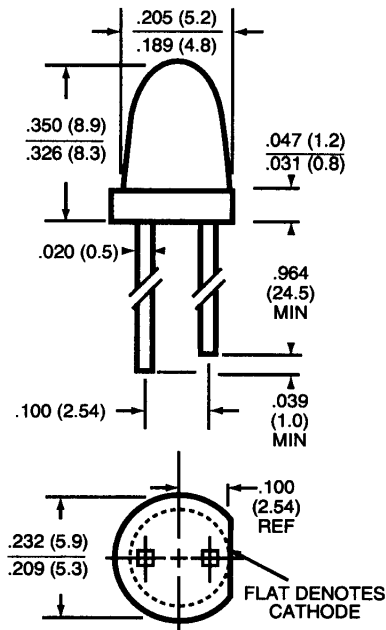


SUPER BLUE

MV8B11

MV8B12

PACKAGE DIMENSIONS



- Note: 1) All dimensions are in inches (mm).
 2) Lead spacing is measured where the leads emerge from the package.
 3) Protruded resin under the flange is 1.5mm (0.059") max.

DESCRIPTION

These T-1 3/4 super-bright blue LEDs have a narrow viewing angle of 10° for concentrated light output. The blue diode chip is constructed with GaN/SiC technology and emits a peak wavelength of 430 nm.

FEATURES

- Popular T-1 3/4 package
- Low drive current
- Solid state reliability
- Super high brightness
- Water clear optics
- Standard 100 mil. lead spacing

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

DC Forward Current (I _F)	30 mA
Peak Forward Current (I _F) @ f = 1.0 KHz, Duty factor = 1/10	100 mA
Power Dissipation (P _d)	115 mW
Reversed Voltage (V _R) I _R = 10 μA	5
Operating Temperature Range	-40°C to +100°C
Storage Temperature Range	-40°C to +100°C
Lead Soldering Time	5 secs @ 260°C for wave solder; 10 secs @ 260°C for IR reflow

ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Part Number:	<u>MV8B11</u>	<u>MV8B12</u>	<u>Test Condition</u>
Luminous Intensity (mcd)			I _F = 20 mA
Minimum	400	630	
Typical	600	940	
Forward Voltage (V_F)			I _F = 20 mA
Typical	3.8	3.8	
Maximum	4.5	4.5	
Peak Wavelength (nm)	430	430	I _F = 20 mA
Spectral Line Half Width (nm)	65	65	I _F = 20 mA
Viewing Angle (degrees)	10	10	I _F = 20 mA

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

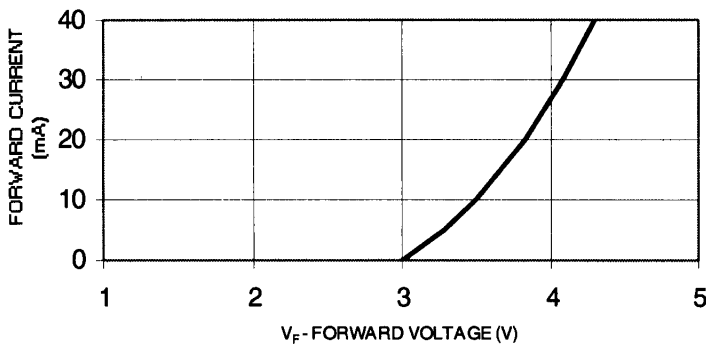


Fig 1. Forward Current vs. Forward Voltage

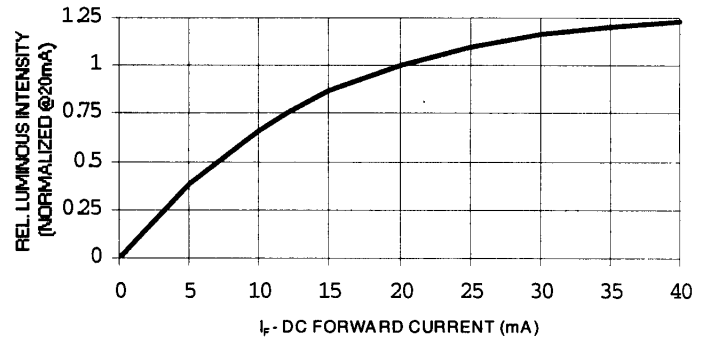


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

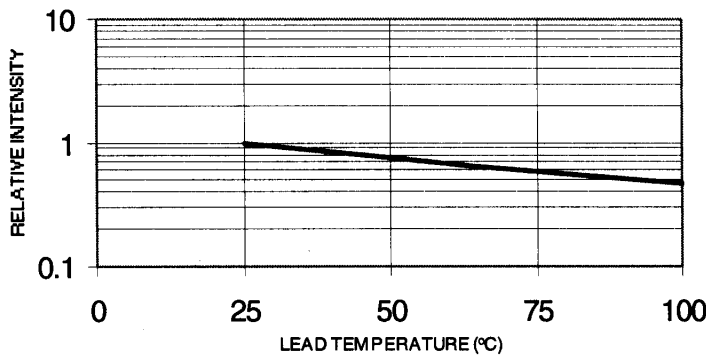


Fig 3. Rel. Intensity vs. Lead Temperature
(Pulsed 20 mA; 300 us pulse, 10 ms period)

