FCI-InGaAs-XX-XX-XX

High Speed InGaAs Photodiodes w/Pigtail Packages

The FCI-InGaAs-XX-XX-XX with active area of 75um and 120um are part of OSI Optoelectronics's family of high speed IR sensitive detectors with fiber pigtail package. The single/multi-mode fiber is optically aligned to the hermetically sealed InGaAs diode in TO-46 lens cap package enhancing the coupling efficiency and stability. High responsivity and low capacitance make these devices ideal for very high-bit rate receivers used in LAN, MAN, WAN and other high speed communication and monitoring/instrumentation systems. Angle polished connectors and custom packages are also available.

For a solution involving FC connector and TO-46 attachment, user(s) may consider either FCI-InGaAs-75-SM-FC or FCI-InGaAs-120-SM-FC in single-mode operation.

Similarly, the multi-mode variant is available in FCI-InGaAs-120-MM-FC using 62.5/125 fiber. The back-reflection of -30dB typical is to be experienced in multi-mode based solution.





APPLICATIONS

- High Speed Optical Communications
- Gigabit Ethernet/Fibre Channel
- SONET/SDH, ATM
- Optical Power Monitoring / Instrumentation

FEATURES

- High Speed
- High Responsivity
- Spectral Range 900nm to 1700nm
- Low Back Reflection

Absolute Maximum Ratings

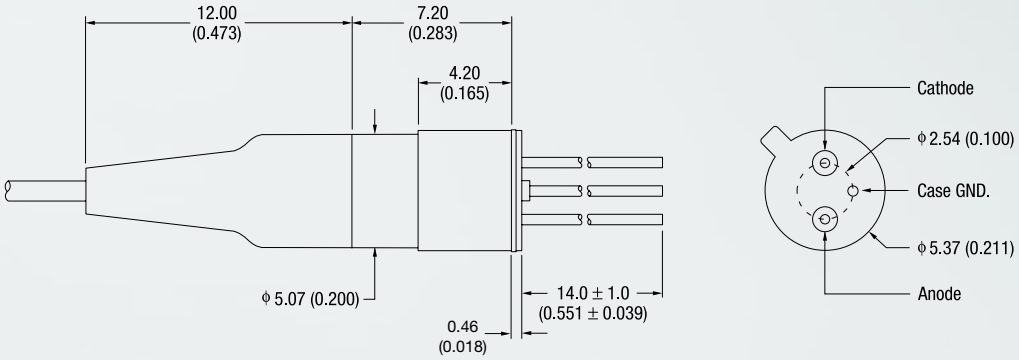
PARAMETERS	SYMBOL	MIN	MAX	UNITS
Storage Temperature	T_{stg}	-20	+90	°C
Operating Temperature	T_{op}	0	+75	°C

Electro-Optical Characteristics T_A=23°C

PARAMETERS	SYMBOL	CONDITIONS	FCI-InGaAs-75-XX-XX			FCI-InGaAs-120-XX-XX			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
Active Area Diameter	AA_ϕ	---	---	75	---	---	120	---	μm
Responsivity	R_λ	λ=1310nm	0.75	0.85	---	0.80	0.90	---	A/W
		λ=1550nm	0.80	0.90	---	0.85	0.95	---	
Back-Reflection*	R_L	---	---	-40	-35	---	-40	-35	dB
Capacitance	C_j	V_R = 5.0V	---	0.65	---	---	1.0	---	pF
Dark Current	I_d	V_R = 5.0V	---	0.03	2	---	0.05	2	nA
Rise Time/ Fall Time	t_r/t_f	V_R = 5.0V, R_L=50Ω 10% to 90%	---	---	0.2	---	---	0.3	ns
Max. Reverse Voltage	---	---	---	---	20	---	---	20	V
Max. Reverse Current	---	---	---	---	1	---	---	2	mA
Max. Forward Current	---	---	---	---	5	---	---	5	mA
NEP	---	---	---	3.44E-15	---	---	4.50E-15	---	W/√Hz

*Single Mode Fiber (SMF) only

FCI-InGaAs-75-XX-XX and FCI-InGaAs-120-XX-XX



All pigtail packages are available in: SM-(FC, SC or ST)
MM-(FC, SC or ST)

Notes:
- All units in millimeters (inches).
- All tolerances are 0.125 (0.005)