AFONICS

RX-0011

- Silicon PIN diode
- 120MHz bandwidth

Performance Highlights

- Typical responsivity 0.6A/W
- Operating temperature -40°C to +100°C
- Typical dark current 0.1nA

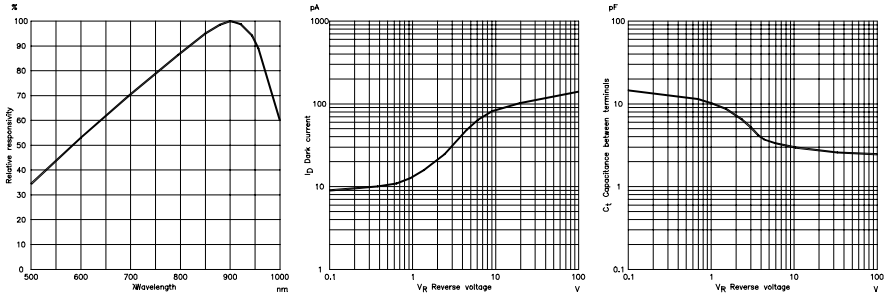
LIMITING VALUES	SYMBOL	VALUE	UNITS
Continuous reverse voltage	V_R	20	V
Operating temperature	T_{amb}	-40 to +100	°C
Storage temperature	T_{stg}	-40 to +125	°C
Soldering temperature 2mm from case for 10s (either device)	T_{sld}	260	°C

OPTICAL/ELECTRICAL CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITION
Responsivity (1)	R		0.6		A/W	λ = 900nm, V_R = 10V
Cutoff frequency	f_C		120		MHz	R_L=50Ω, V_R = 10V, λ=830nm
Peak sensitivity wavelength	λ_P		900			
Range of spectral sensitivity	$\Delta\lambda$	320		1060	nm	S = 10% of S_{max}
Active area			ϕ1.2		mm	
Capacitance	C_T		3		pF	V_R = 10V, f =1MHz
Dark current	I_D		0.1	2	nA	V_R = 10V

All values apply at a temperature of 25°C

(1) Responsivity data applies when used with fibres up to 62.5μm core diameter

GRAPHS SHOWING TYPICAL CHARACTERISTICS



Relative sensitivity vs wavelength

Dark current vs ambient or case temperature

Package capacitance vs reverse bias voltage

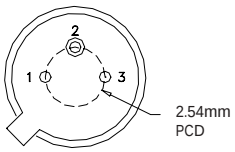
PINOUT DETAILS

1 = Cathode

2 = Case

3 = Anode

Pin length > 12mm



REAR VIEW

INTERNAL CIRCUIT

NOTES:

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

