



FEATURES

- Ultra high optical output
- Four wire bonds on die corners
- Very uniform 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 _O	I _F = 500mA	80	140		mW
Peak Emission Wavelength, λ _p	I _F = 50mA		850		nm
Spectral Bandwidth at 50%, Δλ	I _F = 50mA		40		nm
Half Intensity Beam Angle, θ	I _F = 50mA		110		Deg
Forward Voltage, V _F	I _F = 500mA		1.7	2	Volts
Reverse Breakdown Voltage, V _R	I _R = 10μA	5	30		Volts
Rise Time	I _{FP} = 50mA		20		nsec
Fall Time	I _{FP} = 50mA		20		nsec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

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

¹Derate per Thermal Derating Curve above 25°C

²Derate linearly above 25°C

THERMAL PARAMETERS

Storage and Operating Temperature Range	-40°C to 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R _{THJA} ¹	145°C/W Typical
Thermal Resistance, R _{THJA} ²	75°C/W Typical

¹Heat transfer minimized by measuring in still air with minimum heat conducting through leads

²Air circulating at a rapid rate to keep case temperature at 25°C



