

FEATURES

- Ultra high power output
- Four wire bonds on die corners
- Very uniform optical beam
- Standard 3-lead TO-39 hermetic package
- Chip size .030 x .030 inches

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

ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_o	$I_F = 500mA$ $I_F = 10A$	80	100 1300		mW
Radiant Intensity, I_e	$I_F = 500mA$		60		mW/sr
Peak Emission Wavelength, ρ	$I_F = 50mA$		880		nm
Spectral Bandwidth at 50%,			80		nm
Half Intensity Beam Angle,				110	
Forward Voltage, V_F	$I_F = 500mA$		1.65	2	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10 A$	5	30		Volts
Capacitance, C	$V_R = 0V$		90		pF
Rise Time			0.7		sec
Fall Time			0.7		sec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

Power Dissipation ¹	1000 mW
Continuous Forward Current	500mA
Peak Forward Current (10 s, 400Hz) ²	10A
Reverse Voltage	5V
Lead Soldering Temperature (1/16" from case for 10sec)	240°C

¹Derate per Thermal Derating Curve above 25°C

²Derate linearly above 25°C

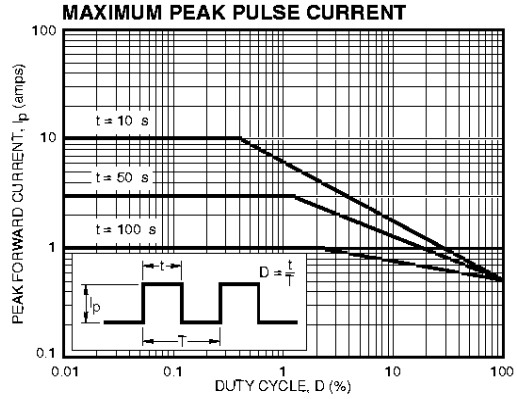
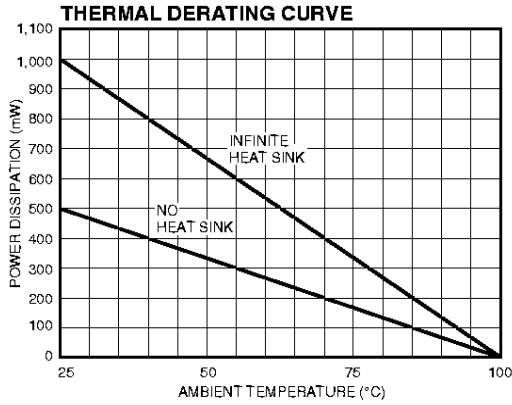
THERMAL PARAMETERS

Storage and Operating Temperature Range	-55°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

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

