(F)	Orange	
TLYH50T(F)	Yellow	

Unit: mm



Weight: 0.14 g (typ.)



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

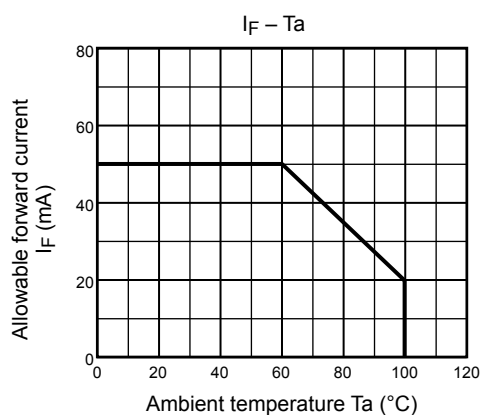
Absolute Maximum Ratings (Ta = 25°C)

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)
TLRH50T(F)	50	4	120	-40 to 100	-40 to 120
TLSH50T(F)					
TLOH50T(F)					
TLYH50T(F)					

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)

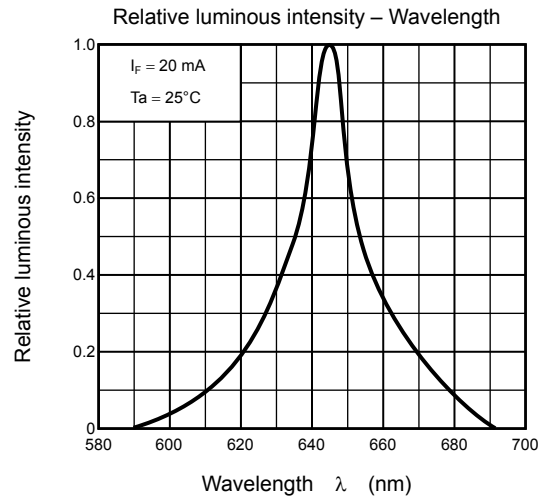
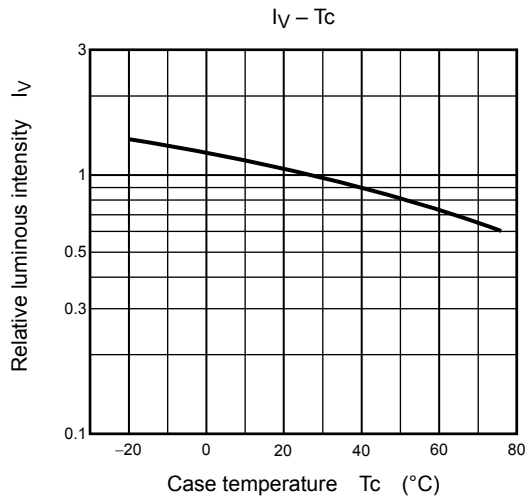
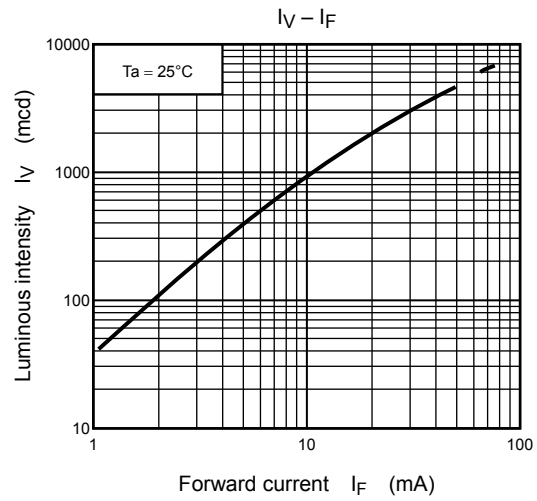
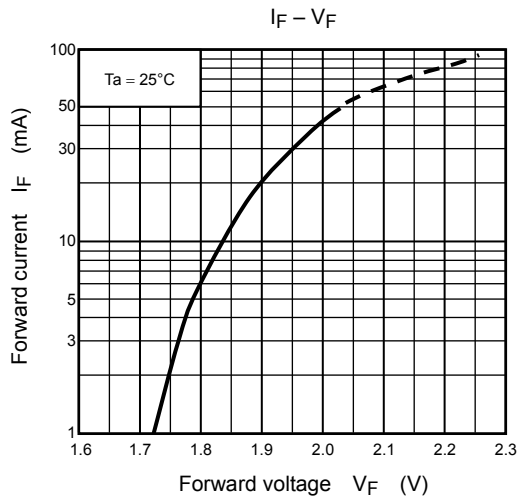
Part Number	Typ. Emission Wavelength			Luminous Intensity			Forward Voltage			Reverse Current		
	λ_d	λ_p	$\Delta\lambda$	I _V			V _F			Max	I _R	
			I _F	Min	Typ.	I _F	Typ.	Max	I _F	Max	V _R	
TLRH50T(F)	630	644	13	20	850	2000	20	1.9	2.4	20	50	4
TLSH50T(F)	613	623	13	20	2720	4700	20	2.0	2.4	20	50	4
TLOH50T(F)	605	612	13	20	1530	5800	20	2.0	2.4	20	50	4
TLYH50T(F)	587	590	13	20	1530	4400	20	2.0	2.4	20	50	4
Unit	nm			mA	mcd		mA	V		mA	μA	V

