Unit in mm

CATHODE INDEX

TOSHIBA LED LAMP InGaA&P ORANGE LIGHT EMISSION

# TLOE156AP

#### PANEL CIRCUIT INDICATOR

- 5 mm DIAMETER (T1-3/4)
- InGaA&P ORANGE LED
- All Plastic Mold Type.
- Colorless Clear Lens
- Low Drive Current, High Intensity Orange Light Emission Recommended Forward Current :  $I_F = 15 \sim 20 \text{ mA}$  (DC)
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Fast Response Time, Capable of Pulse Operation.
- High Power Luminous Intensity
- Without stand-offs
- APPLICATIONS: Suitable for Outdoor Message Signboard, Safety equipment. automotive use.

### MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current (DC)	$I_{\mathbf{F}}$	50	mA
Reverse Voltage	$v_{R}$	4	V
Power Dissipation	$P_{\mathbf{D}}$	125	mW
Operating Temperature Range	$T_{ m opr}$	-30~85	°C
Storage Temperature Range	$ m T_{stg}$	-40~120	$^{\circ}\mathrm{C}$

(2) 20 ± 1 8.75 ± 0.2

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JEDEC	_	
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TOSHIBA		

Weight: 0.31 g

2001-06-01

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Forward Voltage		$ m V_{ m F}$	$I_{ m F}=20{ m mA}$	_	1.95	2.4	V
Reverse Current		$I_{\mathbf{R}}$	$V_R = 4 V$	_	_	50	$\mu$ A
Luminous	TLOE156AP	IV	$I_{ m F}=20~{ m mA}~{ m (Note)}$	272	1000	_	mcd
Intensity	TLOE156AP (RS)			476	_	2300	
Peak Emission Wavelength		$\lambda_{\mathbf{p}}$	$I_{ m F}=20{ m mA}$	_	612	_	nm
Spectral Line Half Width		Δλ	$I_{ m F}=20{ m mA}$		15	_	nm
Dominant Wavelength		$^{\lambda}\mathbf{d}$	$I_{ m F}=20{ m mA}$	_	605	_	nm

(Note): Lamps are classified into the following ranks according to their luminous intensity. Measurement tolerance for each limit is  $\pm 15\%$ .

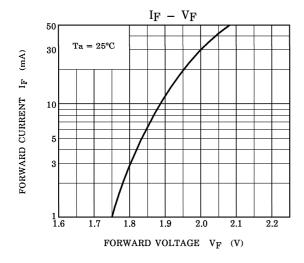
Q: 320-640 mcd, R: 560-1120 mcd, S: 1000-2000 mcd.

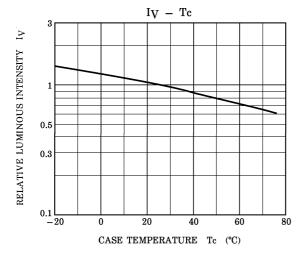
## **PRECAUTION**

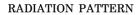
Please be careful of the followings

- Soldering temperature: 260°C max Soldering time: 3 s max (Soldering portion of lead: up to 2 mm from the body of the device)
- 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.

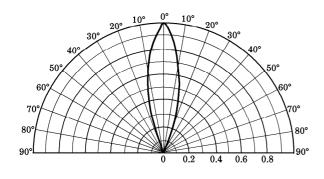
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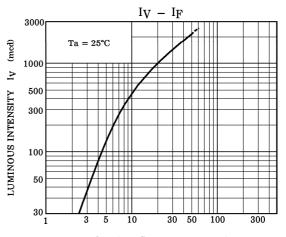




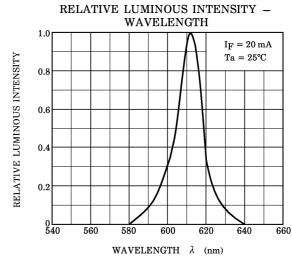


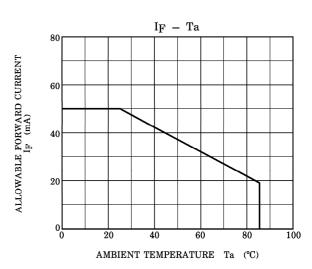
 $Ta = 25^{\circ}C$ 





FORWARD CURRENT IF (mA)





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