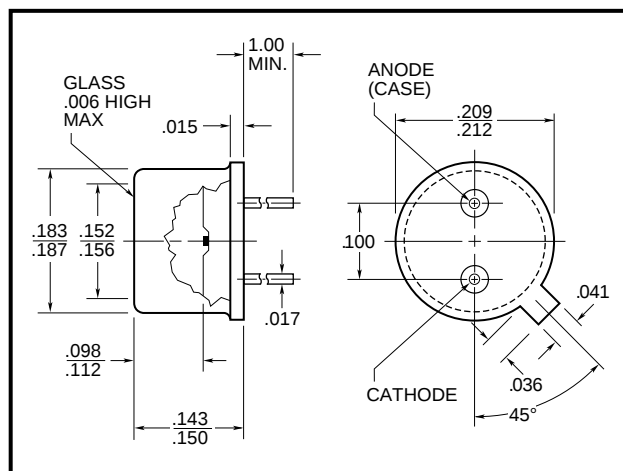



FEATURES

- High reliability LPE GaAlAs IRLEDs
- High power output
- 880nm peak emission
- Hermetically sealed TO-46 package
- MIL-S-19500 screening available
- No internal coatings

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	$I_F = 100\text{mA}$	7	9		mW
Peak Emission Wavelength, λ_P	$I_F = 50\text{mA}$		880		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			80		nm
Half Intensity Beam Angle, θ			80		Deg
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.55	1.9	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	5	30		Volts
Capacitance, C	$V_R = 0\text{V}$		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 (10 μs , 400Hz) ²	3A
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	-65°C TO 150°C
Maximum Junction Temperature	150°C
Thermal Resistance, R_{THJA} ¹	400°C/W Typical
Thermal Resistance, R_{THJA} ²	160°C/W Typical

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

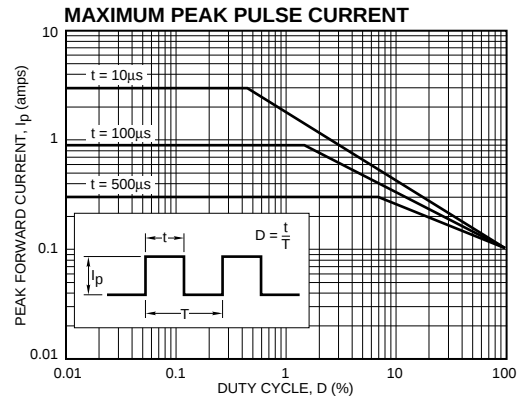
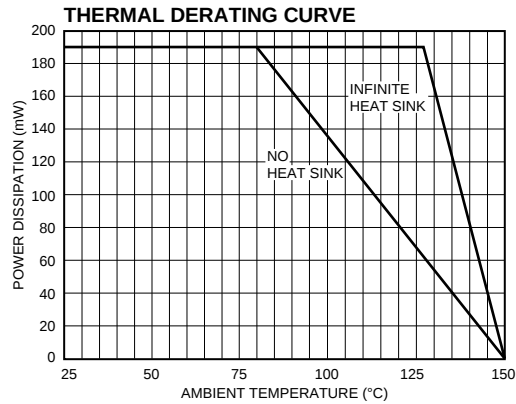
²Air circulating at a rapid rate to keep case temperature at 25°C



