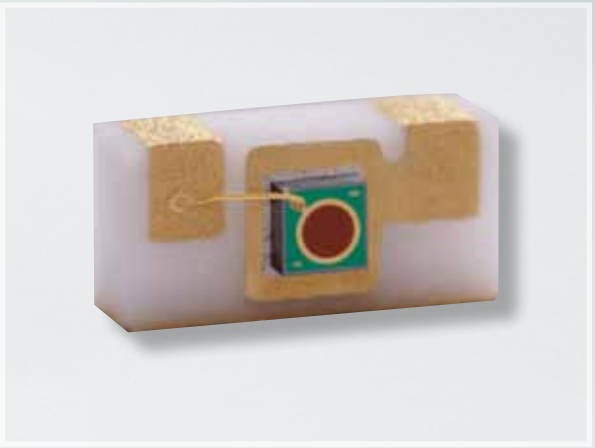
FCI-InGaAs-XXX-ACER

High Speed InGaAs Photodiodes Mounted on Wedge Ceramic Packages

FCI-InGaAs-XXX-ACER with active area sizes of 75µm, 120µm, 300µm, 400µm and 500µm is part of OSI Optoelectronics's high speed IR sensitive photodiodes mounted on angled ceramic substrates. The ceramic substrate with an angled surface by 5° greatly reduces the back reflection. The chips can be epoxy/eutectic mounted onto the angled ceramic substrate.

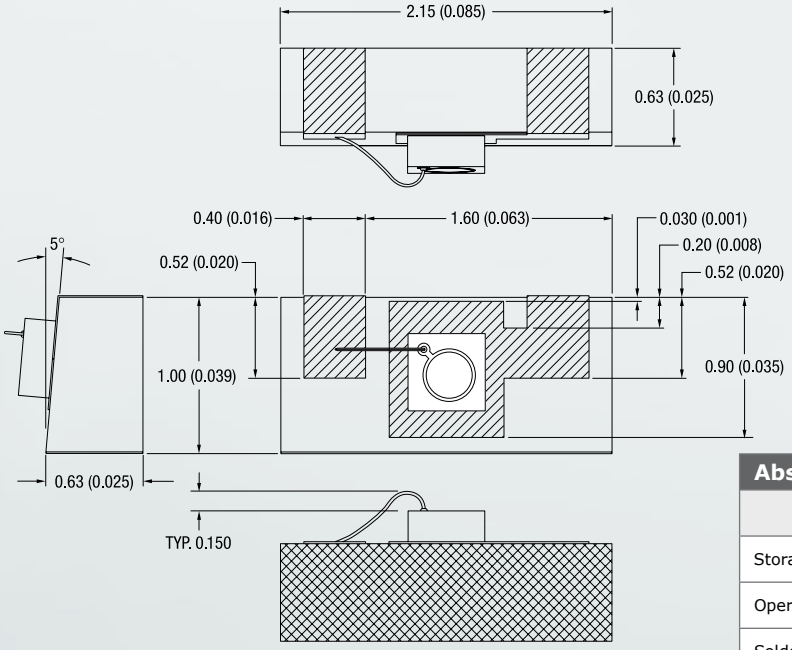


APPLICATIONS

- High Speed Optical Communications
- Gigabit Ethernet/Fibre Channel
- SONET / SDH, ATM
- Diode Laser Monitor
- Instrumentation

FEATURES

- 5° Angle Ceramic
- Low Noise
- High Responsivity
- High Speed
- Spectral Range
  900nm to 1700nm



Notes:

- All units in millimeters (inches).
- All devices are eutectic mounted with tolerance of ±50µm.

Absolute Maximum Ratings

PARAMETERS	SYMBOL	MIN	MAX	UNITS
Storage Temperature	T_{stg}	-40	+85	°C
Operating Temperature	T_{op}	0	+70	°C
Soldering Temperature	T_{sld}	---	+260	°C

Electro-Optical Characteristics T_A=23°C

PARAMETERS	SYMBOL	CONDITIONS	FCI-InGaAs-75ACER			FCI-InGaAs-120ACER			FCI-InGaAs-300ACER			FCI-InGaAs-400ACER			FCI-InGaAs-500ACER			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Active Area Diameter	AA_ϕ	---	---	75	---	---	120	---	---	300	---	---	400	---	---	500	---	µm
Responsivity	R_λ	λ=1310nm	0.80	0.90	---	0.80	0.90	---	0.80	0.90	---	0.80	0.90	---	0.80	0.90	---	µm
		λ=1550nm	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	A/W
Capacitance	C_j	V_R = 5.0V	---	0.65	---	---	1.0	---	---	10.0	---	---	14.0	---	---	20.0	---	pF
Dark Current	I_d	V_R = 5.0V	---	0.03	2	---	0.05	2	---	0.30	5	---	0.40	5	---	0.50	20	nA
Rise Time/ Fall Time	t_r/t_f	V_R = 5.0V, R_L=50Ω 10% to 90%	---	---	0.20	---	---	0.30	---	---	1.5	---	---	3.0	---	---	10.0	ns
Max. Reverse Voltage	---	---	---	---	20	---	---	20	---	---	15	---	---	15	---	---	15	V
Max. Reverse Current	---	---	---	---	1	---	---	2	---	---	2	---	---	2	---	---	2	mA
Max. Forward Current	---	---	---	---	5	---	---	5	---	---	8	---	---	8	---	---	8	mA
NEP	---	---	---	3.44E-15	---	---	4.50E-15	---	---	6.28E-15	---	---	7.69E-15	---	---	8.42E-15	---	W/√Hz