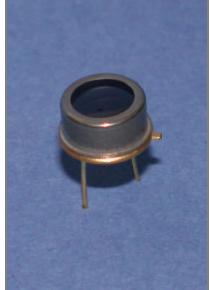
PHOTONIC **DETECTORS INC**

Silicon Photodiode, Near I.R. Photoconductive Type PDI-C106-F



PACKAGE DIMENSIONS INCH [mm] WINDOW CAP Ø0.325 [8.25] (WELDED) -0.030 [0.76] 0.168 [4.26] Ø0.250 [6.35] 0.075 [1.91] WIRE 0 500 BONDS [12.70] MIN . **-**¢ VIEWING Ø0.358 0.200 [5.08] [9.09] ANGLE 0.035 1Ç ANODE Ø0.018 [0.46] I.R. PASS FILTER CATHODE HEADER PHOTODIODE Ø0.018 [0.46] 0.154 [3.91] SQ Ø0.1404 [Ø3.567 ACTIVE AREA **TO-5 HERMETIC CAN PACKAGE** ACTIVE AREA = 10.00mm²

FEATURES

- High speed
- Match to I.R. emitters
- Hermetic package •

The PDI-C106-F is a silicon, PIN planar • I.R. pass visible rejection diffused photodiode with NIR pass, visible light rejection optical filter. Ideal for high speed, low capacitance, photoconductive NIR applications. Packaged in a hermetic TO-5 metal can with a flat window cap.

APPLICATIONS

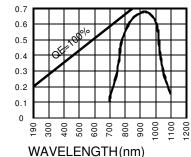
- I.R. detector
- I.R. laser detector
- Photo-interrupters
- Industrial controls

ARSOLUTE MAXIMUM RATING (TA-25°C unless otherwise noted)

DESCRIPTION

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)							
SYMBOL	PARAMETER	MIN	MAX	UNITS			
VBR	Reverse Voltage		100	V			
T _{STG}	Storage Temperature	-55	+100	с			
То	Operating Temperature Range	-40	+80	с			
Ts	Soldering Temperature*		+240	Ŷ			
Ι _L	Light Current		500	mA			

SPECTRALRESPONSE



1/16 inch from case for 3 secs max

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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
lsc	Short Circuit Current	H = 100 fc, 2850 K	90	117		μA
ΙD	Dark Current	$H = 0, V_{R} = 10 V$		2	10	nA
Rsh	Shunt Resistance	$H = 0, V_{R} = 10 \text{ mV}$	200	650		MΩ
TC Rsh	RSH Temp. Coefficient	$H = 0, V_{R} = 10 \text{ mV}$		-8		% / °C
CJ	Junction Capacitance	$H = 0, V_{R} = 10 V^{**}$		70		pF
λrange	Spectral Application Range	Spot Scan	700		1100	nm
λρ	Spectral Response - Peak	Spot Scan		950		nm
VBR	Breakdown Voltage	I = 10 µµA	75	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		3x10 ⁻¹⁴		W/ / Hz
tr	Response Time	$RL = 1 K\Omega V_R = 50 V$		18		nS

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.**f=1 MHz [FORM NO. 100-PDI-C106-F REV A]