TOSHIBA InGaA_lP LED

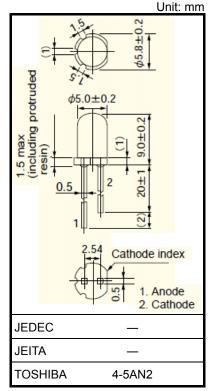
TLGU18TP(F),TLGU18CP(F),TLPGU18TP(F)

○ Panel Circuit Indicator

- Lead(Pb)-free products (lead: Sn-Ag-Cu)
- 5mm package wide viewing angle •
- InGaAℓP
- All plastic mold type TLGU18TP(F): Transparent lens TLGU18CP(F): Colored, Transparent lens TLPGU18TP(F): Transparent lens
- Colors: Green, Pure green
- Applications: Various types of information panels, indicators for amusement equipment and panel backlighting illumination sources.
- Stopper leads type is also available. TLGU18T(F), TLGU18C(F), TLPGU18T(F)

Lineup

Product Name	Color	Material		
TLGU18TP(F)	Green			
TLGU18CP(F)	Green	InGaAℓP		
TLPGU18TP(F)	Pure Green			



Weight: 0.31 g (Typ.)

Absolute Maximum Ratings (Ta = 25°C)

Product Name	Forward Current I _F (mA)	Reverse Voltage V _R (V)	Power Dissipation P _D (mW)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{sta} (°C)	
TLGU18TP(F)	30	4	72			
TLGU18CP(F)	30	4	72	-40~100	-40~120	
TLPGU18TP(F)	30	4	72			

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).

Unit: mm

Product Name	Typ. Emission Wavelength			Luminous Intensity I _V		Forward Voltage V _F			Reverse Current I _R			
	λ_{d}	λP	Δλ	١ _F	Min	Тур.	١ _F	Тур.	Max	١ _F	Max	VR
TLGU18TP(F)	571	(574)	17	20	85.0	200	20	2.1	2.4	20	50	4
TLGU18CP(F)	571	(574)	17	20	47.6	180	20	2.1	2.4	20	50	4
TLPGU18TP(F)	558	(562)	14	20	27.2	90	20	2.1	2.4	20	50	4
Unit		nm		mA	m	cd	mA	١	/	mA	μA	V

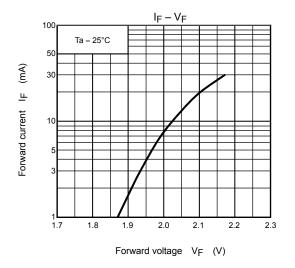
Electrical and Optical Characteristics (Ta = 25°C)

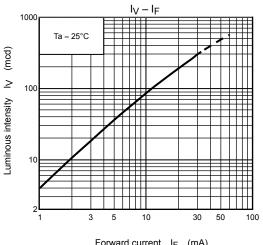
Precautions

Please be careful of the following:

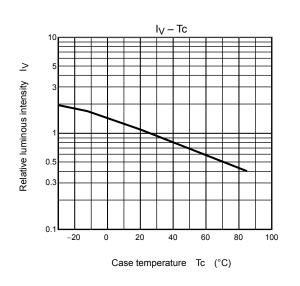
- Soldering temperature: 260°C max, soldering time: 3 s max (soldering portion of lead: up to 1.6 mm from the body of the device)
- If the lead is formed, the lead should be formed up to 1.6 mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.
- This visible LED lamp also emits some IR light. If a photo detector is located near the LED lamp, please ensure that it will not be affected by this IR light.

