

FEATURES

- High output power
- High reliability
- Narrow emission angle

DESCRIPTION

The **PDI-E805** is an 880 nm high power GaAlAs infrared emitter packaged in a TO-46 metal header with a clear plastic lens cap.

APPLICATIONS

- Photoelectric switches
- Infrared sources
- Optical readers

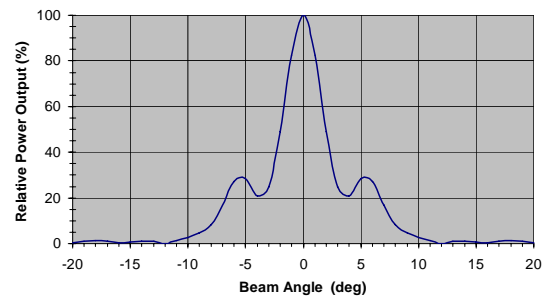


ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

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	-20	+90	°C
T_O	Operating Temperature	-20	+90	°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	8.5	10		mW
V_f	Forward Voltage	$I_f = 100$ mA		1.5	1.9	V
V_r	Reverse Breakdown Voltage	$I_f = 10$ μ A	5	30		V
λ_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		μ S
t_f	Fall Time	$I_f = 20$ mA		0.40		μ S

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