

## 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, $P_o$	$I_F = 100\text{mA}$	18	20		mW
Radiant Intensity, $I_e$			50		mW/sr
Peak Emission Wavelength, $\lambda_p$	$I_F = 50\text{mA}$		880		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			80		nm
Half Intensity Beam Angle, $\theta$			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		$\mu\text{sec}$
Fall Time			0.5		$\mu\text{sec}$

## ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

Power Dissipation <sup>1</sup>	190mW
Continuous Forward Current	100mA
Peak Forward Current (10 $\mu\text{s}$ , 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

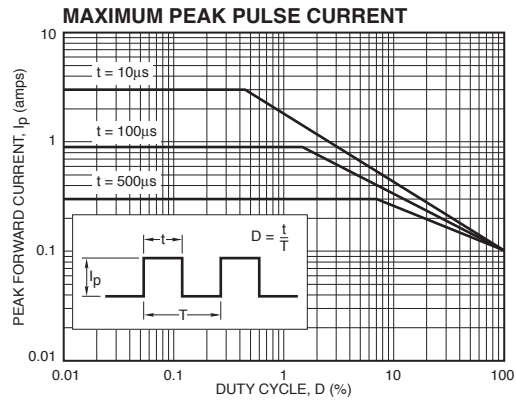
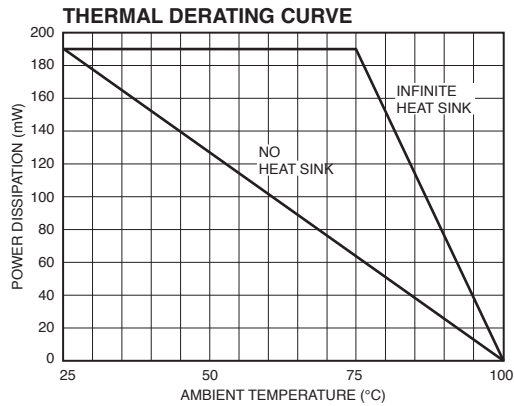
## THERMAL PARAMETERS

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

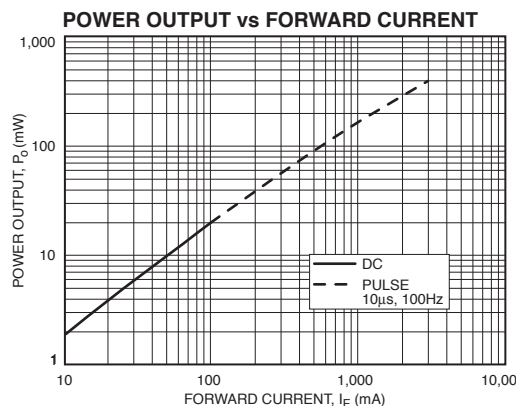
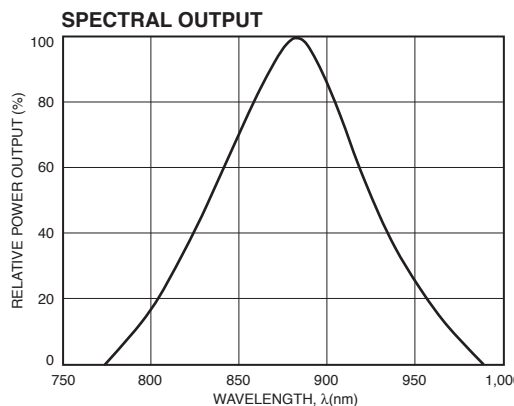
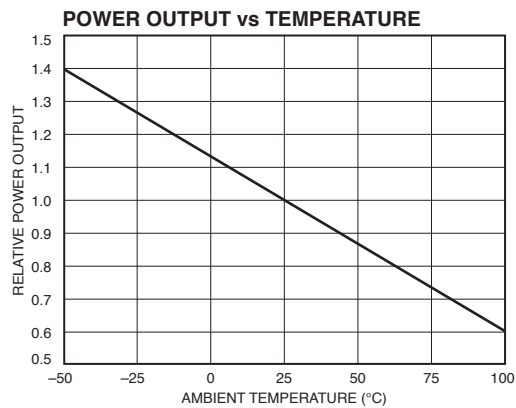
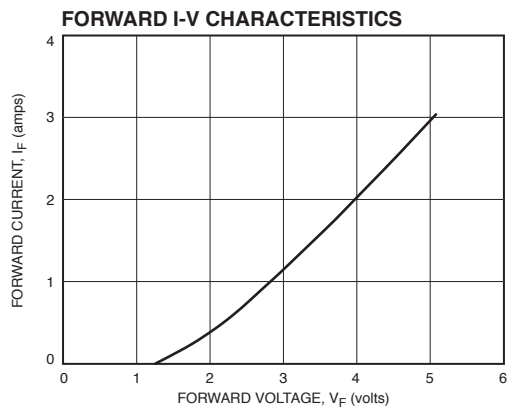
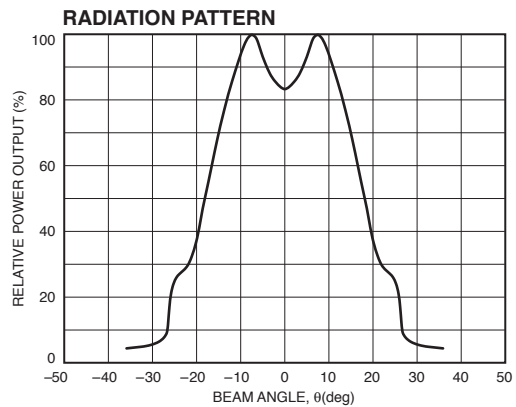
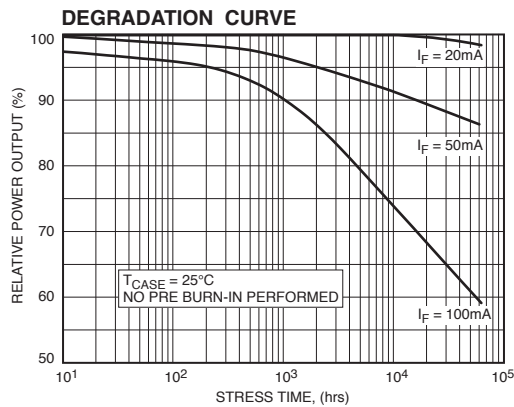


750 Mitchell Road, Newbury Park, California 91320  
 Phone: (805) 499-0335, Fax: (805) 499-8108  
 Email: sales@optodiode.com, Website: www.optodiode.com

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS



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