Precautions

Please be careful of the following:

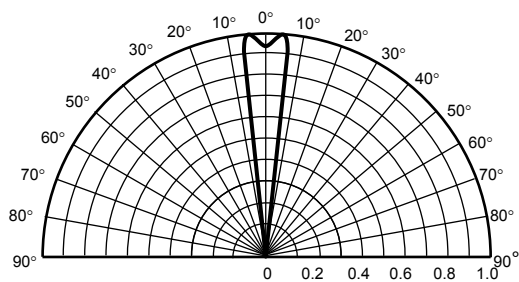
- Soldering temperature : 260°C max, soldering time : 3 seconds max (Soldering portion of lead : up to 1.6 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 1.6 mm from the body of the device without forming stress to the resin. Soldering should be performed after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

TLRH50T(F)

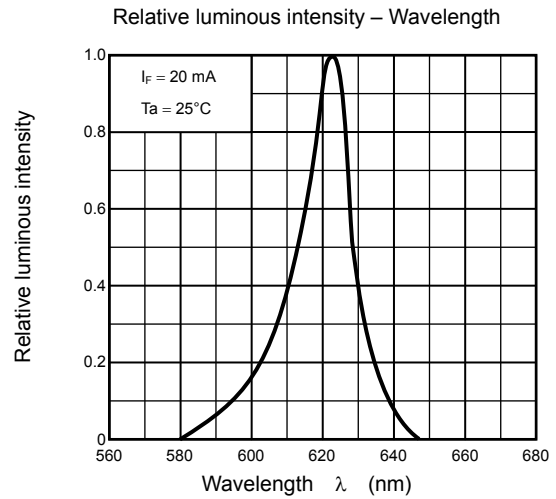
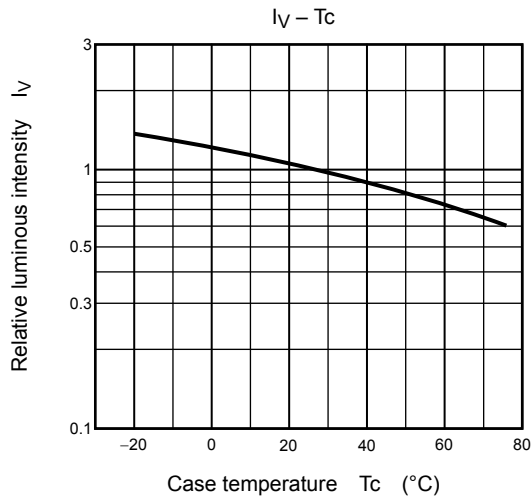
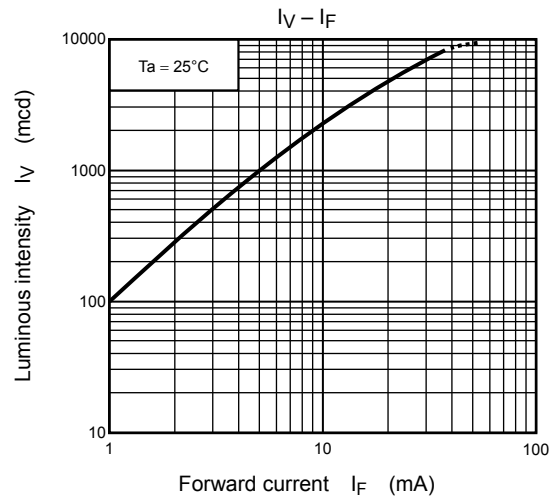
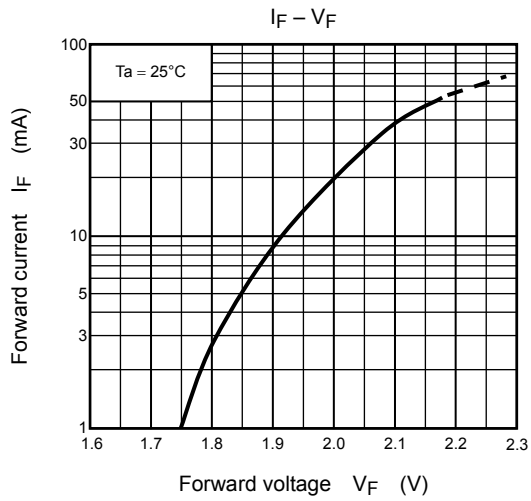


