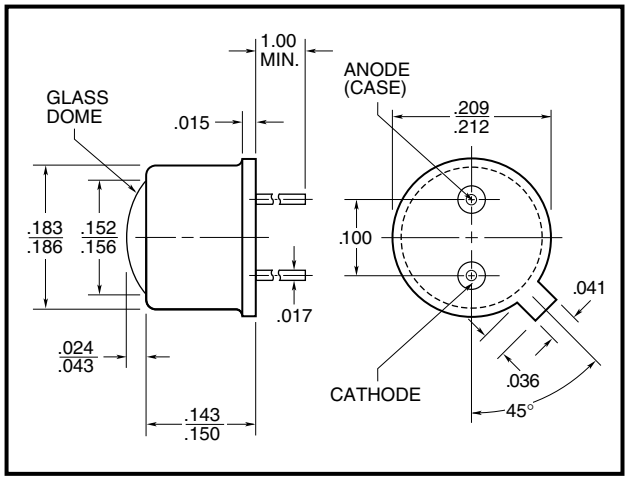
HIGH-POWER GaAlAs IR EMITTERS OD-880L



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
- Medium emission angle for best coverage/power density

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_O	I_F = 100mA	18	20		mW
Radiant Intensity, I_e			50		mW/sr
Peak Emission Wavelength, λ_P	I_F = 50mA		880		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			80		nm
Half Intensity Beam Angle, θ			35		Deg
Forward Voltage, V_F	I_F = 100mA		1.55	1.9	Volts
Reverse Breakdown Voltage, V_R	I_R = 10µA	5	30		Volts
Capacitance, C	V_R = 0V		17		pF
Rise Time			0.5		µsec
Fall Time			0.5		µsec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

Power Dissipation[1]	190mW
Continuous Forward Current	100mA
Peak Forward Current (10µs, 400Hz)[2]	3A
Reverse Voltage	5V
Lead Soldering Temperature (1/16" from case for 10sec)	240°C

[1]Derate per Thermal Derating Curve above 25°C
[2]Derate linearly above 25°C

THERMAL PARAMETERS

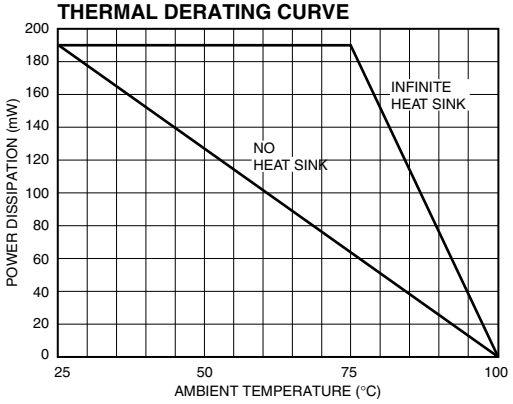
Storage and Operating Temperature Range	-55°C TO 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R_{THJA}[1]	400°C/W Typical
Thermal Resistance, R_{THJA}[2]	135°C/W Typical

[1]Heat transfer minimized by measuring in still air with minimum heat conducting through leads
[2]Air circulating at a rapid rate to keep case temperature at 25°C

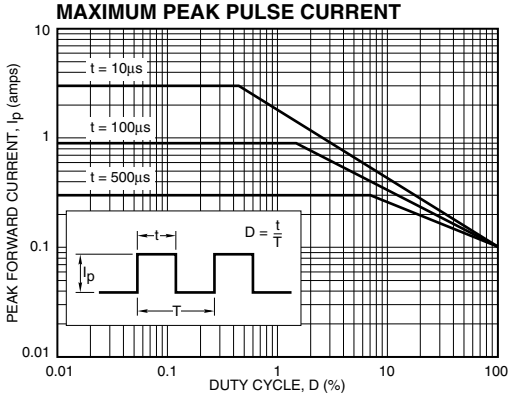
OPTO DIODE CORP.
750 Mitchell Road, Newbury Park, California 91320
Phone: (805) 499-0335 Fax: (805) 499-8108
Email: sales@optodiode.com Web Site: www.optodiode.com

