FCI-InGaAs-25C

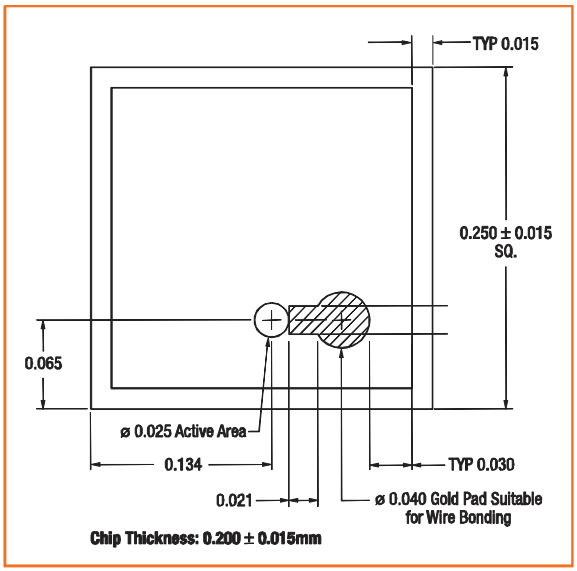
10Gbps InGaAs Photodiode

APPLICATIONS

- High Speed Optical Communications
- OC-192
- Optical Networking
- Optical Measurement

FEATURES

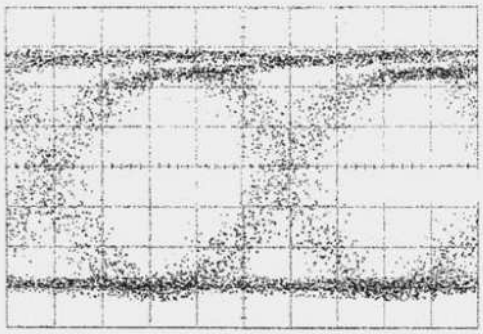
- High Speed, 10 Gbps Data Rates
- low Dark Current
- Front Illuminated
- High Responsivity, Typ. 0.95A/W @1550nm
- Diameter of Light Sensitive area 25µm
- Low Capacitance



DESCRIPTION

OSI Fibercomm's FCI-InGaAs-25C is an InGaAs/InP, high speed photodiode chip in a planar structure, exhibiting very low dark current in the order of 100pA at operating reverse bias of 5V. It has a wirebondable anode pad on the front side and an epoxy/eutectic bondable cathode pad on the back side. The photodiode can be used for high speed optical receivers in the wavelength range of 1100nm to 1620nm for 10Gbps data rate applications. It can also be used for picosecond optical time measuring instruments.

Typical Eye Diagram (10Gbps)(1)



Scale: Vertical 100mV/div
Horizontal 20.0 ps/div

Electro-Optical Characteristics T_A=23°C

PARAMETERS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Sensing Area Diameter	AA_ϕ	---	---	25	---	µm
Chip Size	---	---	---	250 x 250	---	µm x µm
Responsivity	R_λ	λ=980nm	0.55	0.60	---	A/W
		λ=1310nm	0.85	0.90	---	
		λ=1550nm	0.90	0.95	---	
Capacitance	C_j	V_R=5V	---	---	0.2	pF
Dark Current	I_d	V_R=5V	---	0.1	1	nA
Breakdown Voltage	V_b	I_R=1µA	20	---	---	V
Forward Voltage	---	I_R=1mA	---	0.8	---	V
Optical Reflectance	---	λ=1310nm	---	5	---	%
		λ=1550nm	---	2	---	%
ESD	---	---	---	500	---	V
Data Rate (1)	---	BER=10^{-10}	---	10	---	Gbps

(1) Measured with a TIA. Currently FCI-InGaAs-25C is offered in die form only.

Information in this catalog is believed to be accurate and reliable, However OSI Fibercomm assumes no responsibility for its use. OSI Fibercomm reserves the right to change specifications at anytime, in order to improve design to provide the best product possible.

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