Radiation pattern

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

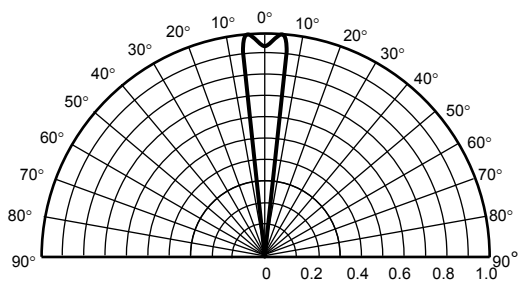


TL50T(F)

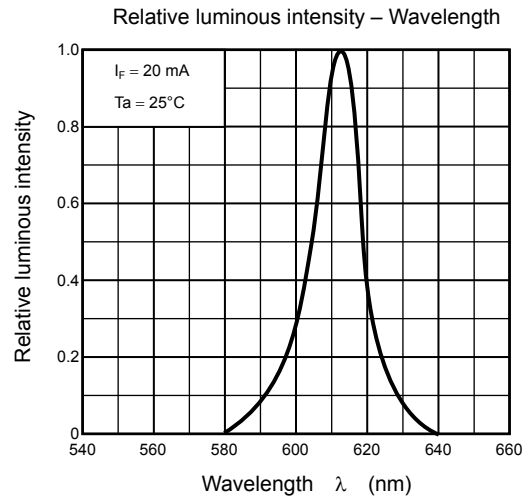
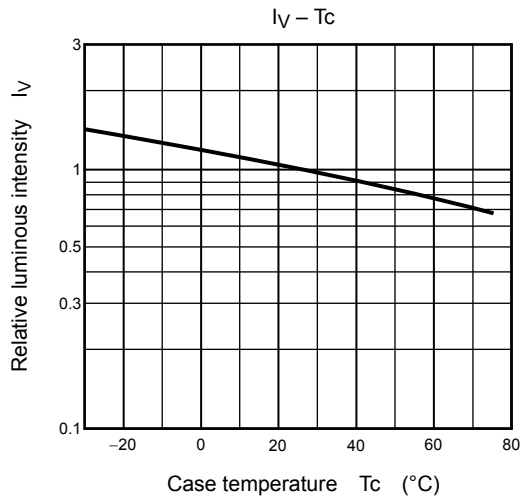
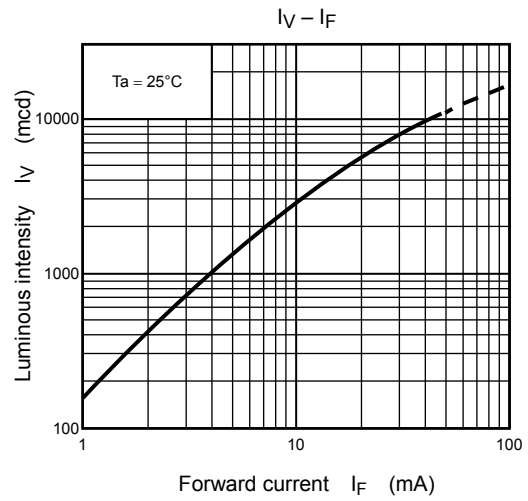
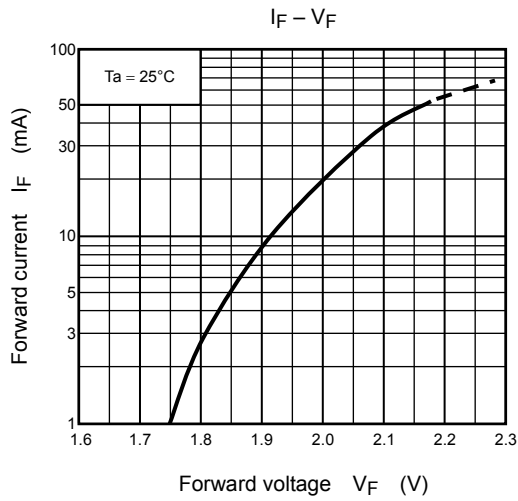


