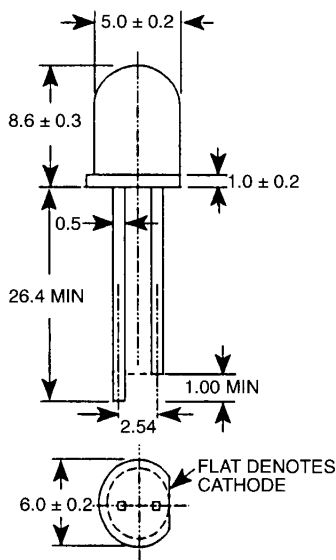




SUPER BRIGHT T-1 $\frac{3}{4}$ (5 mm) LED LAMPS

SUPER RED MV8102 CLEAR
SUPER RED MV8103 CLEAR
SUPER RED MV8104 CLEAR

PACKAGE DIMENSIONS



ST1760

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. LEAD SPACING IS MEASURED WHERE THE LEADS EMERGE FROM THE PACKAGE
3. PROTRUDED RESIN UNDER FLANGE IS 1.5 mm (0.059") MAX.

DESCRIPTION

These T-1 $\frac{3}{4}$ super bright LEDs have a narrow 20° viewing angle for concentrated light output. The MV8101/2/3/4 are made with GaAlAs LEDs on a GaAlAs substrate. They are all encapsulated in an epoxy package and have water clear lenses.

