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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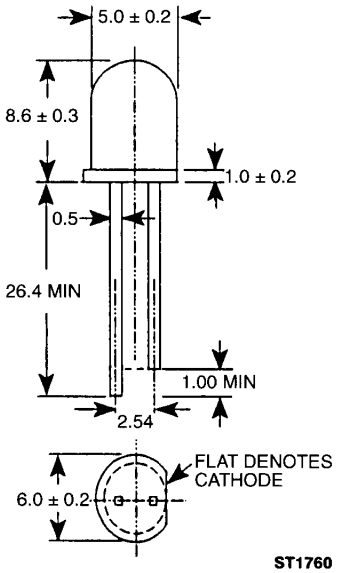
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

FAIRCHILD
SEMICONDUCTOR™

SUPER BRIGHT T-1¾ (5 mm) LED LAMPS

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

PACKAGE DIMENSIONS



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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

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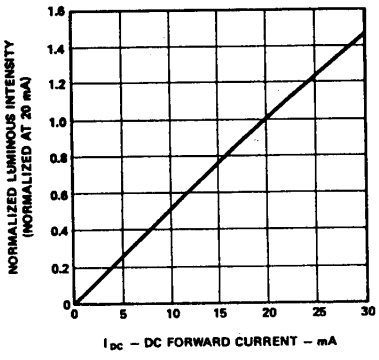
SUPER BRIGHT T-1¾ (5 MM) LED LAMPS

ELECTRO-OPTICAL CHARACTERISTICS (T_A = 25°C Unless Otherwise Specified)

PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Luminous intensity					
MV8102	250	370		mcd	I_F=20 mA
MV8103	630	940		mcd	I_F=20 mA
MV8104	1000	1500		mcd	I_F=20 mA
Forward voltage	1.5	1.7	2.4	V	I_F=20 mA
Peak wavelength		660		nm	I_F=20 mA
Spectral line half width		40		nm	I_F=20 mA
Reverse breakdown voltage		5		V	I_R=10 μA
Viewing angle		20		degree	I_F=20 mA

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (T_A = 25°C)



ST1002

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

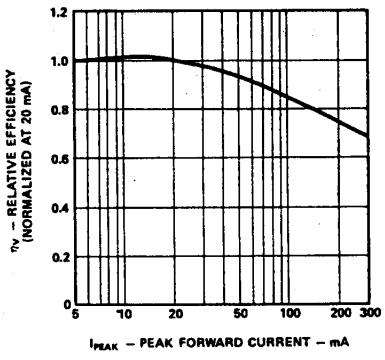


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Fig. 2. Relative Efficiency vs. Peak Foreward Current

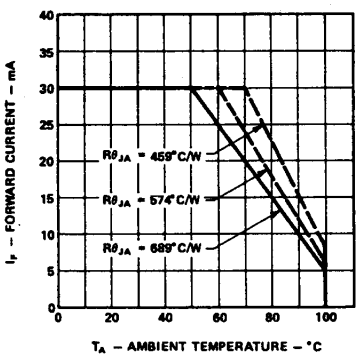

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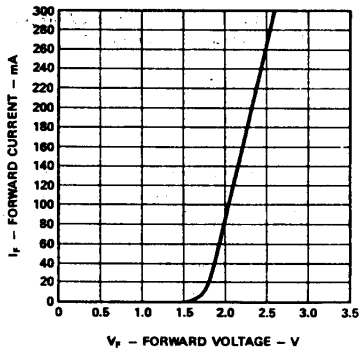
Fig. 3. Maximum Forward DC Current vs. Ambient Temperature Derating Based On TjMAX = 110°



ST1763

Fig. 4. Forward Current vs. Forward Voltage

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SUPER BRIGHT T-1¾ (5 mm) LED LAMPS

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (T_A=25°C)

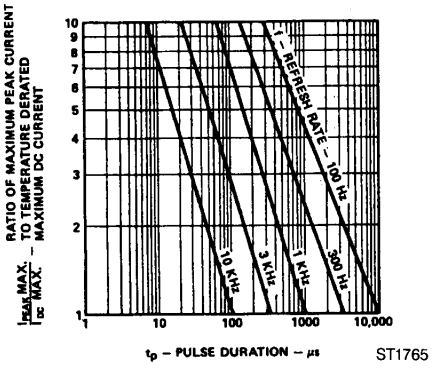

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Fig. 5. Maximum Peak Current vs. Pulse Duration

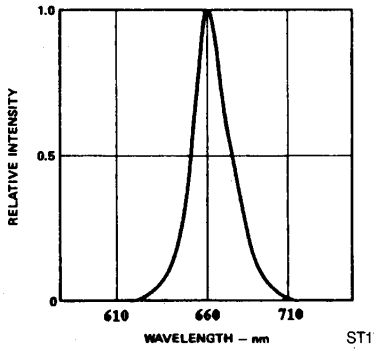

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Fig. 6. Relative Intensity vs. Wavelength

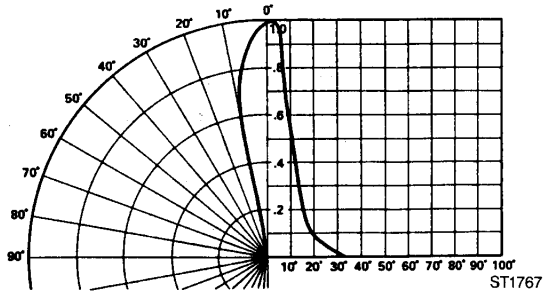

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Fig. 7. Relative Luminous Intensity vs. Angular Displacement

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

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.