



DESCRIPTION

The **PDI-E813** is a high power GaAlAs infrared emitter, packaged in a hermetic TO-46 metal header with a dome window glass.

FEATURES

- High output power
- High reliability
- Medium emission angle

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Photoelectric switches
- Optical readers
- Infrared sources



ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	(TA)= 23°C UNLESS OTHERWISE NOTED
Power Dissipation	-	-	360	mW	-
Continuous Forward Current	-	-	180	mA	-
Peak Forward Current	-	-	3.0	A	-
Reverser Voltage	-	-	3	V	-
Storage Temperature	-55	to	+125	°C	-
Operating Temperature	-55	to	+125	°C	-
Soldering Temperature	-	-	+240	°C	-

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

OPTO-ELECTRICAL PARAMETERS

$T_a = 23^\circ\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Output Power	$I_f = 100 \text{ mA}$	7.0	15	-	mW
Forward Voltage	$I_f = 100 \text{ mA}$	-	1.5	1.9	V
Reverse Current	$V_R = -3\text{V}$	-	-	10	μA
Peak Wavelength	$I_f = 50 \text{ mA}$	865	880	895	nm
Spectral Halfwidth	$I_f = 50 \text{ mA}$	-	80	-	nm
Dynamic Resistance	$I_f = 100 \text{ mA}$	-	1.2	-	Ohms
Rise Time	$I_f = 20 \text{ mA}$	-	0.6	-	μs
Fall Time	$I_f = 20 \text{ mA}$	-	0.5	-	μs