

RED**T-1³/₄ Ultra Bright LED**High Performance
Ultra Bright LEDs

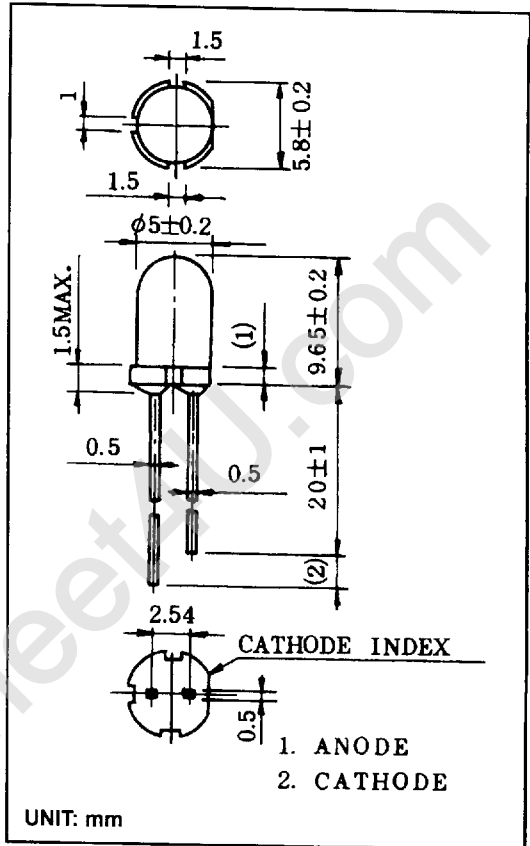
TLRA180AP

Product Features -

- GaAlAs Technology
- T1³/₄ (5 mm) Package
- Very High Intensity Red Light ($\lambda_p = 660 \text{ nm}$) Emission
- Water Clear Lens

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	125	mW
Operating Temperature	T_{opr}	-20 ~ 85	°C
Storage Temperature	T_{stg}	-30 ~ 100	°C



OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_F	$I_F = 20 \text{ mA}$	—	1.85	2.4	V
Reverse Current	I_R	$V_R = 4 \text{ V}$	—	—	100	μA
Luminous Intensity*	I_V	$I_F = 20 \text{ mA}$	1800	3000	—	mcd
Viewing Angle	$20\frac{1}{2}$	—	—	8	—	°
Peak Wavelength	λ_p	$I_F = 20 \text{ mA}$	—	660	—	nm
Dominant Wavelength	λ_d	$I_F = 20 \text{ mA}$	—	647	—	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F = 20 \text{ mA}$	—	25	—	nm

* Luminous Ranks (S: 1000-2000mcd), (T: 1800-3600mcd), (U: 3200-6400) Upper and lower limit tolerance $\pm 15\%$
Available in Two Bin Combinations: (ST), (TU)