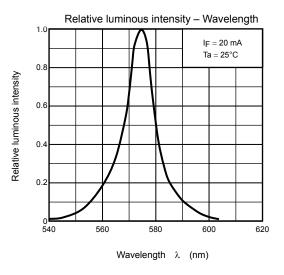
TLGU18TP(F)





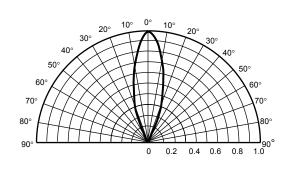
Forward current IF (mA)

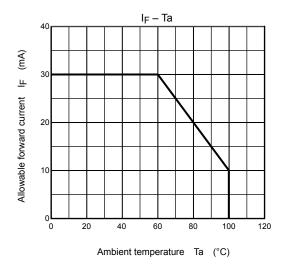




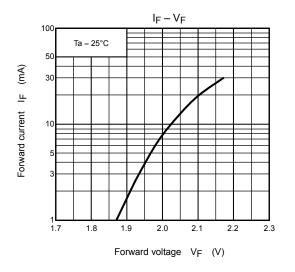
Radiation pattern

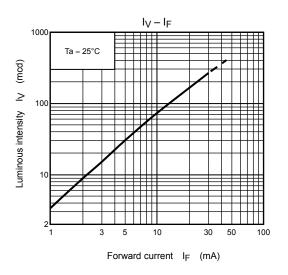
Ta = 25°C

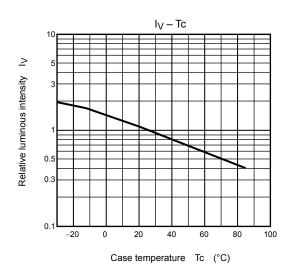


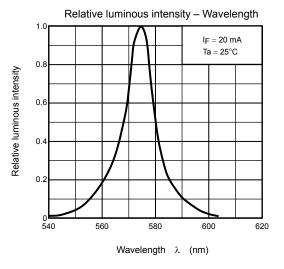


TLGU18CP(F)



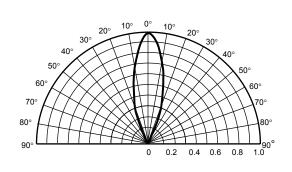


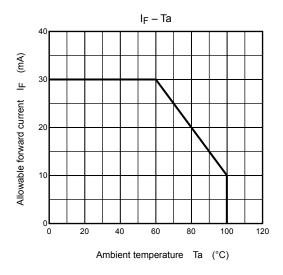




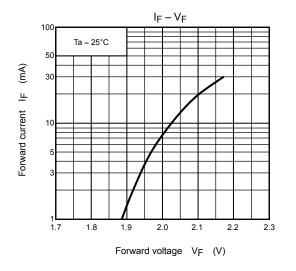


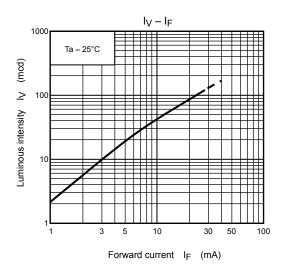


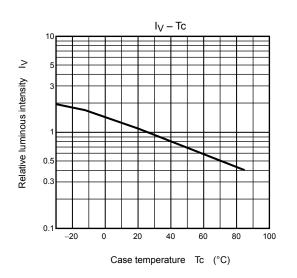


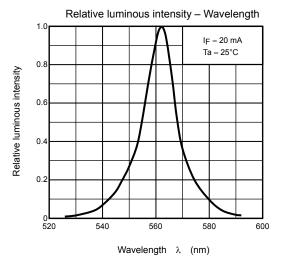


TLPGU18TP(F)

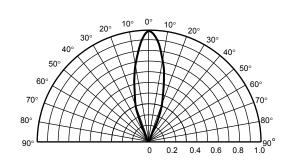


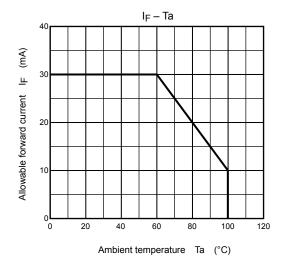






Radiation pattern





RESTRICTIONS ON PRODUCT USE

20070701-EN

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