

PACKAGE DIMENSIONS 0.200 (5.08) 0.180 (4.57) 0.350 (8.89) 0.040 (1.02) 0.330 (8.38) 1.00 (25.4) MIN 0.050 (1.27) -0.050 (1.27) RFF 0.100 (2.54) -0.100 (2.54) Ø 0.230 (5.84) FLAT DENOTES 0.023 (0.58) 0.017 (0.43) SQ. TYP. (2X) CATHODE

SUPER RED MV804X MV8041 MV8042 MV8043

FEATURES

- Popular T-1 3/4 package
- Super high brightness suitable for outdoor applications
- · Solid state reliability
- · Water clear optics
- · Standard 100 mil. lead spacing



NOTES:

- 1. Dimensions for all drawings are in inches (mm).
- 2. Lead spacing is measured where the leads emerge from the package.
- 3. Protruded resin under the flange is 1.5 mm (0.059") max.

DESCRIPTION

This T-1 3/4 super bright LED has a viewing angle of 45° for concentrated light output. The MV804X series is made with an AllnGaP LED that emits red light at 640 nm. It is encapsulated in a water clear epoxy lens package.

ABSOLUTE MAXIMUM RATINGS (TA	SSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise specified)				
Parameter	Symbol	Rating	Unit		
Operating Temperature	T _{OPR}	-40 to +100	°C		
Storage Temperature	T _{STG}	-40 to +100	°C		
Lead Soldering Time	T _{SOL}	260 for 5 sec	°C		
Continuous Forward Current	I _F	30	mA		
Peak Forward Current	1	160	m A		
(f = 1.0 KHz, Duty Factor = 1/10)	I _F	100	mA		
Reverse Voltage	V _R	5	V		
Power Dissipation	P _D	85	mW		



SUPER RED	MV804X
MV8041 MV8042	
MV8043	

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)					
Part Number	MV8041	MV8042	MV8043	Condition	
Luminous Intensity (mcd)				$I_F = 20 \text{mA}$	
Minimum	160	250	400		
Typical	240	370	600		
Forward Voltage (V)				$I_F = 20 \text{mA}$	
Maximum	2.8	2.8	2.8		
Typical	2.1	2.1	2.1		
Peak Wavelength (nm)	640	640	640	I _F = 20mA	
Spectral Line Half Width (nm)	20	20	20	I _F = 20mA	
Viewing Angle (°)	45	45	45	$I_F = 20mA$	

TYPICAL PERFORMANCE CURVES

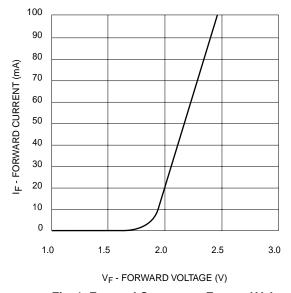


Fig. 1 Forward Current vs. Forward Voltage

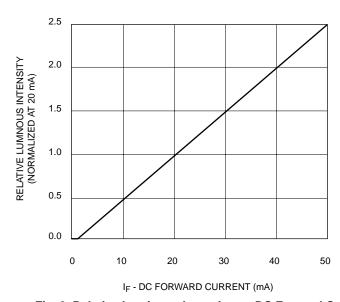
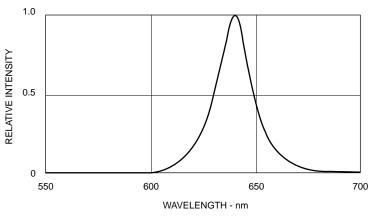


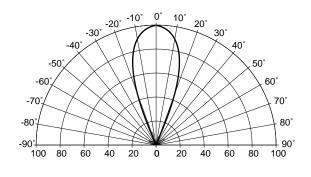
Fig. 2 Relative Luminous Intensity vs. DC Forward Current



SUPER RED MV8041 MV8042 MV8043 **MV804X**







REL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

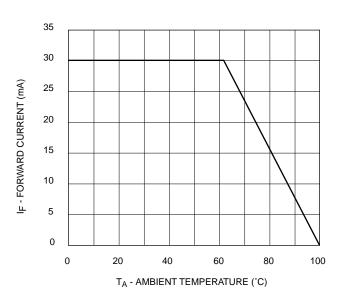


Fig. 5 Current Derating Curve



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