



InGaAs APD Module (Coaxial coupling)

Features

- Low Capacitance, Low Return Loss
- Built-in Thermistor
- Small Dark Current
- High Speed
- High Responsivity InGaAs APD

Application

- OTDR
- Monitoring and Meter
- Optical Instruments
- Sonet OC-48 / SDH STM -16 Application

Absolute Maximum Ratings (Tc=25°C .unless otherwise specified)

Parameter	Symbol	Min.	Max.	Unit	Test Condition
Reverse Voltage	V _r	--	V _{br}	V	-
Thermoelectric Cooler Voltage	V _{TEC}	--	2.6	V	-
Thermoelectric Cooler Current	I _{TEC}	--	1.5	A	-
Operating Temperature	T _{OP}	-40	+85	°C	-
Storage Temperature	T _{stg}	-40	+85	°C	-
Soldering Temperature/Time	-	260/10		°C/S	-

Specifications (electrical & optical characteristics) T= 25°C

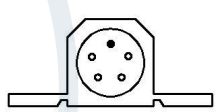
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Wavelength Range	λ	1000	-	1650	nm	-
Temperature Coefficient of Reverse Breakdown Voltage	δ		0.2		% / °C	*1
Voltage	V_{BR}	50	-	100	V	$I_D=10\mu A$
Dark Current	I_d	-	0.3	1	nA	$V_R=V_{BR}-1V$
Responsivity	R	0.85 @ 1310nm			A / W	M=1
		0.90 @ 1550nm				
		0.88 @ 1650nm				
Capacitance	C_t	-	0.35	-	pF	$f = 1\text{ MHz}, V_R=V_{BR}-1V$
Multiplied Dark Current	I_{dm}		1	5	nA	M=2 to 10
Cut-off Frequency	F_c	2.5	-	-	GHz	M=10
Optical Return Loss	ORL	30	-	-	dB	SMF

Multiplication Factor	M	60	70		M	$\lambda = 1310\text{nm}$, $I_{po} = 1.0 \mu\text{A}$, $V_r = V$ (@ $I_d = 1 \mu\text{A}$)
Excess Noise Factor	X		0.7			$\lambda = 1310\text{nm}, 1550\text{nm}$, $I_{po} = 1.0 \mu\text{A}$, $M = 10, f = 35\text{MHz}, B = 1\text{MHz}$
	F		5			
Thermistor B-Value		-	3970	-	K	25 °C / 85 °C

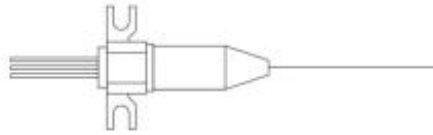
*1

$$\delta = \frac{V_{BR}(25^\circ\text{C} + \Delta T^\circ\text{C}) - V_{BR}(25^\circ\text{C})}{\Delta T^\circ\text{C} \cdot V_{BR}(25^\circ\text{C})}$$

Dimensions(nm)

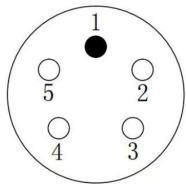


with flange



without flange

Pin Assignment



Pin	Function
1	Case
2	Thermistor
3	PD+
4	PD-
5	Thermistor

Order Information

Part No.	Description
GTA5050	InGaAs APD module ,with flange
GTA505N	InGaAs APD module ,without flange
GTA5059	InGaAs APD module ,with flange, SMF FC/APC
GTA505N9	InGaAs APD module ,without flange,SMF FC/APC
GTA5058	InGaAs APD module ,with flange, SMF FC/UPC
GTA505N8	InGaAs APD module ,without flange,SMF FC/UPC



Please let us know your request details before order.



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