

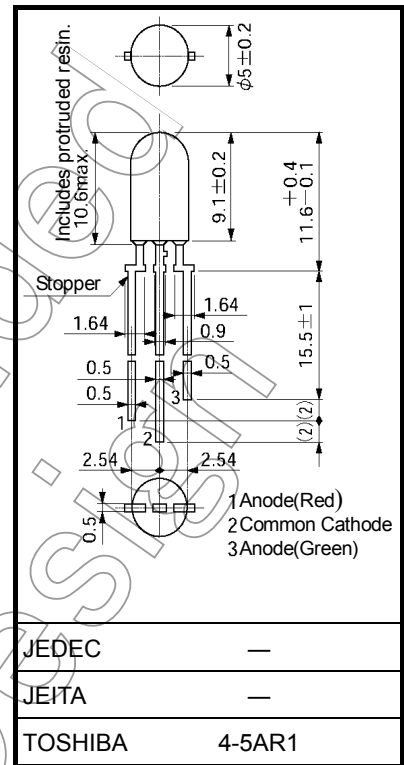
TOSHIBA LED LAMP InGaA/P RED/GREEN LIGHT EMISSION

TLRMHGH48M(F)

○ Bi-Color High Luminosity Indicator

- High luminous intensity
- 5-mm package
- InGaA/P red/green LED with a common cathode
- Plastic-molded
- Milky white diffusion lens

Unit: mm



Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Forward Current	I_F	50 (Note 1)	mA
Reverse Voltage	V_R	4	V
Power Dissipation	P_D	120	(mW)
Power Dissipation	T_{opr}	-40 to 100	°C
Operating Temperature	T_{stg}	-40 to 120	°C

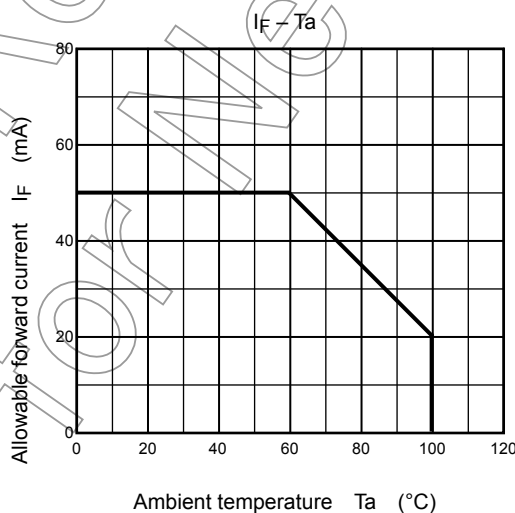
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) 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).

Weight: 0.37 g (typ.)

Note 1: Per-device I_F - T_a rating.

When both the red and green LEDs are lit up, the sum of their forward currents should be within the rated value.



Electrical and Optical Characteristics (Ta = 25°C)