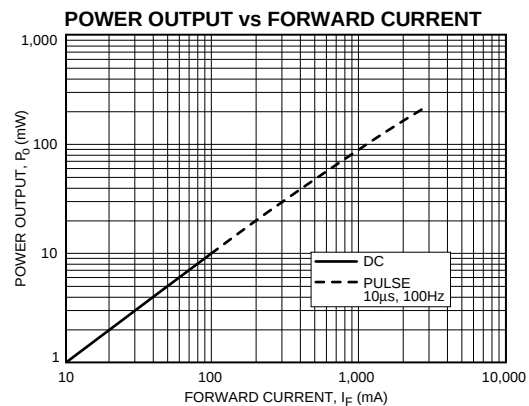
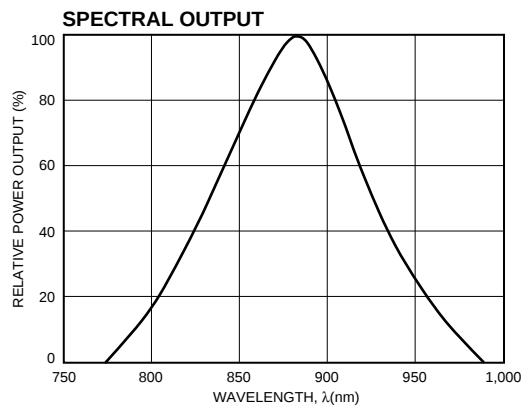
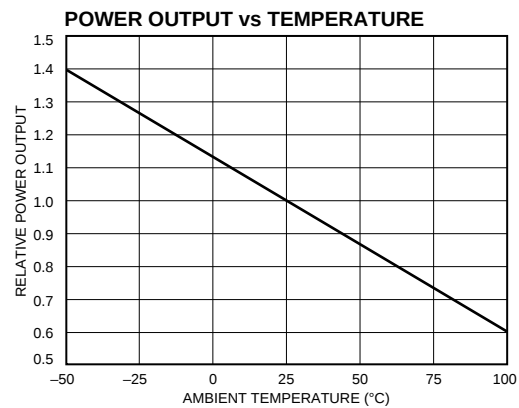
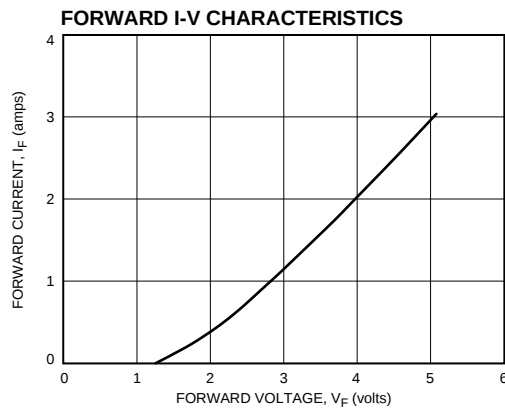
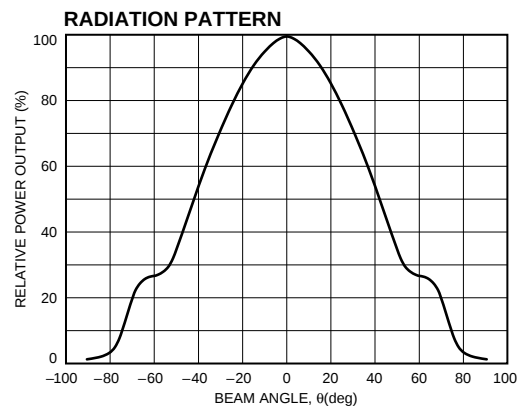
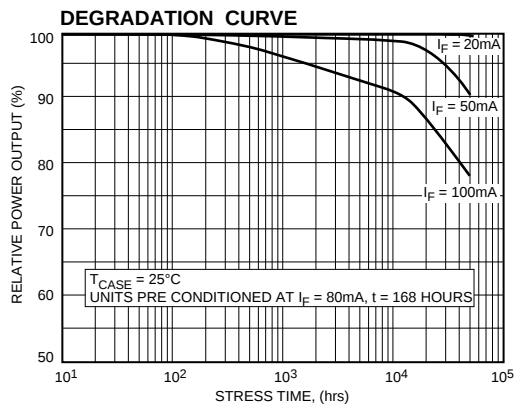
OPTO DIODE CORP.

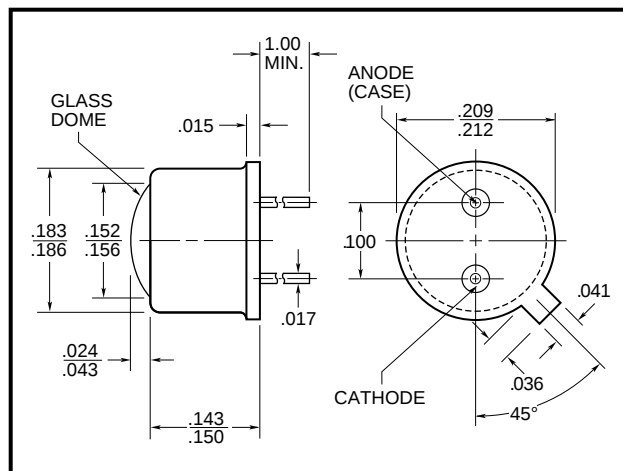
750 Mitchell Road, Newbury Park, California 91320
Phone (805) 499-0335 FAX (805) 499-8108