MAXIMUM RATINGS

THERMAL DERATING CURVE

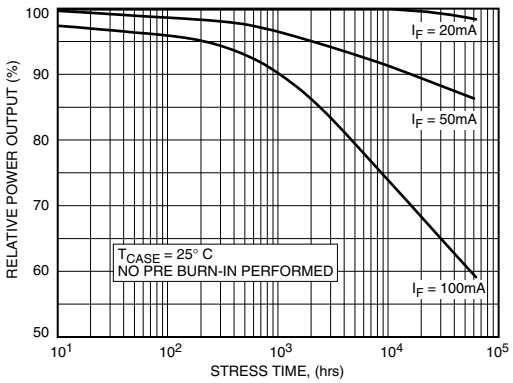


MAXIMUM PEAK PULSE CURRENT

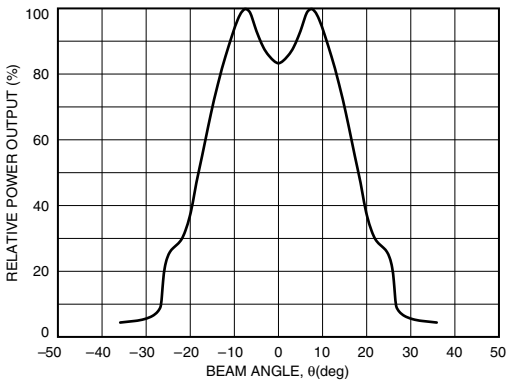


TYPICAL CHARACTERISTICS

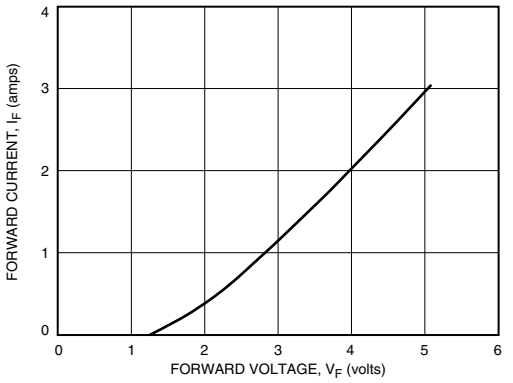
DEGRADATION CURVE



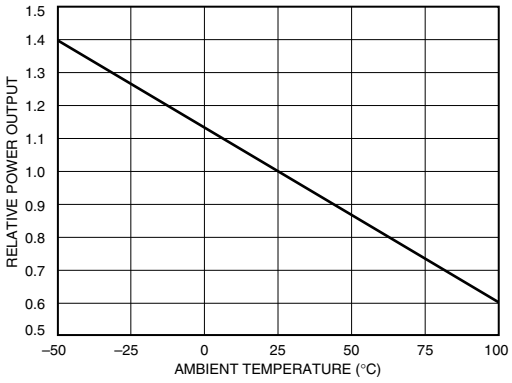
RADIATION PATTERN



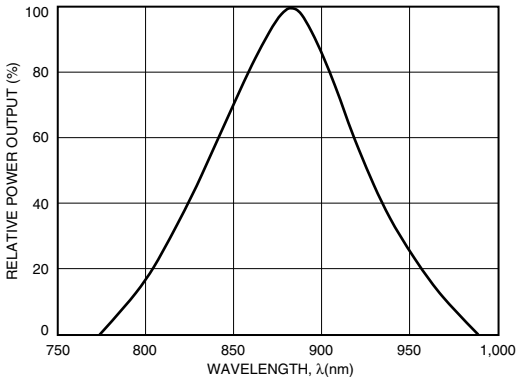
FORWARD I-V CHARACTERISTICS



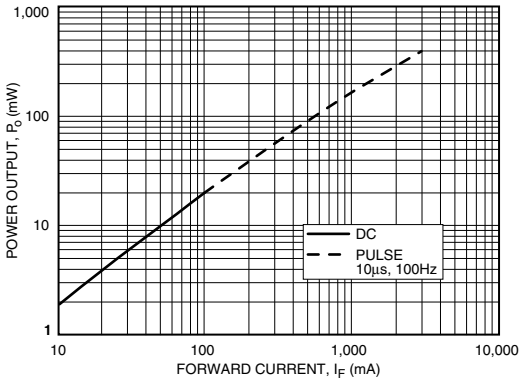
POWER OUTPUT vs TEMPERATURE



SPECTRAL OUTPUT



POWER OUTPUT vs FORWARD CURRENT



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