

**FEATURES**

- Ultra high optical output
- Four wire bonds on die corners
- Very narrow optical beam
- Standard 3-lead TO-39 hermetic package
- Chip size: 0.026 x 0.026

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Two Anode pins **must be** externally connected together.



**ELECTRO-OPTICAL CHARACTERISTICS AT 25°C**

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P <sub>O</sub>	I <sub>F</sub> = 500mA	55	110		mW
Peak Emission Wavelength, λ <sub>p</sub>	I <sub>F</sub> = 50mA		850		nm
Spectral Bandwidth at 50%, Δλ	I <sub>F</sub> = 50mA		40		nm
Half Intensity Beam Angle, θ	I <sub>F</sub> = 50mA		7		Deg
Forward Voltage, V <sub>F</sub>	I <sub>F</sub> = 500mA		1.7	2	Volts
Reverse Breakdown Voltage, V <sub>R</sub>	I <sub>R</sub> = 10μA	5	30		Volts
Rise Time	I <sub>FP</sub> = 50mA		20		nsec
Fall Time	I <sub>FP</sub> = 50mA		20		nsec

**ABSOLUTE MAXIMUM RATINGS AT 25°C CASE**

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

<sup>1</sup>Derate per Thermal Derating Curve above 25°C

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

**THERMAL PARAMETERS**

Storage and Operating Temperature Range	-40°C to 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R <sub>THJA</sub> <sup>1</sup>	150°C/W Typical
Thermal Resistance, R <sub>THJA</sub> <sup>2</sup>	60°C/W Typical

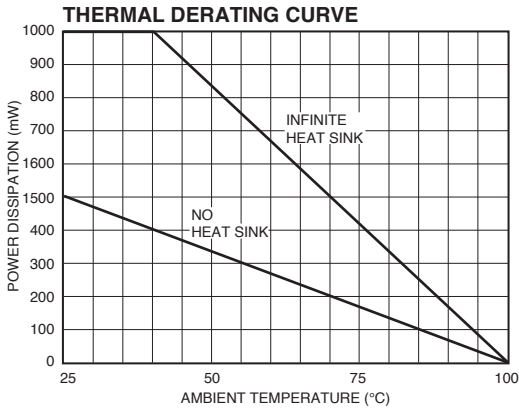
<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

<sup>2</sup>Air circulating at a rapid rate to keep case temperature at 25°C



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MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