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS




FEATURES

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ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_O	$I_F = 100\text{mA}$	6	8.5		mW
Peak Emission Wavelength, λ_P	$I_F = 50\text{mA}$		880		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			80		nm
Half Intensity Beam Angle, θ			35		Deg
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.55	1.9	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	5	30		Volts
Capacitance, C	$V_R = 0\text{V}$		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 (10 μs , 400Hz) ²	3A
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	-65°C TO 150°C
Maximum Junction Temperature	150°C
Thermal Resistance, R_{THJA} ¹	370°C/W Typical
Thermal Resistance, R_{THJA} ²	120°C/W Typical

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

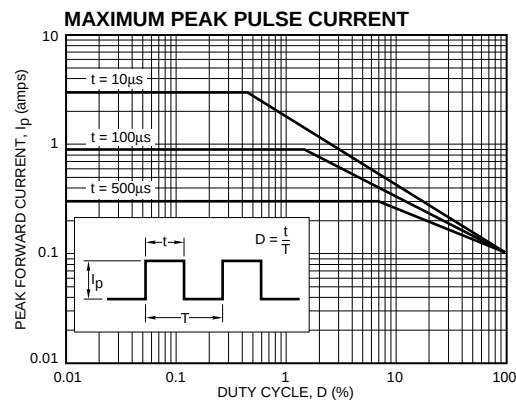
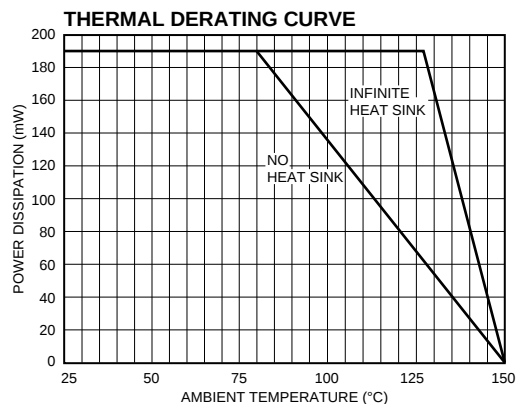
²Air circulating at a rapid rate to keep case temperature at 25°C



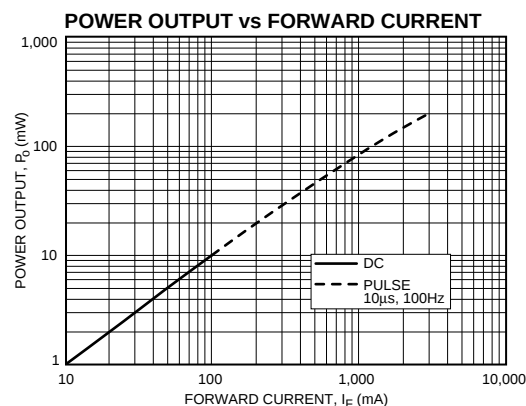
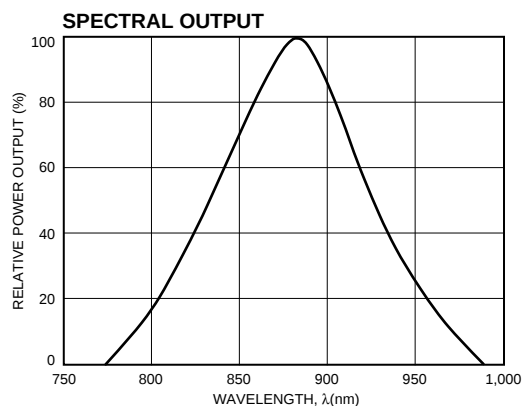
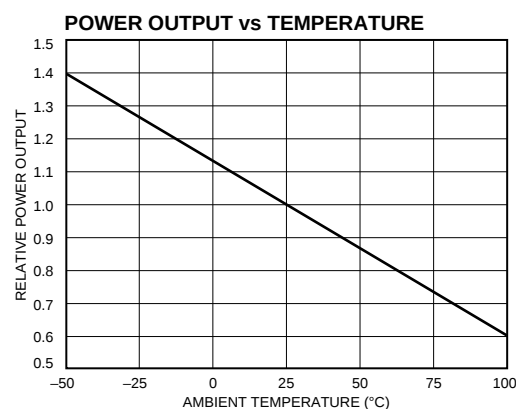
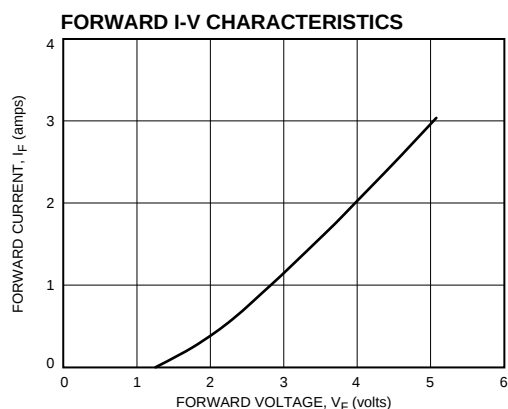
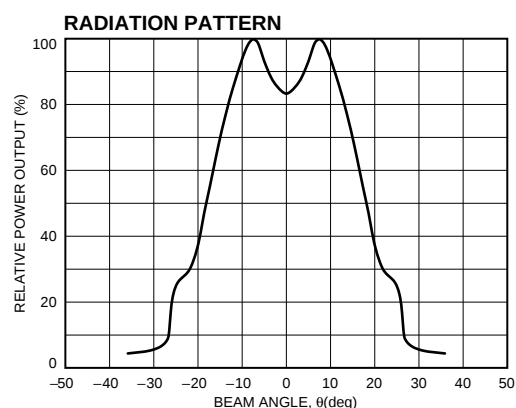
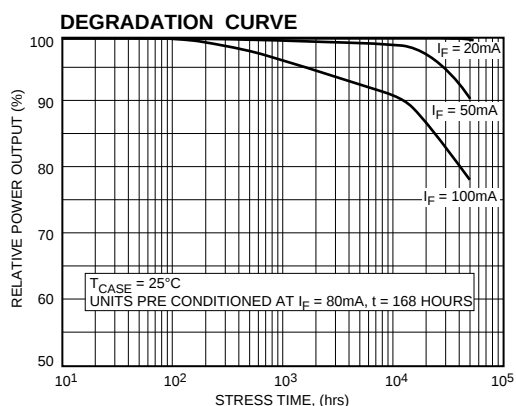
OPTO DIODE CORP.

