

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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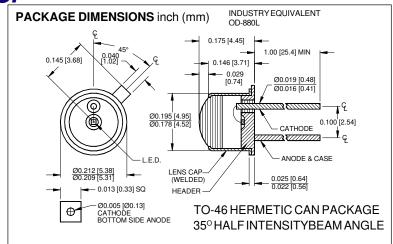




### PHOTONIC DETECTORS INC.

# High-Power GaAlAs 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 GaAIAS. Optimized for high power, high

efficiency. This 880 nm I.R. emitter is packaged in a TO-46 can with a glass lens cap.

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

	ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)									
	SYMBOL	PARAMETER	MIN	MAX	UNITS					
	Pd	Power Dissipation		160	mW					
	l <sub>EP</sub>	Continuous Forward Current		100	mA					
	l <sub>EP</sub>	Peak Forward Current (10µs, 10Hz)		3.0	Α					
	$V_{_{\mathrm{R}}}$	Reverse voltage		5	V					
To & Ts Storage &		Storage & Operating Temperature	-55	+100	∞					
	TS	Soldering Temperature*		+240	∞					

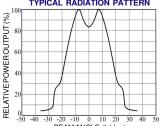
<sup>\*1/16</sup> inch from case for 3 secs max

## Automatic controls TYPICAL RADIATION PATTERN

Infrared sources

Photoelectric switches

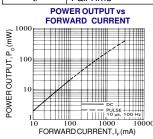
**APPLICATIONS** 

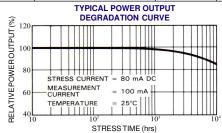


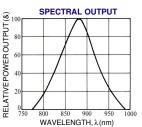
BEAMANGLE, θ (deg)

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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Po	Output Power	I <sub>F</sub> = 100 mA	18	24		mW/Sr
VF	Forward Voltage	I <sub>F</sub> = 100 mA		1.6	2.0	V
<b>V</b> R	Reverse Breakdown Voltage	IF = 100 μA	5	30		V
λР	Peak Wavelength	I <sub>F</sub> = 50 mA	883	880	886	nm
Δλ	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 <sub>F</sub> = 100 mA		1.5		μS
tf	FallTime	I <sub>F</sub> = 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]