

### FEATURES

- High output power
- High reliability
- Narrow emission angle

### DESCRIPTION

The **PDI-E802** 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

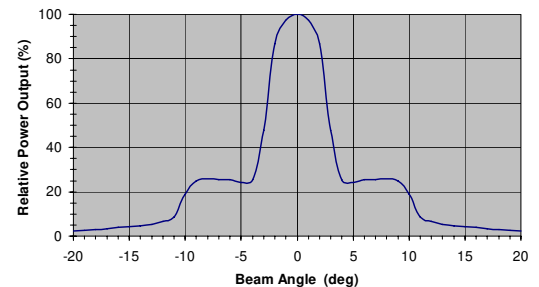


### ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

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



### 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	4.2	5		mW
$V_f$	Forward Voltage	$I_f = 100$ mA		1.5	1.9	V
$V_r$	Reverse Breakdown Voltage	$I_f = 10$ $\mu$ A	5	30		V
$\lambda_p$	Peak Wavelength	$I_f = 20$ mA	865	880	895	nm
$\Delta\lambda$	Spectral Bandwidth @ 50% (FWHM)	$I_f = 20$ mA		65		nm
$C_t$	Terminal Capacitance	$V_r = 0$ V, $f = 1$ MHz		15		pF
$t_r$	Rise Time	$I_f = 20$ mA		0.75		$\mu$ S
$t_f$	Fall Time	$I_f = 20$ mA		0.40		$\mu$ S

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