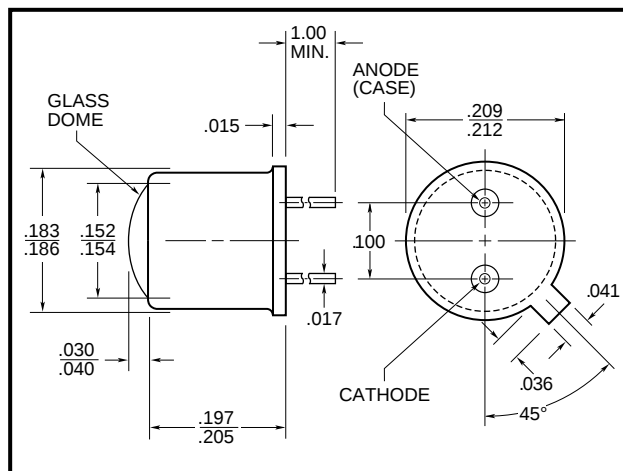
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ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_O	$I_F = 100\text{mA}$	6	8		mW
Peak Emission Wavelength, λ_P	$I_F = 50\text{mA}$		880		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			80		nm
Half Intensity Beam Angle, θ			8		Deg
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.55	1.9	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	5	30		Volts
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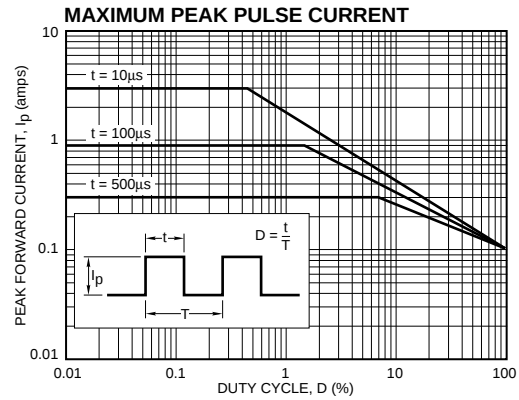
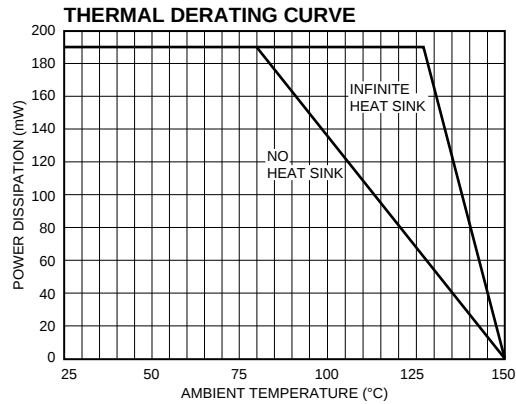
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