



**FEATURES**

- Wide Temperature Rating
- 2 Lead TO-39 Package
- Narrow Angle of Emission
- Isolated Case
- RoHS and REACH Compliant

**Electro-Optical Characteristics at 25°C**

Parameters	Test Conditions	Min	Typ	Max	Units
Total Power Output, P <sub>o</sub>	I <sub>F</sub> = 500 mA	50	100		mW
Peak Emission Wavelength, λ <sub>P</sub>	I <sub>F</sub> = 50 mA		880		nm
Spectral Bandwidth at 50%, Δλ	I <sub>F</sub> = 50 mA		55		nm
Half Intensity Beam Angle, θ	I <sub>F</sub> = 50 mA		7		Deg
Forward Voltage, V <sub>F</sub>	I <sub>F</sub> = 500 mA		1.75	2	Volts
Reverse Breakdown Voltage, V <sub>R</sub>	I <sub>R</sub> = 10 μA	5	30		Volts
Capacitance, C	V <sub>R</sub> = 0 V				pF
Rise Time			20		nsec
Fall Time			20		nsec

**Absolute Maximum Ratings at 25°C Case**

Parameters	Units
Power Dissipation <sup>1</sup>	1000 mW
Continuous Forward Current	500 mA
Peak Forward Current (10 μs, 200 Hz) <sup>2</sup>	1.5 A
Reverse Voltage	5 V
Lead Soldering Temperature (1/16" from case for 10 sec)	260°C

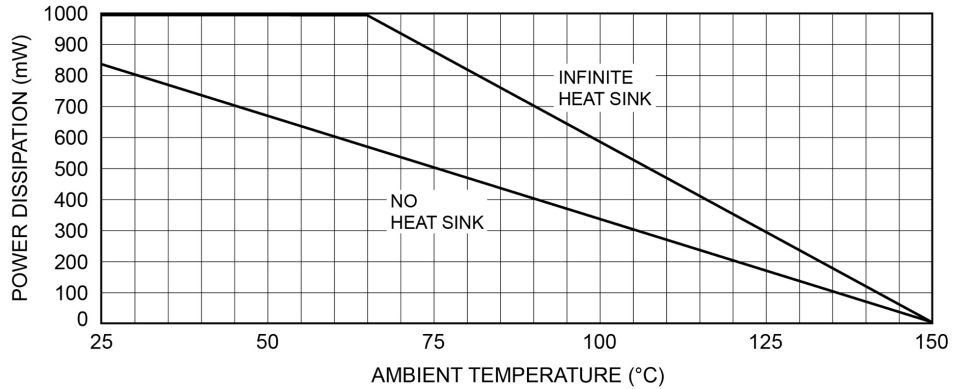
<sup>1</sup> Derate per thermal derating curve above 25°C.

<sup>2</sup> Derate linearly above 25°C.

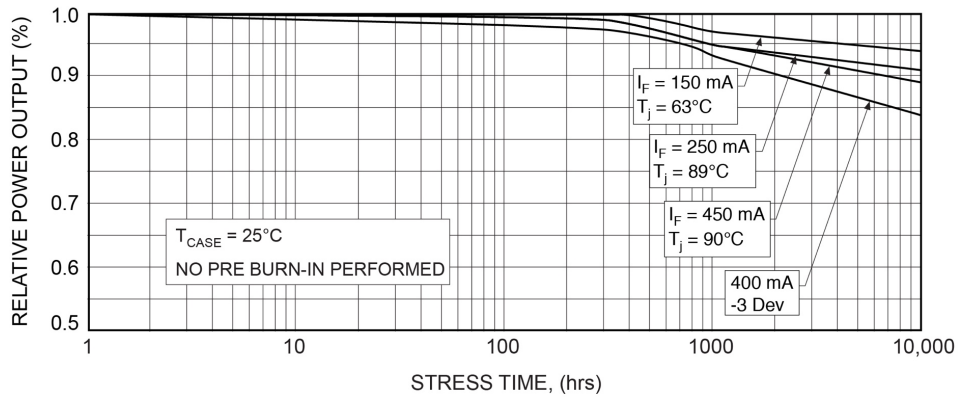
**Thermal Parameters**

Parameters	Units
Storage and Operating Temperature Range	-65°C to 150°C
Maximum Junction Temperature	150°C
Thermal Resistance, R <sub>THJA</sub>	150°C/W Typical
Thermal Resistance, R <sub>THJC</sub>	60°C/W Typical