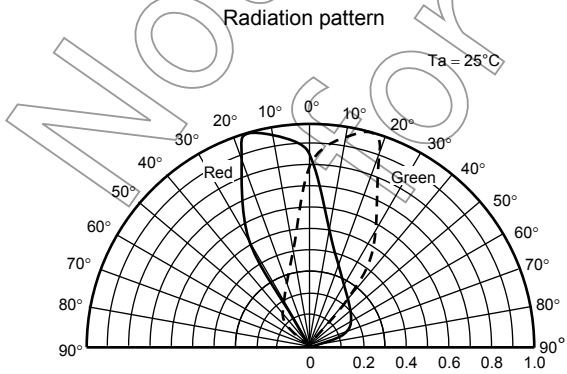
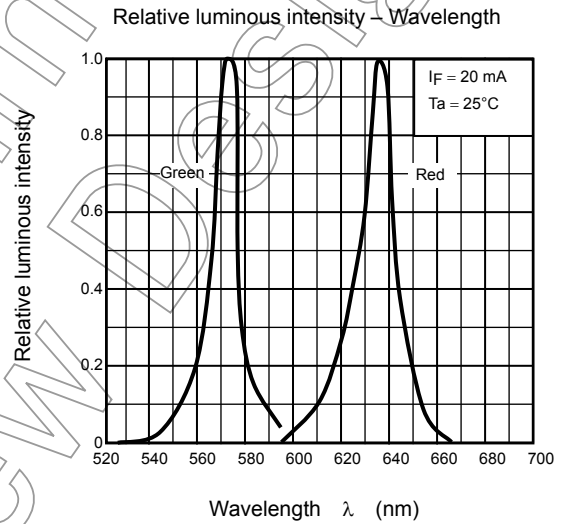
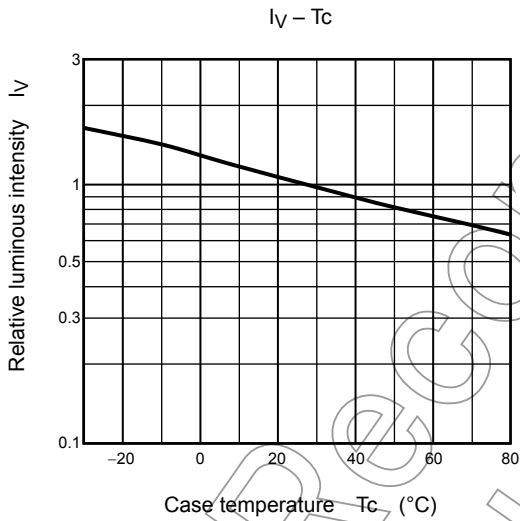
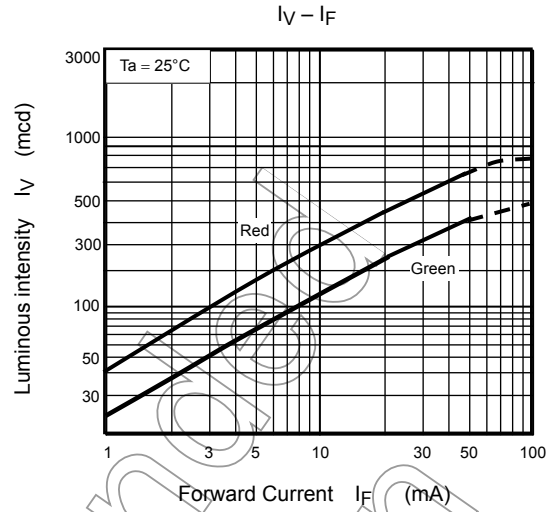
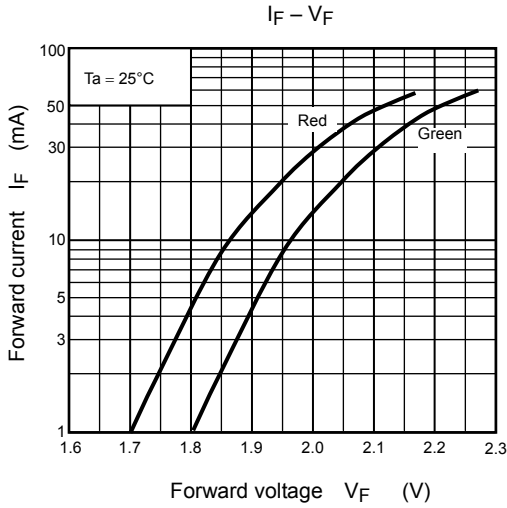
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Forward Voltage	Red	V_F	$I_F = 20 \text{ mA}$	—	1.95	2.4	V
	Green			—	2.05	2.4	
Reverse Current	Red	I_R	$V_R = 4 \text{ V}$	—	—	50	μA
	Green			—	—	50	
Luminous Intensity	Red	I_V	$I_F = 20 \text{ mA}$	272	450	—	mcd
	Green			153	220	—	
Spectral Line Half Width	Red	$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	13	—	nm
	Green			—	13	—	
Dominant Wavelength	Red	λ_d	$I_F = 20 \text{ mA}$	—	626	—	nm
	Green			—	571	—	

Precautions

Please be careful of the followings

- Soldering temperature: 260°C max, Soldering time :3 s max (Soldering portion of lead: below the lead stopper of the device)
- If the lead is formed, the lead should be formed up to below the lead stopper of the device without Formed stress to the resin. Soldering should be performed after lead forming.
- The 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 the IR light.

Not Recommended for New Design



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