AFONICS

RX-0010

- Low cost Si PIN Diode
- 50MHz bandwidth

Performance Highlights

- Responsivity typically 0.55A/W
- Typical dark current 0.1nA

LIMITING VALUES	SYMBOL	VALUE	UNITS
Continuous reverse voltage	V_R	30	V
Total power dissipation	P_D	100	mW
Operating temperature (1)	T_{amb}	-25 to +100	°C
Storage temperature (1)	T_{stg}	-30 to +125	°C
Soldering temperature 2mm from case for 10s	T_{sld}	300	°C

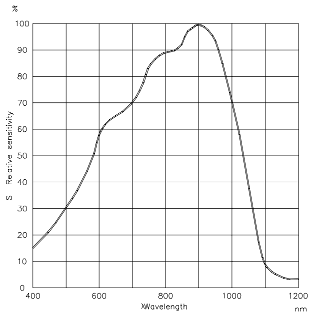
OPTICAL/ELECTRICAL CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITION
Responsivity (2)	R	0.50	0.55		A/W	λ = 850nm, V_R = 10V
Rise and fall time (10% - 90%)	t_r, t_f		5		ns	V_R = 10V, R_L=50Ω, λ=880nm, I_P=7μA
Bandwidth	f_c		50		MHz	V_R = 10V
Capacitance	C_T		3		pF	V_R = 10V, f =1MHz
Dark current	I_D		0.1	10	nA	V_R = 10V

All values apply at a temperature of 25°C

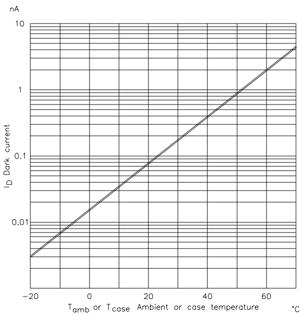
(1) Applies to active device only. Receptacled performance may differ depending on the method of construction applicable to each part.

(2) Applies to fibres with core diameter less than 63μm

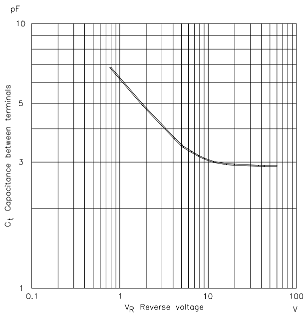
GRAPHS SHOWING TYPICAL CHARACTERISTICS



Relative sensitivity
vs wavelength



Dark current
vs ambient or case temperature



Package capacitance vs
reverse bias voltage

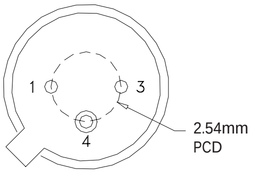
PINOUT DETAILS

1 = Anode

3= Cathode

4 = Case

Pin length = 12mm



REAR VIEW

INTERNAL CIRCUIT

NOTES:

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