

### FEATURES

- High output power
- High reliability
- Wide emission angle

### DESCRIPTION

The **PDI-E804** is an 880 nm high power GaAlAs infrared emitter packaged in a TO-46 metal header with a clear epoxy glob top.

### APPLICATIONS

- Photoelectric switches
- Infrared sources
- Optical readers

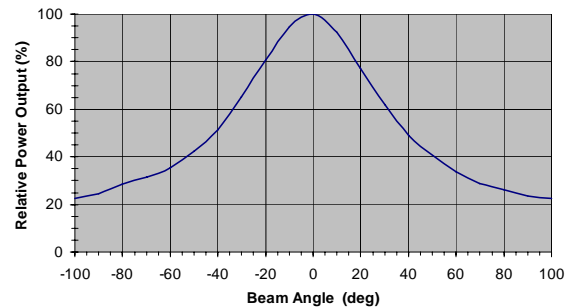


### ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
P <sub>d</sub>	Power Dissipation		160	mW
I <sub>f</sub>	Continuous Forward Current		100	mA
I <sub>p</sub>	Peak Forward Current		3.0	A
V <sub>r</sub>	Reverse Voltage		5	V
T <sub>STG</sub>	Storage Temperature	-40	+100	°C
T <sub>O</sub>	Operating Temperature	-40	+100	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C

\* 1/16 inch from case for 3 seconds max.

### RADIATION PATTERN



### ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>o</sub>	Output Power	I <sub>f</sub> = 100 mA	18	20		mW
V <sub>f</sub>	Forward Voltage	I <sub>f</sub> = 100 mA		1.5	1.9	V
V <sub>r</sub>	Reverse Breakdown Voltage	I <sub>f</sub> = 10 μA	5	30		V
λ <sub>p</sub>	Peak Wavelength	I <sub>f</sub> = 20 mA	865	880	895	nm
Δλ	Spectral Bandwidth @ 50% (FWHM)	I <sub>f</sub> = 20 mA		65		nm
C <sub>t</sub>	Terminal Capacitance	V <sub>r</sub> = 0V, f = 1MHz		17		pF
t <sub>r</sub>	Rise Time	I <sub>f</sub> = 20 mA		0.75		μs
t <sub>f</sub>	Fall Time	I <sub>f</sub> = 20 mA		0.40		μs

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. © 2007 Advanced Photonix, Inc. All rights reserved.