InGaAs Photodetector Module (TO-5 8 pins)

Cooler

Features

- Active area size of 1mm
- High QE for 1064nm
- Built-in TEC, Thermistor

Application

- Optical Instrumentation
- NIR Sensing
- Laser Power Measurement
- Power meters



1 Thermoelectric Submount

Symbol	Characteristic	Min.	Typ.	Max.	Unit
Dtmax	Maximum temperature difference @ I=Imax		40	78	K
Qmax	Maximum heat pumping capacity @ I=Imax			1.7	W
Imax	Maximum current			1.2	A
Umax	Maximum voltage drop			2.35	V

2 Absolute Maximum Ratings (Tc=25℃)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Application Range	λ	1000	-	1680	nm	-
Spectral Response-Peak	λ_p		1600		nm	-
Forward Current	I_F		10		mA	-
Reverse Current	I_R		10		mA	-
Dark Current	I_D		10		pA	V_R= 0V
			32			V_R= 5V
Rise time	T_R		3	5	ns	V_R= 5V,R_L=50Ω, f=1MHz
Forward Voltage	V_F			0.6	V	I_F= 1mA
Reverse Breakdown Voltage	$V_{(BR)R}$	40			V	I_R=10μA Ev=0lx
Junction Capacitance	C_J		14		pF	V_R= 0V,f=1MHz
			2.67		pF	V_R= 5V,f=1MHz
Shunt Resistance	Rsh		75		mΩ	V_R= 10mV
Sensitivity	Res		0.97		A / W	λ=1310nm
			1.10			λ=1550nm
Saturation Power	L	1	1.6		mW	V_R= 0V,λ=1550nm
		2	5.3			V_R= 2V,λ=1550nm
		6	12.1			V_R= 5V,λ=1550nm
Angular Resp 50% Resp Pt	$\theta_{1/2}$			±55	Degress	
Noise Equivalent Power	NEP			$8.16x10^{-13}$	$W/H_Z^{1/2}$	V_R= 5V,λ=1550nm
Specific Detectivity	D*			$2.17x10^{12}$	$cm(Hz/W)^{1/2}$	V_R= 5V,λ=1550nm

*** Please note the depending on operation voltage, the operation at temperatures below -15℃ may require sophisticated control circuit.**

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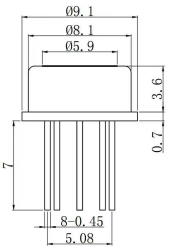
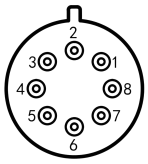
3 Dimensions(mm)



Pin Assignment

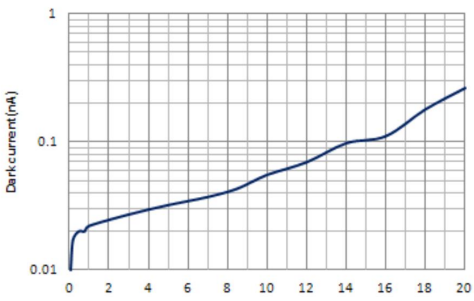


1. Thermistor
2. PD+
3. TEC+
4. TEC−
5. PD−
6. Thermistor
7. NC
8. NC

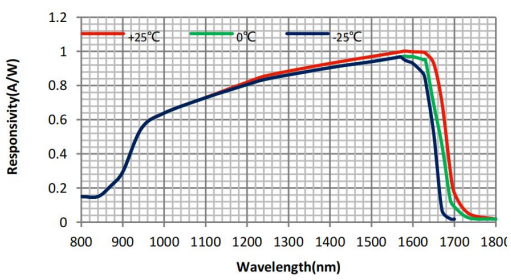
Customize for you



■Dark current vs. reverse voltage



■ Spectral response



4 Order Information

InGaAs Photodetector Cooler Module

Please let us know
1: Active diameter
2: connector
3: others (If you have many more request)

For example

Part Number	Description
GTA207E	φ1000, cooler PD, TO-CAN
customize for you .	