Radiation pattern

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

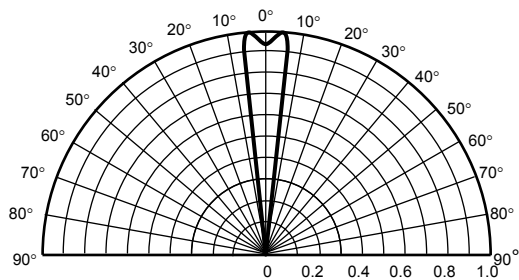


TLOH50T(F)

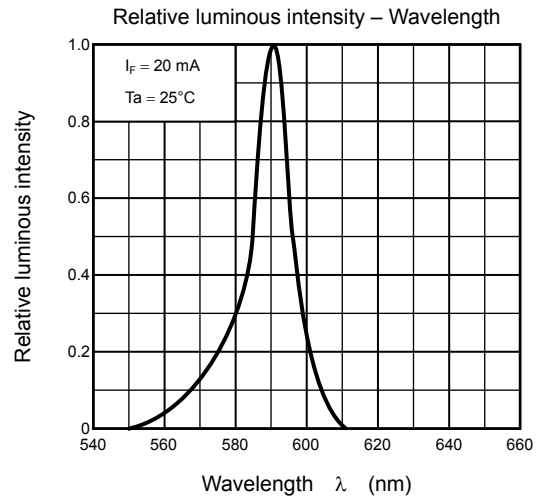
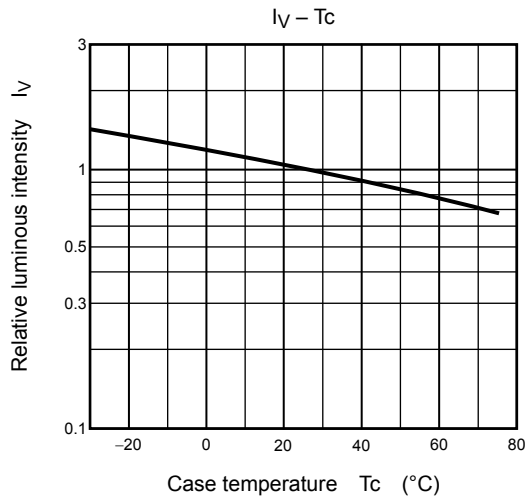
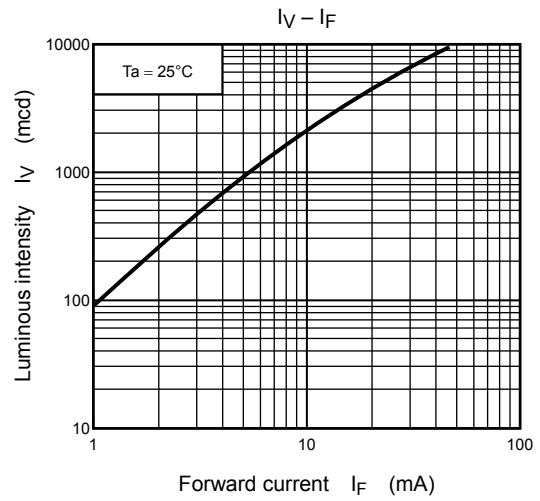
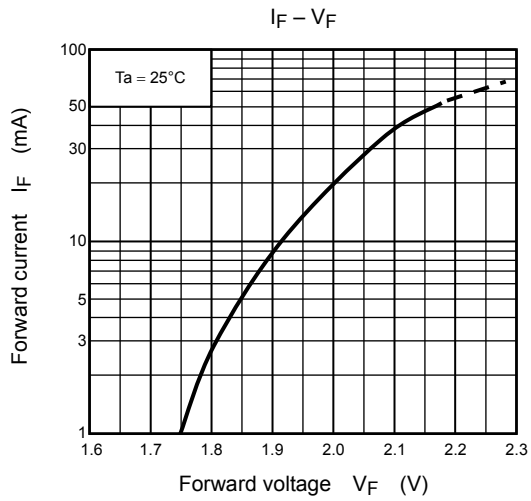


Radiation pattern

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

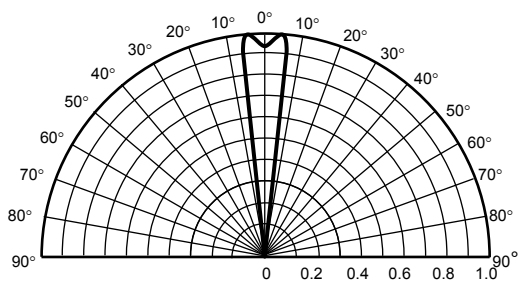


TLYH50T(F)



Radiation pattern

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



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