LED Lamp TLRE180P

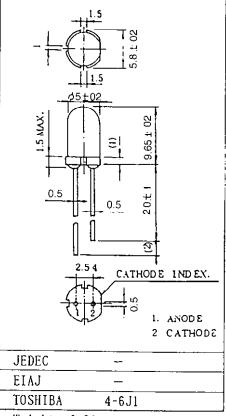
InGaAIP Red Light Emission

- Panel Circuit Indicator
- 5mm Diameter (T1-3/4)
- InGaAIP Red LED
- · All Plastic Mold Type
- · Colorless Clear Lens
- · Low Drive Current, High Intensity Red Light Emission
- Recommended Forward Current: I_F= 15 ~ 20 mA (DC)
- · All Plastic Molded Lens
 - Provides an Excellent ON-OFF Contrast Ratio
- Fast Response Time
 - Capable of Pulse Operation
- · High Power Luminous Intensity
- Straight Lead (no stand-off)
- · Applications:
 - Outdoor Message Signboard
 - Railway Signals / Traffic Signals

Maximum Ratings ($T_a = 25^{\circ}C$)

Characteristic	Symbol	Rating	Unit	
Forward Current (DC)	I _F	30	mA	
Reverse Voltage	V _R	4	V	
Power Dissipation	P _D	75	mW	
Operating Temperature Range	T _{opr}	-30 ~ 85	°C	
Storage Temperature Range	T _{stg}	-40 ~ 120	°C	

Unit in mm



Weight: 0.31g

Electro-Optical Characteristics ($T_a = 25^{\circ}C$)

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Forward Voltage	V _F	I _F = 20 mA	_	1.85	2.4	V
Reverse Current	I _R	V _R = 4 V	_	_	50	μΑ
Luminous Intensity (NOTE)	I _V	I _F = 20 mA	(850)	_	-	mcd
Peak Emission Wavelength	λ _p	I _F = 20 mA	_	644	-	nm
Spectral Line Half Width	Δλ	I _F = 20 mA	_	18	-	nm
Dominant Wavelength	λ _d	I _F = 20 mA	-	630	-	nm

(NOTE) Rank selection carried out under next range respectively, although it needs $\pm 15\%$ additional for guaranteed limits. S:1000-2000mcd, T:1800-3600mcd, U:3200-6400mcd

The information contained here is subject to change without notice.

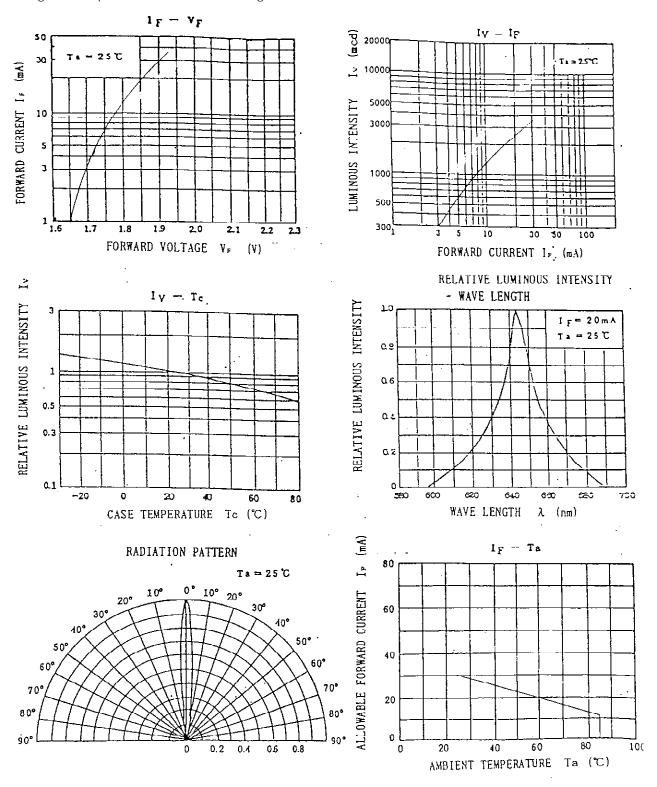
The information contained herein is presented only as guide for the applications of our products. No responsibility is assumed by TOSHIBA for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of TOSHIBA or others. These TOSHIBA products are intended for usage in general electronic equipments (office equipment, communication equipment, measuring equipment, domestic electrification, etc.) Please make sure that you consult with us before you use these TOSHIBA products in equipments which require high quality and/or reliability, and in equipments which could have major impact to the welfare of human life (atomic energy control, spaceship, traffic signal, combustion control, all types of safety devices, etc.) TOSHIBA cannot accept liability to any damage which may occur in case these TOSHIBA products were used in the mentioned equipments without prior consultation with TOSHIBA.

TOSHIBA CORPORATION 1/2

Precaution

Please be careful of the following

- 1. Soldering temperature: 260°C MAX. Soldering time: 3 sec MAX. (Soldering portion of lead: up to 2mm from the body of the device)
- 2. If the lead is formed, the lead should be formed up to 5mm from the body of the device without forming stress. Soldering shall be performed after lead forming.



2/2 TOSHIBA CORPORATION