

FEATURES

- High output power
- High reliability
- Narrow emission angle

DESCRIPTION

The **PDI-E803** is an 880 nm high power GaAlAs infrared emitter, packaged in a hermetic TO-46 metal header with a dome window glass.

APPLICATIONS

- Photoelectric switches
- Infrared sources
- Optical readers

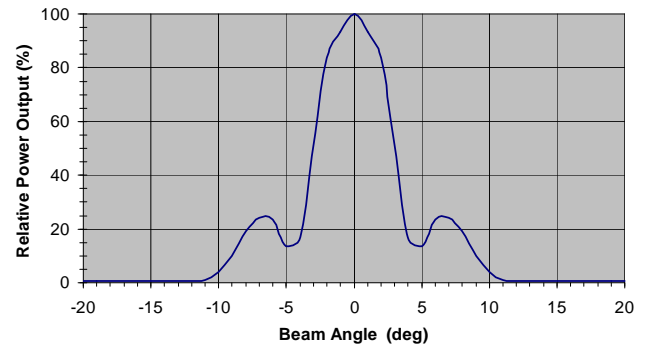


ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
P _d	Power Dissipation		160	mW
I _f	Continuous Forward Current		100	mA
I _p	Peak Forward Current		3.0	A
V _r	Reverse Voltage		5	V
T _{STG}	Storage Temperature	-55	+100	°C
T _O	Operating Temperature	-55	+100	°C
T _S	Soldering Temperature*		+240	°C

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

RADIATION PATTERN



RELIABILITY

This API high-reliability detector is in principle able to meet military test requirements (Mil-Std-750, Mil-Std-883) after proper screening and group test. Contact API for recommendations on specific test conditions and procedures.

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _o	Output Power	I _f = 100 mA	7.8	9		mW
V _f	Forward Voltage	I _f = 100 mA		1.5	1.9	V
V _r	Reverse Breakdown Voltage	I _f = 10 μA	5	30		V
λ _p	Peak Wavelength	I _f = 20 mA	865	880	895	nm
Δλ	Spectral Bandwidth @ 50% (FWHM)	I _f = 20 mA		65		nm
C _t	Terminal Capacitance	V _r = 0V, f = 1MHz		18		pF
t _r	Rise Time	I _f = 20 mA		0.75		μs
t _f	Fall Time	I _f = 20 mA		0.40		μs

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