



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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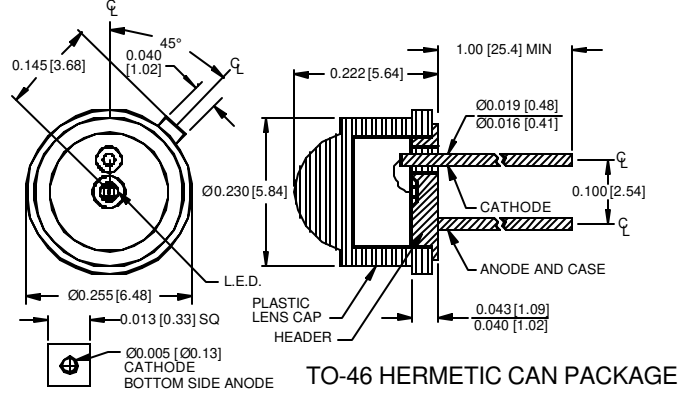


# PHOTONIC DETECTORS INC.

## High-Power GaAs Infrared Emitters Peak Wavelength 940 nm, Type PDI-E905



### PACKAGE DIMENSIONS inch (mm)



### FEATURES

- High output power
- High reliability
- Collimated high emission angle

**DESCRIPTION:** The **PDI-E905** infrared emitting diode uses high reliability liquid phase epitaxially grown GaAs. Optimized for high power, high efficiency. This 940 nm emitter is packaged in a TO-46 header with a clear plastic lens cap.

### APPLICATIONS

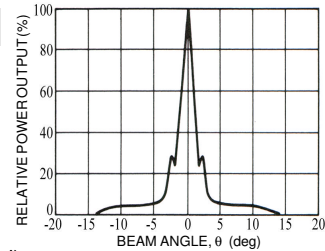
- Photo interrupters
- I.R. remotes
- Infrared sources

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
Pd	Power Dissipation		160	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		5	V
To & Ts	Storage & Operating Temperature	-65	+125	°C
TS	Soldering Temperature*		+260	°C

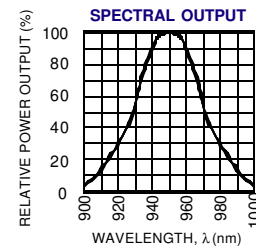
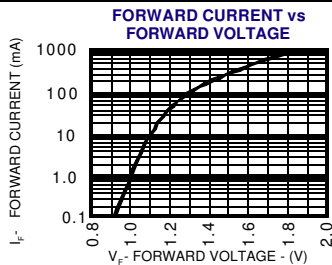
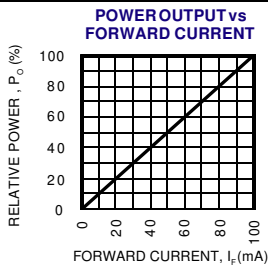
\*1/16 inch from case for 3 secs max

### TYPICAL RADIATION PATTERN



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>o</sub>	Output Power	I <sub>F</sub> = 20 mA	1	1.2		mW
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 100 mA		1.30	1.50	V
V <sub>R</sub>	Reverse Breakdown Voltage	I <sub>F</sub> = 10 μA	5			V
λ <sub>p</sub>	Peak Wavelength	I <sub>F</sub> = 100 mA	920	940	960	nm
Δλ	Spectral Halfwidth	I <sub>F</sub> = 100 mA		50		nm
C <sub>t</sub>	Terminal Capacitance	V <sub>R</sub> = 0 V, f = 1 MHz		30		pF
t <sub>r</sub>	Rise Time	I <sub>F</sub> = 100 mA		0.8		μS
t <sub>f</sub>	Fall Time	I <sub>F</sub> = 100 mA		0.8		mS



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.