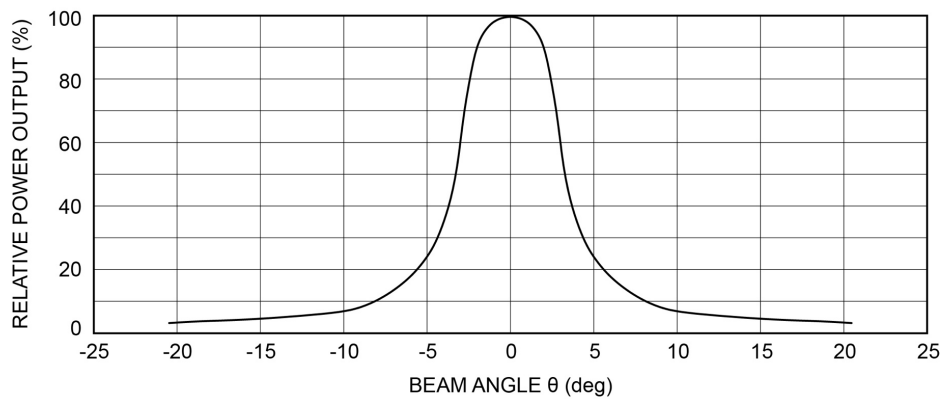
Maximum Rated Thermal Derating Curve



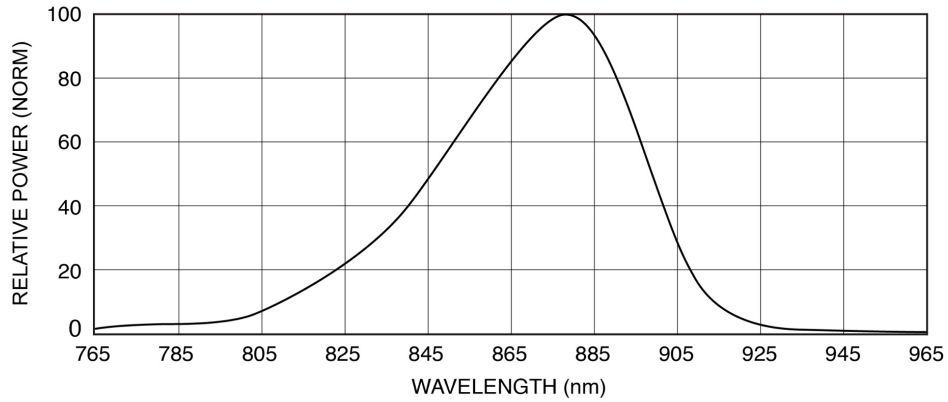
Typical Degradation Curve



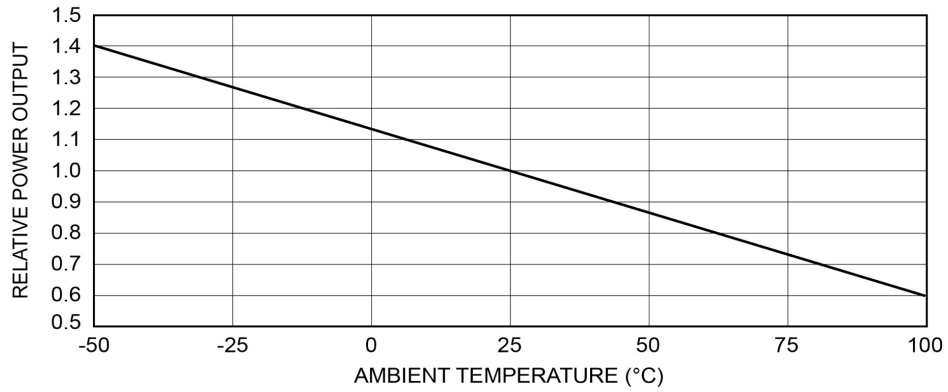
Typical Radiation Pattern



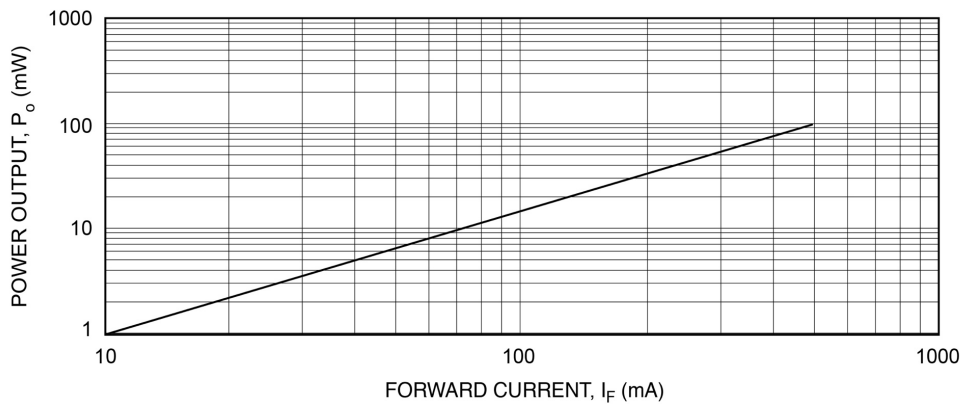
Typical Spectral Output (50 mA, Typical)



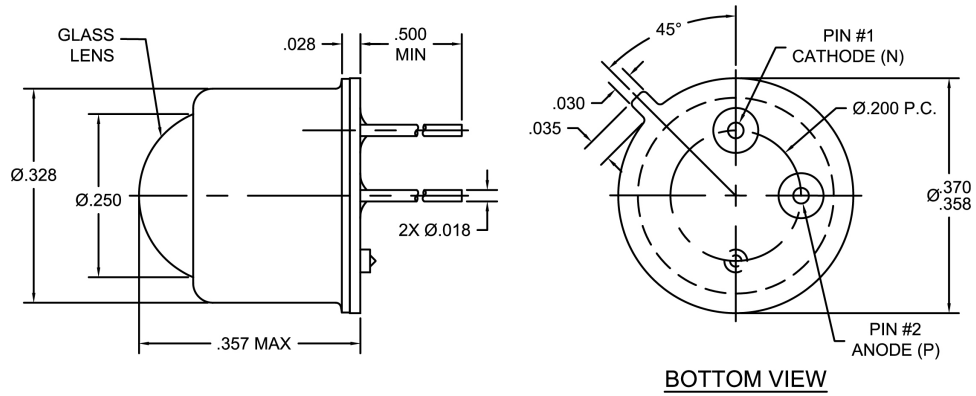
Typical Power Output vs Temperature



Typical Power Output vs Forward Current



Package Information



Specifications are subject to change without prior notice.