# 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

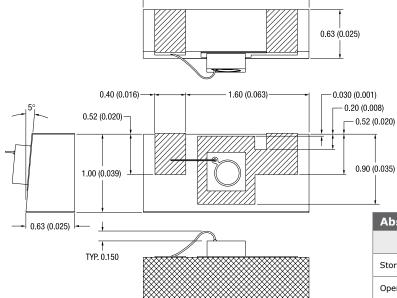
- High Speed Optical Communications
- Gigabit Ethernet/Fibre Channel
- SONET / SDH, ATM
- Diode Laser Monitor
- Instrumentation

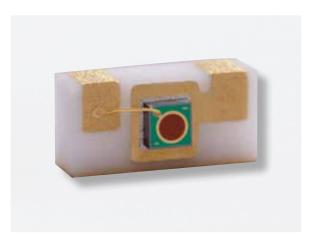
#### **FEATURES**

- 5° Angle Ceramic
- Low Noise
- High ResponsivityHigh Speed
- Spectral Range

2.15 (0.085)

900nm to 1700nm





#### Notes:

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



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Absolute Maximum Ratings										
PARAMETERS	SYMBOL	MIN	МАХ	UNITS						
Storage Temperature	T <sub>stg</sub>	-40	+85	°C						
Operating Temperature	T <sub>op</sub>	0	+70	°C						
Soldering Temperature	T <sub>sld</sub>		+260	°C						

		naracteristi conditions		GaAs-7	5ACED	FCI-InGaAs-120ACER FCI-InGaAs-300ACER			ECI-In	GaAs-40	OACEP	T <sub>A</sub> =:						
PARAMETERS	SYMBOL		MIN	TYP	MAX	MIN		MAX	MIN		MAX	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Active Area Diameter	AA <sub>φ</sub>			75			120			300			400			500		μm
Responsivity	R <sub>λ</sub>	λ=1310nm	0.80	0.90		0.80	0.90		0.80	0.90		0.80	0.90		0.80	0.90		
		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	Cj	V <sub>R</sub> = 5.0V		0.65			1.0			10.0			14.0			20.0		pF
Dark Current	I <sub>d</sub>	V <sub>R</sub> = 5.0V		0.03	2		0.05	2		0.30	5		0.40	5		0.50	20	nA
Rise Time/ Fall Time	t <sub>r</sub> /t <sub>f</sub>	$V_{R} = 5.0V,$ $R_{L} = 50\Omega$ 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