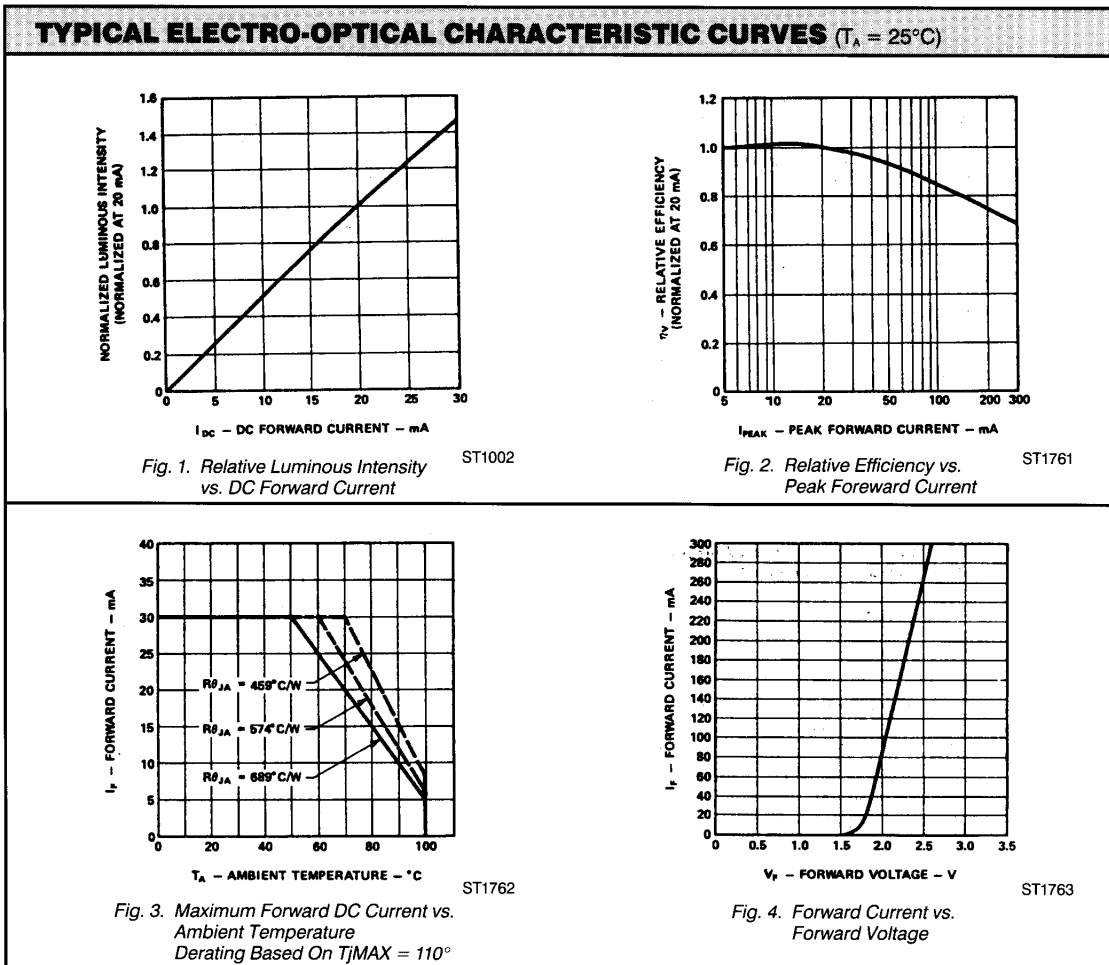
FEATURES

- Outstanding material efficiency
- Popular T-1 $\frac{3}{4}$ package
- Low drive current
- Solid state reliability
- Super high brightness suitable for outdoors applications
- Standard 1 mil. lead spacing

ABSOLUTE MAXIMUM RATING ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)

DC forward current (I_F)	40 mA
Operating temperature range	-40°C to $+85^\circ\text{C}$
Storage temperature range	-40°C to $+100^\circ\text{C}$
Lead soldering time (at $\frac{1}{16}$ inch from bottom of lamp)	5 seconds @ 260°C
Peak forward current (at $f=1.0\text{ KHz}$, Duty factor=1/10)	200 mA
Power dissipation (P_d)	110 mW
Recommended operating current (I_F , Rec)	20 mA

ELECTRO-OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Luminous intensity					
MV8102	250	370		mcd	$I_F = 20\text{ mA}$
MV8103	630	940		mcd	$I_F = 20\text{ mA}$
MV8104	1000	1500		mcd	$I_F = 20\text{ mA}$
Forward voltage	1.5	1.7	2.4	V	$I_F = 20\text{ mA}$
Peak wavelength		660		nm	$I_F = 20\text{ mA}$
Spectral line half width		40		nm	$I_F = 20\text{ mA}$
Reverse breakdown voltage		5		V	$I_R = 10\text{ }\mu\text{A}$
Viewing angle		20		degree	$I_F = 20\text{ mA}$



TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES ($T_A=25^\circ\text{C}$)

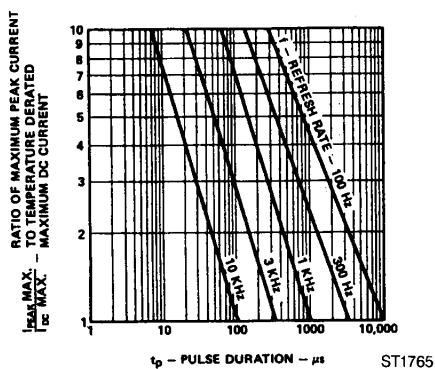


Fig. 5. Maximum Peak Current vs. Pulse Duration

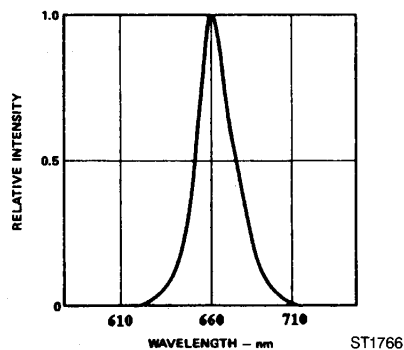


Fig. 6. Relative Intensity vs. Wavelength

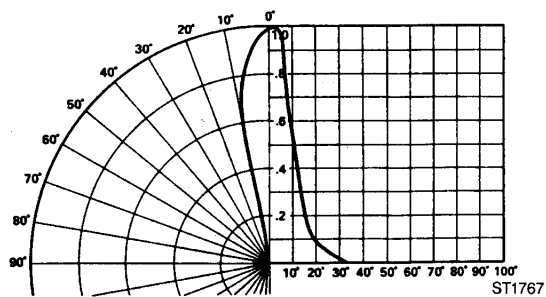


Fig. 7. Relative Luminous Intensity vs. Angular Displacement