

### FEATURES

- High speed
- High reliability
- Point source emission

### DESCRIPTION

The **PDI-E825** is a high power 850 nm GaAlAs point source infrared emitter packaged in a TO-46 metal header with a clear plastic lens cap.

### APPLICATIONS

- Fiber optic source
- Infrared sources
- Optical readers

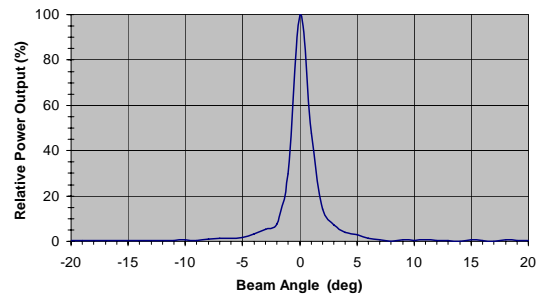


### ABSOLUTE MAXIMUM RATING (TA) = 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
$P_d$	Power Dissipation		200	mW
$I_f$	Continuous Forward Current		100	mA
$I_p$	Peak Forward Current		2.5	A
$V_r$	Reverse Voltage		2	V
$T_{STG}$	Storage Temperature	-55	+125	°C
$T_O$	Operating Temperature	-55	+125	°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	2.2	2.7		mW
$V_f$	Forward Voltage	$I_f = 100$ mA		1.7	2.2	V
$V_r$	Reverse Breakdown Voltage	$I_f = 10$ $\mu$ A	2.0			V
$\lambda_p$	Peak Wavelength	$I_f = 20$ mA	830	850	870	nm
$\Delta\lambda$	Spectral Bandwidth @ 50% (FWHM)	$I_f = 20$ mA		35		nm
$C_t$	Terminal Capacitance	$V_r = 0$ V, $f = 1$ MHz		68		pF
$t_r$	Rise Time	$I_f = 20$ mA		15		nS
$t_f$	Fall Time	$I_f = 20$ mA		15		nS

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