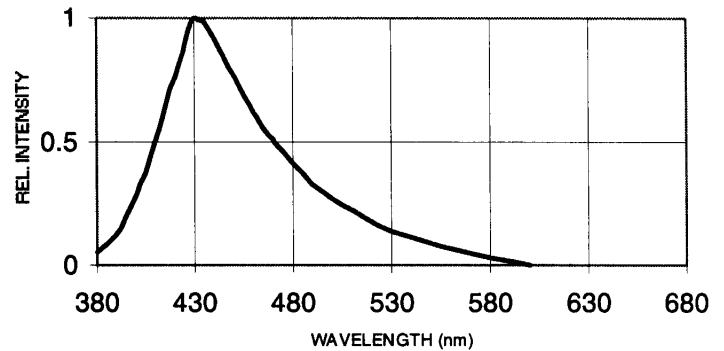


Fig 4. Rel. Intensity vs. Wavelength

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

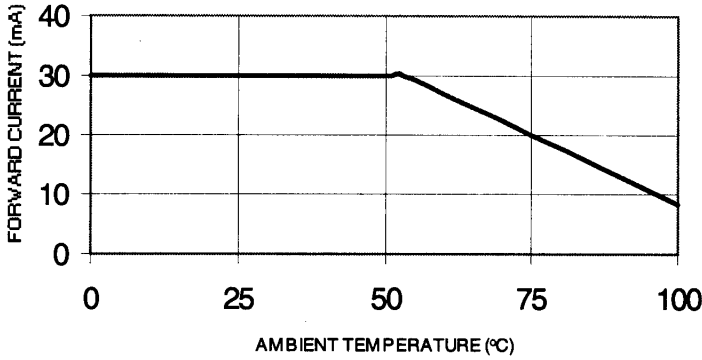


Fig 5. Forward Current vs. Ambient Temperature

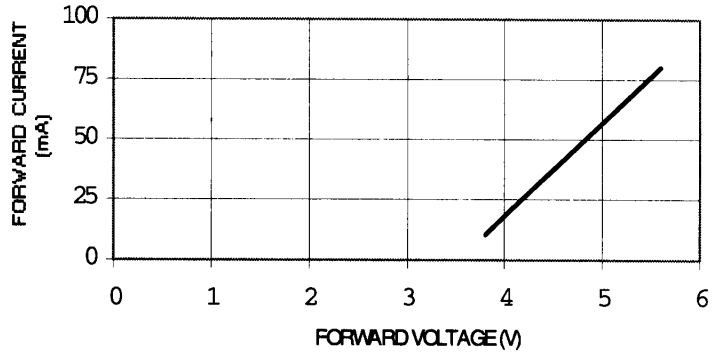


Fig. 6 Peak Forward Voltage vs. Forward Current
(100 us test pulse, 1% duty cycle)

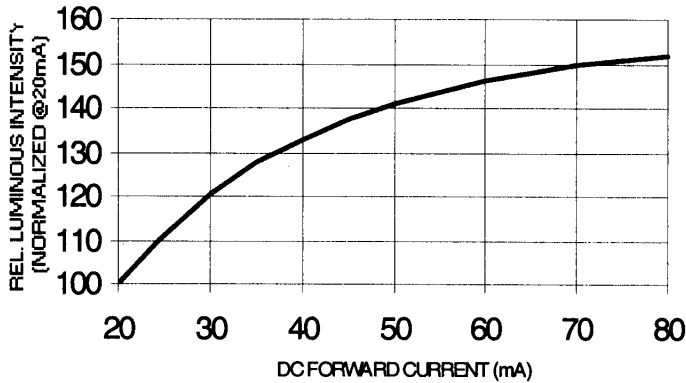


Fig. 7 Rel. Luminous Intensity vs. Peak Forward Current
(300 us pulse width; 10 ms period)

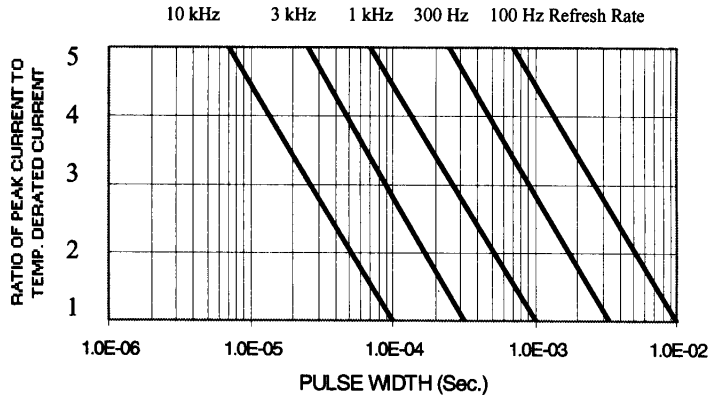


Fig. 8 Pulse Derating Curve

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