



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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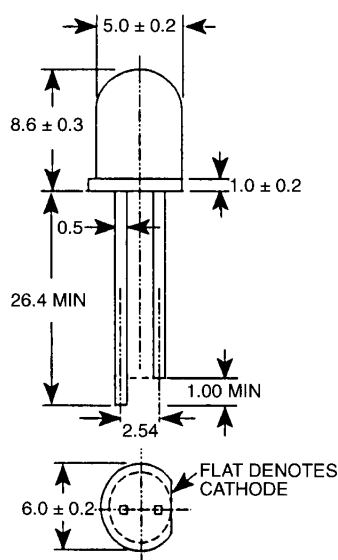
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SUPER RED MV8102 CLEAR
SUPER RED MV8103 CLEAR
SUPER RED MV8104 CLEAR

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-1¾ 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-1¾ 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°C Unless Otherwise Specified)

DC forward current (I _F)	40 mA
Operating temperature range	-40°C to +85°
Storage temperature range	-40°C to +100°C
Lead soldering time (at 1/16 inch from bottom of lamp)	5 seconds @ 260°C
Peak forward current (at f=1.0 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 ($T_A = 25^\circ\text{C}$)

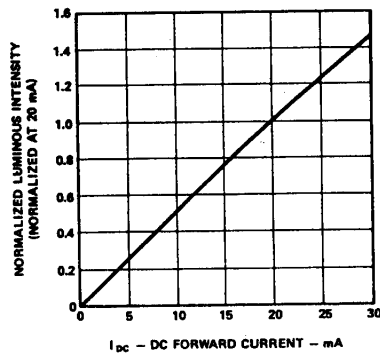


Fig. 1. Relative Luminous Intensity vs. DC Forward Current

ST1002

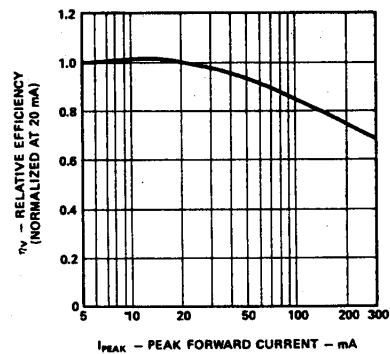


Fig. 2. Relative Efficiency vs. Peak Forward Current

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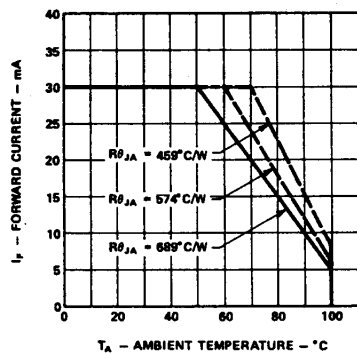


Fig. 3. Maximum Forward DC Current vs. Ambient Temperature
Derating Based On $T_{JMAX} = 110^\circ$

ST1762

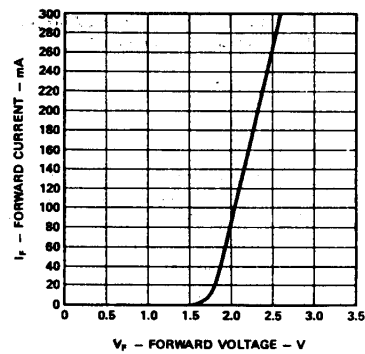
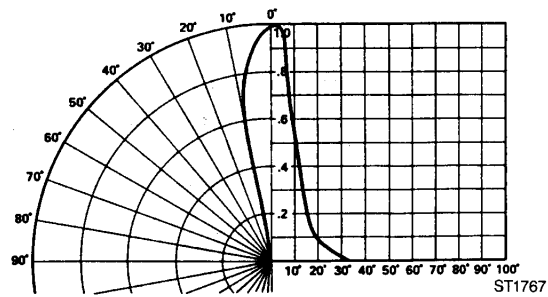
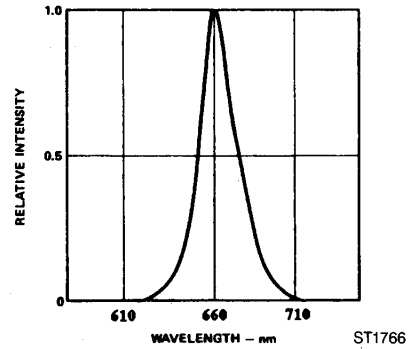
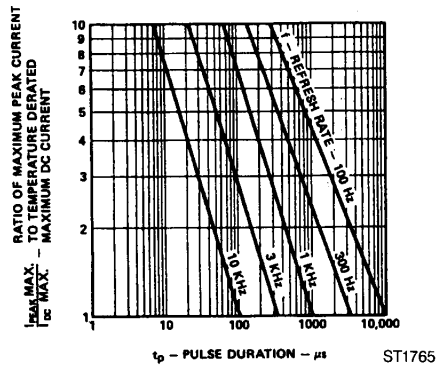


Fig. 4. Forward Current vs. Forward Voltage

ST1763

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





SUPER BRIGHT T-1 3/4 (5mm) LED LAMPS

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