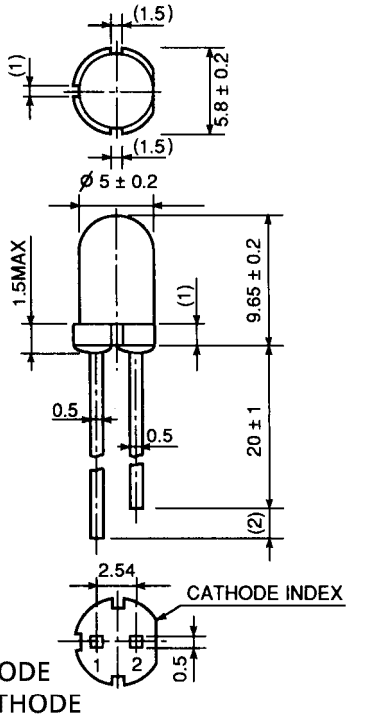
RED **TOSHIBA T-1¾ InGaAlP Ultra Bright LED**

TLSE180P

Product Features -

- InGaAlP Technology
- T-1¾ (5 mm) Package
- High Intensity Red Light (λ_p = 623 nm) Emission
- Water Clear Lens
- Narrow Radiation Pattern



UNIT: mm

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	120	mW
Operating Temperature	T_{opr}	-30 ~ 85	°C
Storage Temperature	T_{stg}	-40 ~ 120	°C

OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

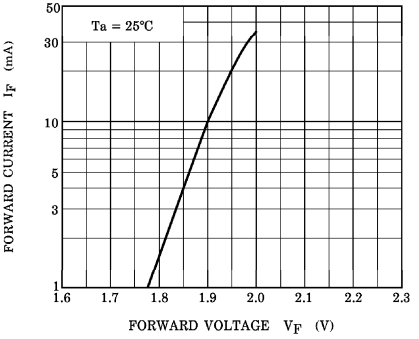
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_F	IF = 20mA	—	1.95	2.4	V
Reverse Current	I_R	VR = 4V	—	—	50	µA
Luminous Intensity	I_V	IF = 20mA	1530	3500	—	mcd
Viewing Angle	2θ½	—	—	8	—	°
Peak Wavelength	λ_p	IF = 20mA	—	623	—	nm
Dominant Wavelength	λ_d	IF = 20mA	—	613	—	nm
Spectral Line Half Width	$\Delta\lambda$	IF = 20mA	—	15	—	nm

* Luminous Ranks: (T : 1800-3600mcd), (U : 3200-6400mcd), (V : 5600-11200mcd) Upper and lower limit tolerance ±15%
Available in Two Bin Combinations: (TU), (UV)

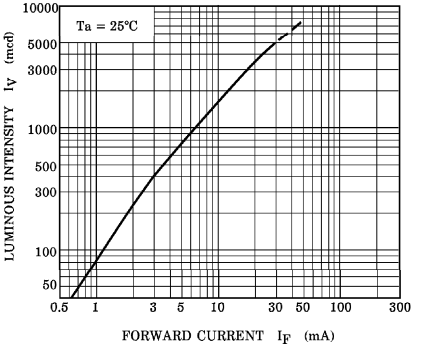
marktech optoelectronics
120 Broadway • Menands, New York 12204
Toll Free: **(800) 98-4LEDS** • Fax: (518) 432-7454

TLSE180P Graphs -

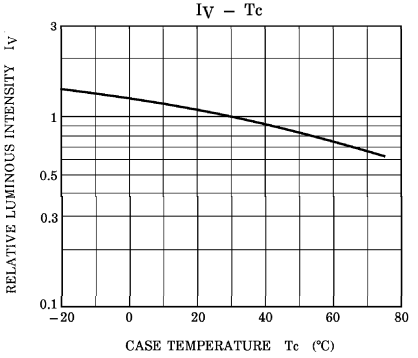
$I_F - V_F$



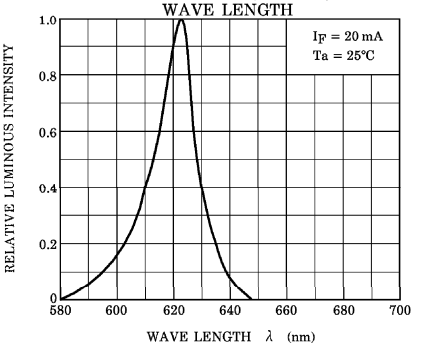
$I_V - I_F$



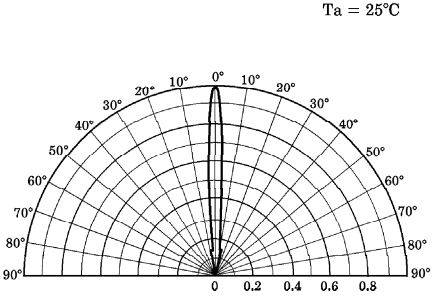
$I_V - Tc$



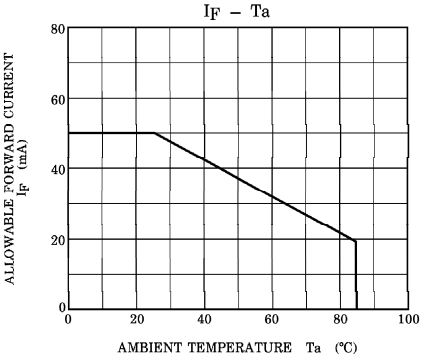
RELATIVE LUMINOUS INTENSITY – WAVE LENGTH



RADIATION PATTERN



$I_F - Ta$



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