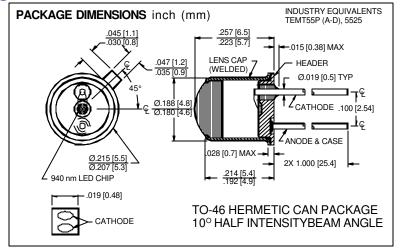
# **PHOTONIC** DETECTORS INC.

## **High-Power & Current GaAs Infrared Emitters** Peak Wavelength, 940 nm, Type PDI-E913





#### **FEATURES**

- Dual cathode
- High current
- Medium-high emission angle

### **DESCRIPTION:** The **PDI-E913** infrared emitting **APPLICATIONS**

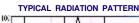
diode uses dual cathode, high current liquid phase epitaxially grown GaAs. Optimized for high ... power, and high current at 940 nm. Packaged in a

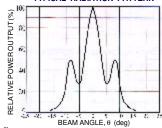
- Photoelectric switches
- Reflective switches
- Smoke detectors

TO-46 can with a glass lens cap.

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

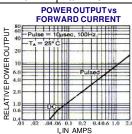
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SYMBOL	PARAMETER	MIN	MAX	UNITS				
Pd	Power Dissipation		360	mW				
l <sub>EP</sub>	Continuous Forward Current		180	mA				
 Ep	Peak Forward Current (100µs pulse,10pps	)	3.0	Α				
V <sub>R</sub>	Reverse voltage		3.0	V				
To & Ts	Storage & Operating Temperature	-65	+125	°C				
TS	Soldering Temperature*		<b>±260</b>	°C.				

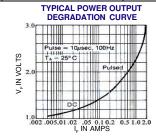


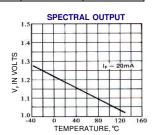


ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Po	Output Power	lf = 100 mA	1.0	5.0		mW
VF	Forward Voltage	IF = 100 mA		1.35	1.75	V
<b>I</b> R	Reverse Current	V <sub>R</sub> = -3.0 V			10	mA
λР	Peak Wavelength	$I_F = 50 \text{ mA}$	925	940	955	nm
Dλ	Spectral Halfwidth	$I_F = 50 \text{ mA}$		50		nm
Rd	Dynamic Resistance	I <sub>=</sub> = 100 mA		0.6		Ohm
tr	Rise Time	l <sub>F</sub> = 100 mA		1.1		μS
<b>t</b> f	Fall Time	IF = 100 mA		1.5		<b>m</b> S







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.