

**FEATURES**

- High reliability liquid-phase epitaxially grown GaAlAs
- 880nm peak emission for optimum matching with ODD-45W photodiode
- Wide range of linear power output
- Hermetically sealed TO-46 package
- Wide emission angle to cover a large area

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.



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

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P <sub>o</sub>	I <sub>F</sub> = 100mA	18	20		mW
Radiant Intensity, I <sub>e</sub>			16		mW/sr
Peak Emission Wavelength, λ <sub>p</sub>	I <sub>F</sub> = 50mA		880		nm
Spectral Bandwidth at 50%, Δλ			80		nm
Half Intensity Beam Angle, θ		70	80		Deg
Forward Voltage, V <sub>F</sub>	I <sub>F</sub> = 100mA		1.55	1.9	Volts
Reverse Breakdown Voltage, V <sub>R</sub>	I <sub>R</sub> = 10μA	5	30		Volts
Capacitance, C	V <sub>R</sub> = 0V		17		pF
Rise Time			0.5		μsec
Fall Time			0.5		μsec

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

Power Dissipation <sup>1</sup>	190mW
Continuous Forward Current	100mA
Peak Forward Current (10μs, 400Hz) <sup>2</sup>	3A
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	-55°C TO 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R <sub>THJA</sub> <sup>1</sup>	400°C/W Typical
Thermal Resistance, R <sub>THJA</sub> <sup>2</sup>	135°C/W Typical

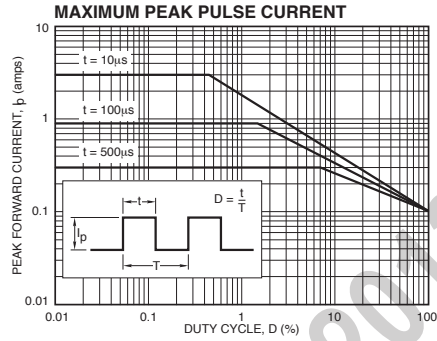
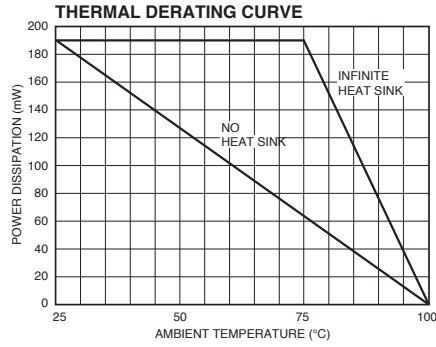
<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

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



750 Mitchell Road, Newbury Park, California 91320  
 Phone: (805) 499-0335, Fax: (805) 499-8108  
 Email: sales@optodiode.com, Website: www.optodiode.com

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

