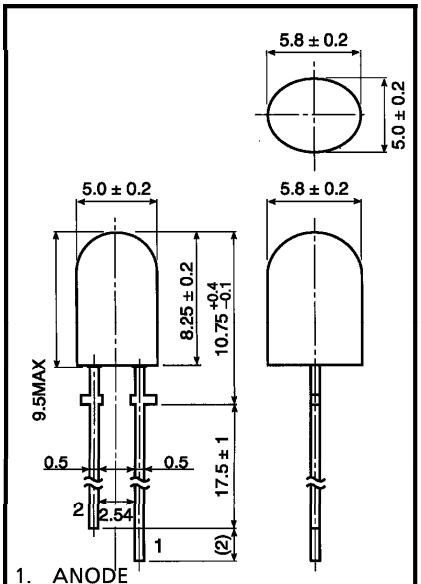
TENTATIVE TOSHIBA LED LAMP InGaAℓP PURE GREEN LIGHT EMISSION

TLPGE247

PANEL CIRCUIT INDICATOR

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	

Weight : 0.3 g

- InGaAℓP PURE GREEN LED
- Elliptical Lens : Colorless Clear Lens
- Wide Radiation
- Low Drive Current, High Intensity Pure Green Light Emission
- Plastic Molded Colorless Clear Lens Provides for High Contrast of ON-OFF Ratio.
- Fast Response Time, Capable of Pulse Operation.
- APPLICATIONS : Suitable for Outdoor Message Signboard, Full Color Panel, Backlight.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current	I_F	50	mA
Reverse Voltage	V_R	4	V
Power Dissipation	P_D	140	mW
Operating Temperature Range	T_{opr}	−30~85	°C
Storage Temperature Range	T_{stg}	−40~120	°C

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- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
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- The information contained herein is subject to change without notice.

ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage	V_F	I_F = 20 mA	—	2.27	2.8	V
Reverse Current	I_R	V_R = 4 V	—	—	50	μA
Luminous Intensity	I_V	I_F = 20 mA (Note)	27.2	90	—	mcd
Peak Emission Wavelength	λ_p	I_F = 20 mA	—	562	—	nm
Spectral Line Half Width	$\Delta\lambda$	I_F = 20 mA	—	11	—	nm
Dominant Wavelength	λ_d	I_F = 20 mA	—	558	—	nm

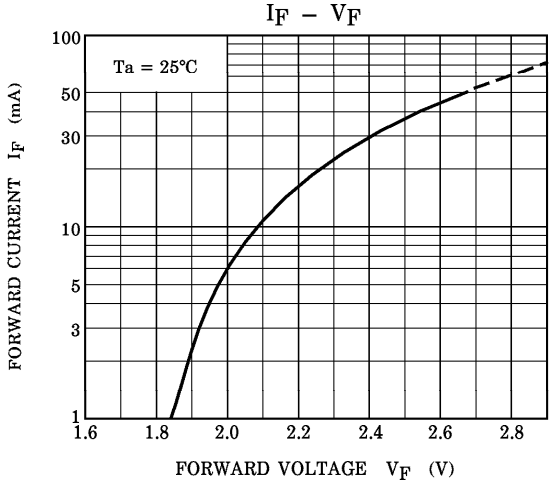
(Note) : Lamps are classified into the following ranks according to their luminous intensity.
Measurement tolerance for each limit is ±15%.
L : 32~64 mcd, M : 56~112 mcd, N : 100~200 mcd

PRECAUTION

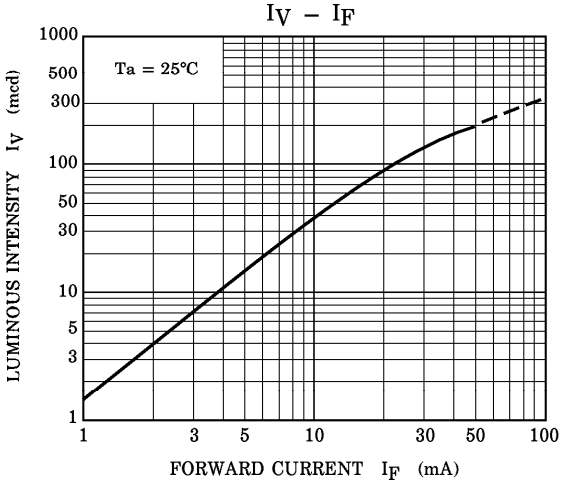
Please be careful of the followings

- Soldering temperature : 260°C max Soldering time : 3 s max
(Soldering portion of lead : below the lead stopper)
- If the lead is formed, the lead should be formed up to 5 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.

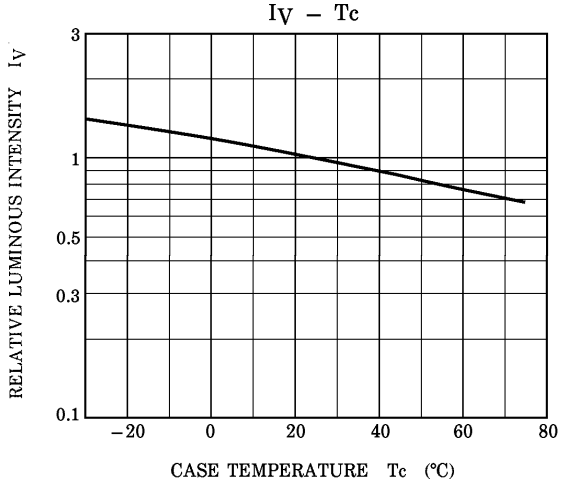
$I_F - V_F$



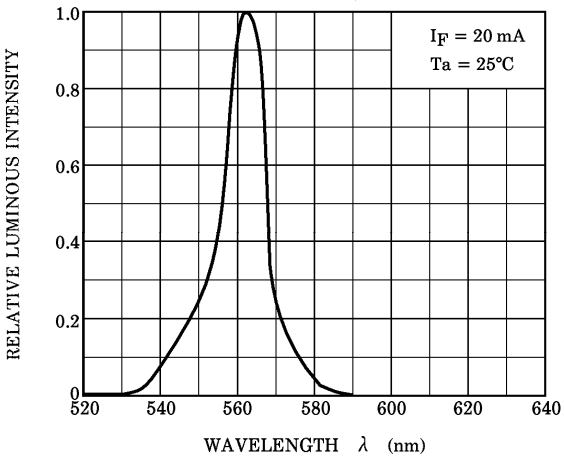
$I_V - I_F$



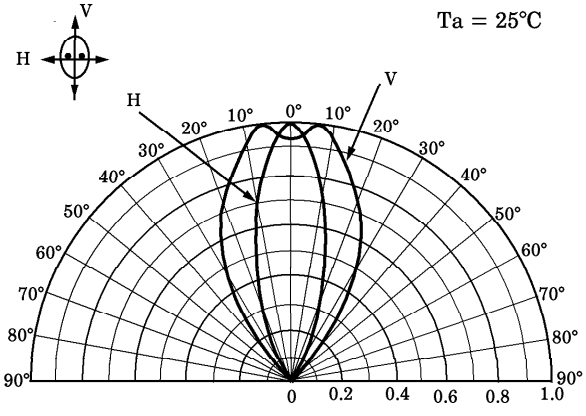
$I_V - Tc$



RELATIVE LUMINOUS INTENSITY WAVELENGTH



RADIATION PATTERN



$I_F - Ta$