Wide-Angle Red GaAsP LED Lamps

Optoelectronic Products

MV5055
MV5056

General Description

The MV5055 and MV5056 are red light-emitting diodes encapsulated in diffused plastic. These LED devices provide an intense large-area light source. Visual light emission is in the 600 nm to 700 nm range. The design has maximized viewing angle.

Solid State Thus No Replacement Required
No Socket Required
High On/Off Contrast
Flexible Pins On All Lamps
For Good Heat Sinking
For Right-Angle Bending
Fits Standard Sockets For Drilled Holes
Single Molded Body Eliminates
Thermal Cycling Problems
High-Temperature Epoxy Encapsulation Withstand
Severe Environmental Temperatures
Low Power Consumption Means IC Compatibility
MV5055 In Red Diffused Epoxy
MV5056 In Red Diffused Epoxy

Absolute Maximum Ratings

Maximum Temperature and Humidity

Operating Temperature	−55°C to +110°C
Storage Temperature	−55°C to +100°C
Pin Temperature (Soldering, 5 s)	260°C
Relative Humidity at 85°C	85%

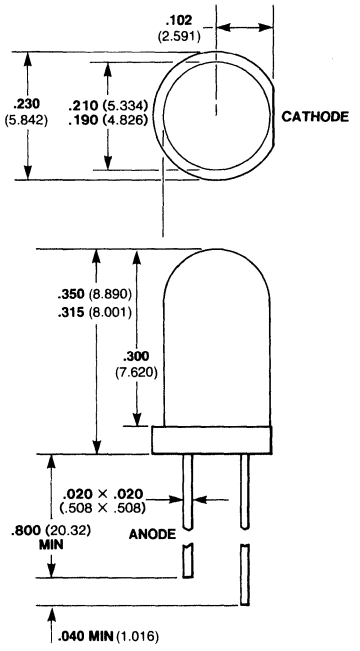
Maximum Power Dissipation

Total Dissipation at T_A = 25°C	180 mW
Derate Linearly from 25°C	2 mW/°C

Maximum Voltage and Currents

V_R	Reverse Voltage	5.0 V
I_F	Forward dc Current at T_A = 25°C	100 mA
	Forward dc Current at T_A = 100°C	15 mA
I_{pk}	Peak Forward Current, 1.0 μs pulse	1.0 A

Package Outline



Notes
All dimensions in inches **bold** and milimeters (parentheses)
Tolerance unless specified = ±.015 (0.381)

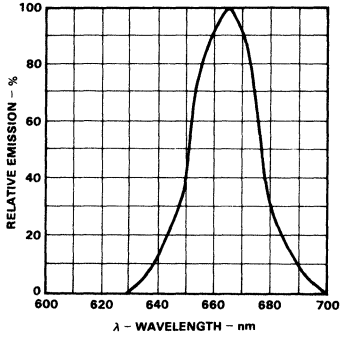
Typical Electrical Characteristics

MV5055
MV5056

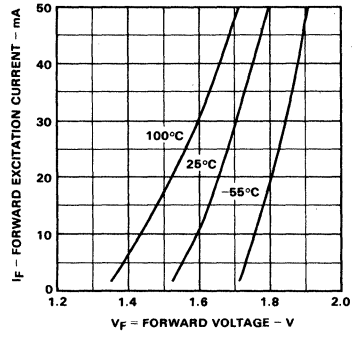
Electrical and Radiant Characteristics $T_A = 25°C$

Symbol	Characteristic	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage		1.7	2.2	V	I_F = 20 mA
V_R	Reverse Voltage	5.0	25		V	I_R = 100 μA
I_O	Axial Luminous Intensity				mcd	I_F = 20 mA
	MV5055	0.1	0.6			
	MV5056	0.2	0.8			
θ	Viewing Angle Total				degrees	I_F = 20 mA
	MV5055		150			
	MV5056		110			
λ_{pk}	Peak Wavelength		660		nm	I_F = 20 mA

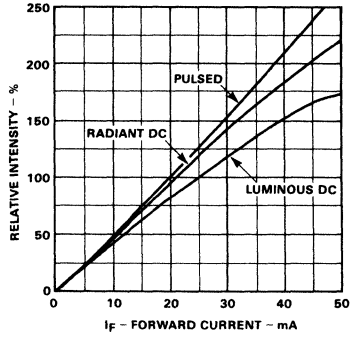
Emission Spectrum



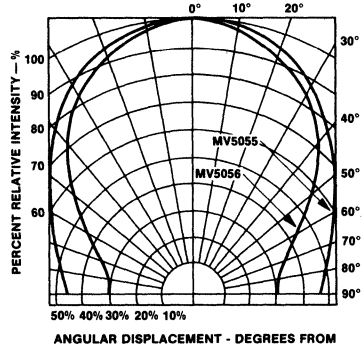
Forward Current vs Forward Voltage



Intensity vs Forward Current



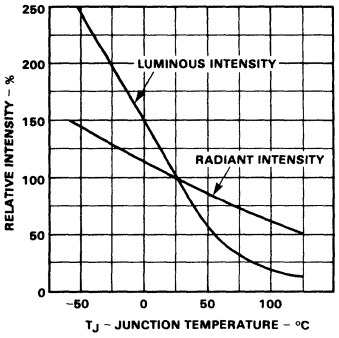
Intensity vs Angle



Typical Electrical Characteristic Curves

MV5055
MV5056

Intensity vs Temperature



Wavelength vs Temperature