AFONICS

RX-0012

- Silicon PIN diode
- 500MHz bandwidth

Performance Highlights

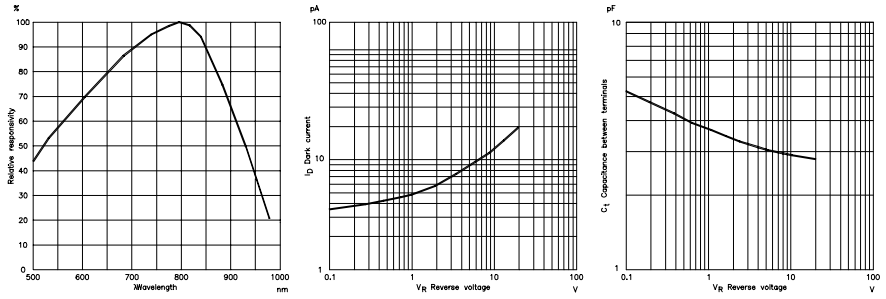
- Minimum responsivity 0.8A/W at 800nm
- Max capacitance 3pF
- Max dark current 0.05nA

LIMITING VALUES	SYMBOL	VALUE	UNITS
Continuous reverse voltage	V_R	20	V
Power dissipation	P	50	mW
Operating temperature	T_{amb}	-30 to +80	°C
Storage temperature	T_{stg}	-30 to +85	°C
Soldering temperature 2mm from case for 10s (either device)	T_{sld}	240	°C

OPTICAL/ELECTRICAL CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITION
Responsivity	R	0.8			A/W	λ = 800nm
Cutoff frequency	f_C			500	MHz	V_R = 10V
Capacitance	C_T			3	pF	V_R = 10V, f =1MHz
Dark current	I_D		10	50	pA	V_R = 10V

All values apply at a temperature of 25°C

GRAPHS SHOWING TYPICAL DETECTOR CHARACTERISTICS



Relative sensitivity vs wavelength

Dark current vs ambient or case temperature

Package capacitance vs reverse bias voltage

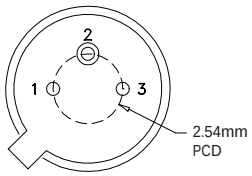
DETECTOR PINOUT DETAILS

1 = Cathode

2 = Case

3 = Anode

Pin length > 12mm



REAR VIEW

DETECTOR INTERNAL CIRCUIT

NOTES:

1) The device is very susceptible to damage by electrostatic discharge.

