



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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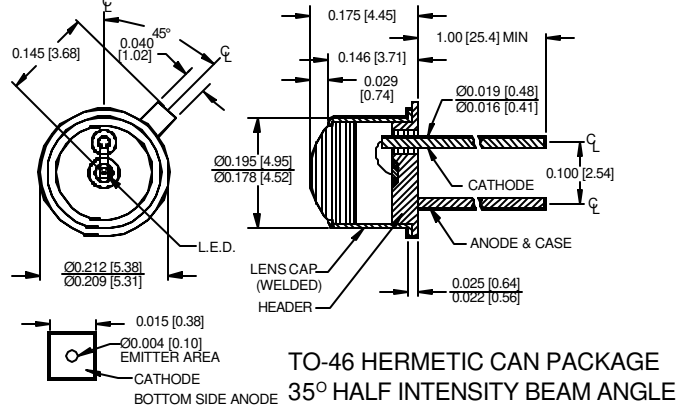


# PHOTONIC DETECTORS INC.

## High-Speed GaAlAs Infrared Point Source Emitter Peak Wavelength 850 nm, Type PDI-E827



### PACKAGE DIMENSIONS inch (mm)



### FEATURES

- High speed
- High reliability
- Medium emission angle

**DESCRIPTION:** The PDI-E827 is a GaAlAs, 850 nm, high speed point source emitter. The emitting junction is .004 inch (0.10 mm) diameter. The topside metal cathode forms an optical aperture mask. Packaged in a TO-46 header with a glass lens cap.

### APPLICATIONS

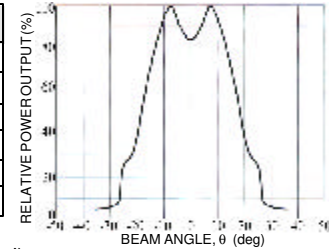
- Fiber optic sources
- Optical encoders
- Point light sources

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
Pd	Power Dissipation		200	mW
I <sub>FP</sub>	Continuous Forward Current		100	mA
I <sub>FP</sub>	Peak Forward Current (10μs, 10Hz)		2.5	A
V <sub>R</sub>	Reverse voltage		2	V
To & Ts	Storage & Operating Temperature	-55	+125	°C
TS	Soldering Temperature*		+260	°C

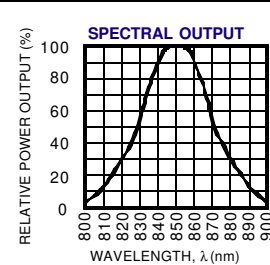
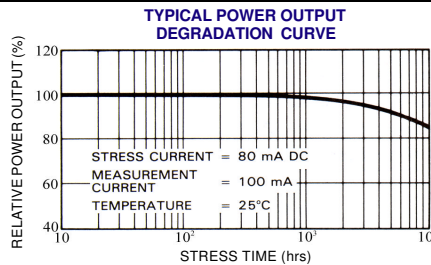
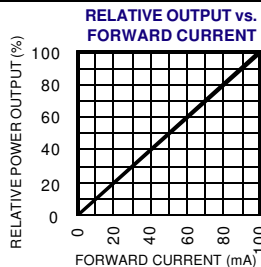
\*1/16 inch from case for 3 secs max

### TYPICAL RADIATION PATTERN



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>0</sub>	Output Power	I <sub>F</sub> = 100 mA	2.5			mW
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 100 mA		1.70	2.2	V
V <sub>R</sub>	Reverse Breakdown Voltage	I <sub>F</sub> = 10 μA	2.0			V
λ <sub>P</sub>	Peak Wavelength	I <sub>F</sub> = 20 mA	830	850	870	nm
Δλ	Spectral Halfwidth	I <sub>F</sub> = 20 mA		30		nm
C <sub>t</sub>	Terminal Capacitance	V <sub>R</sub> = 0 V, f = 1 MHz		60		pF
t <sub>r</sub>	Rise Time	I <sub>F</sub> = 20 mA		15		nS
t <sub>f</sub>	Fall Time	I <sub>F</sub> = 20 mA		15		nS



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.