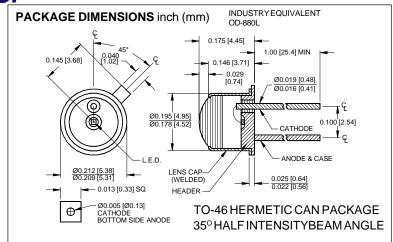
PHOTONIC DETECTORS INC.

High-Power GaAIAs Infrared Emitters Peak Wavelength, 880 nm, Type PDI-E807





FEATURES

- High output power
- High reliablity
- Medium emission angle

DESCRIPTION: The **PDI-E807** infrared emitting diode uses high reliability liquid phase epitaxially

grown GaAlAS. Optimized for high power, high efficiency. This 880 nm I.R. emitter is packaged in

a TO-46 can with a glass lens cap.

APPLICATIONS

Infrared sources

Photoelectric switches

Automatic controls TYPICAL RADIATION PATTERN

BEAM ANGLE, θ (deg)

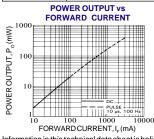
ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

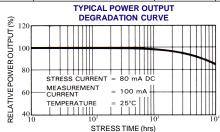
SYMBOL	PARAMETER	MIN	MAX	UNITS	
Pd	Power Dissipation		160	mW	
I _{FP}	Continuous Forward Current		100	mA	
I _{FP}	Peak Forward Current (10μs, 10Hz)		3.0	Α	
V _R	Reverse voltage		5	V	
To & Ts	Storage & Operating Temperature	-55	+100	°C	
TS	Soldering Temperature*		+240	℃	

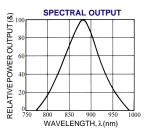
RELATIVE POWER OUTPUT (%) *1/16 inch from case for 3 secs max

ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Po	Output Power	I _F = 100 mA	18	24		mW/Sr
VF	Forward Voltage	I _F = 100 mA		1.6	2.0	V
VR	Reverse Breakdown Voltage	IF = 100 μA	5	30		V
λР	Peak Wavelength	$I_F = 50 \text{ mA}$	883	880	886	nm
$\triangle \lambda$	Spectral Halfwidth	$I_F = 50 \text{ mA}$		70		nm
Ct	Terminal Capacitance	$V_R = 0 V, f = 1 MHz$		20		pF
tr	Rise Time	I _F = 100 mA		1.5		μS
tf	FallTime	I _F = 50 mA		0.8		μS







Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. Optical power and radiant intensity measured using uncapped dimpled TO-46 into integrating sphere. [FORM NO. 100-PDI-E807 REV A]