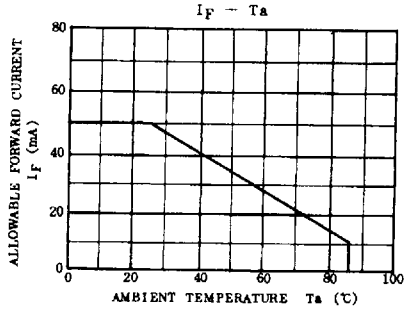
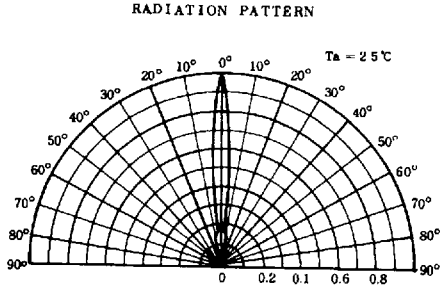
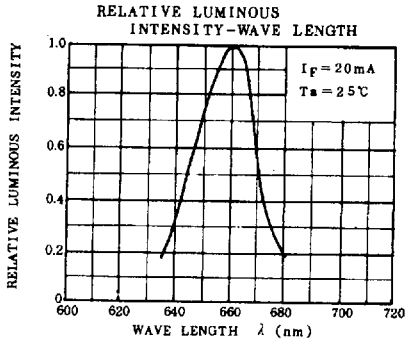
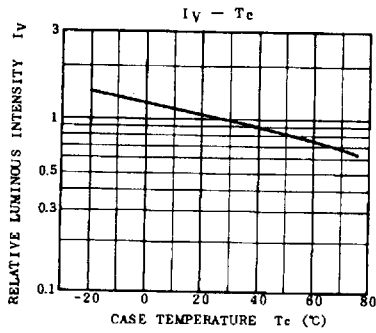
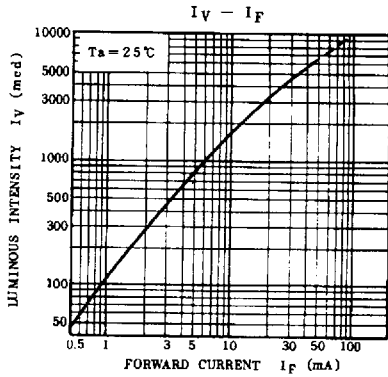
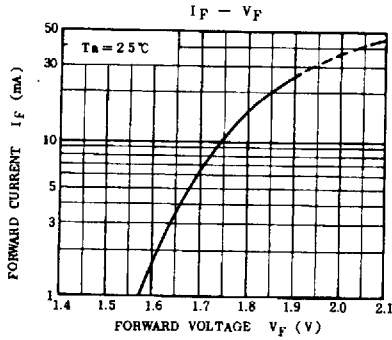
marktech
optoelectronics

5 Hemlock Street • Latham, New York 12110
Toll Free: (800) 98-4LEDS • Fax: (518) 786-6599

All specifications subject to change.

TLRA180AP Graphs -

High Performance
Ultra Bright LEDs



marktech
optoelectronics

5 Hemlock Street • Latham, New York 12110

Toll Free: (800) 98-4LEDS • Fax: (518) 786-6599

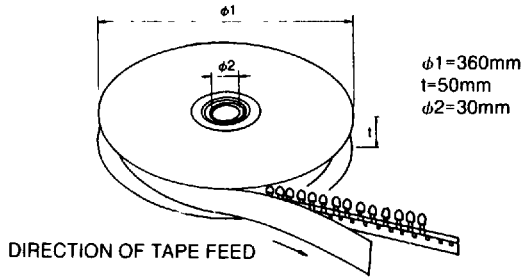
5799655 0001442 943

All specifications subject to change.

APPLICATION NOTES

[4] Packaging Reel Packaging

a) Reel type



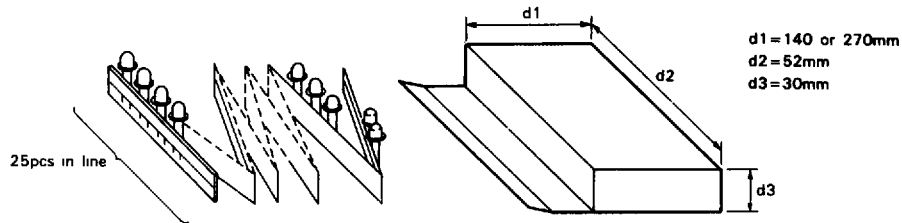
Content

LED Type	Quantity/Reel
$\phi 3$ Series	2000 pcs
$\phi 5$ Series	1000 pcs

T-1 and T- 1 3/4 packages

*Lamps with external shapes other than those above are also available. Please consult Marktech.

b) Zigzag wound tape



At tape beginning and end, there is additional space for 4 pcs or more

Content

LED Type	Quantity/Box
$\phi 3$ Series	2000 or 5000 pcs
$\phi 5$ Series	1000 or 2000 pcs