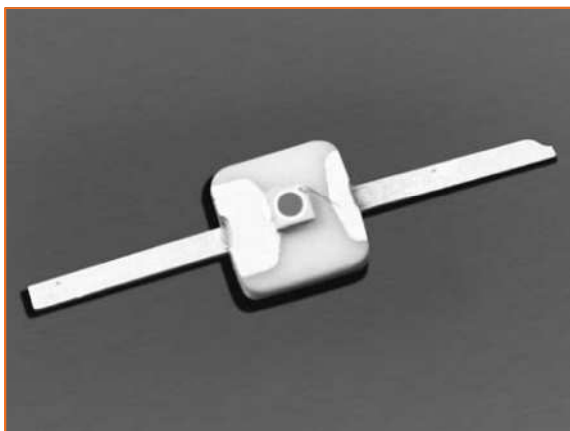


# FCI-InGaAs-XXX-LCER

High Speed InGaAs Photodiodes Mounted on Ceramic Packages w/Leads



## APPLICATIONS

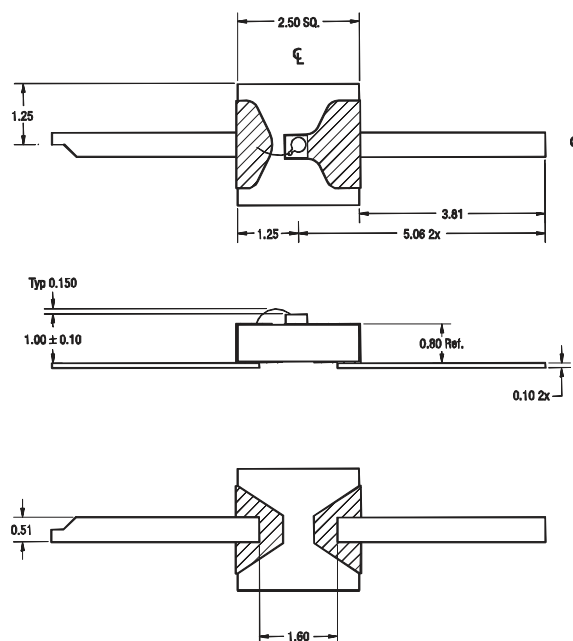
- High Speed Optical Communications
- Gigabit Ethernet/Fibre Channel
- SONET / SDH, ATM
- Diode Laser Monitoring
- Instrumentation

## FEATURES

- Low Noise
- High Responsivity
- High Speed
- Spectral Range 900nm to 1700nm

## DESCRIPTION

FCI-InGaAs-XXX-LCER with active area sizes of 70 $\mu$ m, 120 $\mu$ m, 300 $\mu$ m, 400 $\mu$ m and 500 $\mu$ m are part of OSI Fibercomm's high speed IR sensitive photodiodes mounted on gull wing ceramic substrates. The chips can be epoxy/eutectic mounted onto the ceramic substrate.



**Notes:**  
 ① All units in millimeters.  
 ② All devices are mounted with low out gassing conductive epoxy with tolerance of  $\pm 25\mu$ m. Eutectic mounting is also available upon request.

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

Electro-Optical Characteristics																	T <sub>A</sub> = 23°C	
PARAMETERS	SYMBOL	CONDITIONS	FCI-InGaAs-70LCER			FCI-InGaAs-120LCER			FCI-InGaAs-300LCER			FCI-InGaAs-400LCER			FCI-InGaAs-500LCER			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Active Area Diameter	AA <sub>φ</sub>	---	---	70	---	---	120	---	---	300	---	---	400	---	---	500	---	$\mu$ m
Responsivity	R <sub>s</sub>	$\lambda = 1310\text{nm}$	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	A/W
		$\lambda = 1550\text{nm}$	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	
Capacitance	C <sub>j</sub>	V <sub>R</sub> = 5.0V	---	0.65	---	---	1.0	---	---	4.5	---	---	12.5	---	---	18.0	---	pF
Dark Current	I <sub>d</sub>	V <sub>R</sub> = 5.0V	---	0.03	2	---	0.05	2	---	0.10	5	---	0.15	5	---	0.20	20	nA
Rise Time/ Fall Time	t <sub>r</sub> /t <sub>f</sub>	V <sub>R</sub> = 5.0V, R <sub>L</sub> = 50 $\Omega$ 10% to 90%	---	---	0.2	---	---	0.3	---	---	1.5	---	---	3.0	---	---	10.0	ns
Max. Reverse Voltage	---	---	---	---	20	---	---	20	---	---	15	---	---	15	---	---	15	V
Max. Reverse Current	---	---	---	---	1	---	---	2	---	---	5	---	---	5	---	---	5	mA
Max. Forward Current	---	---	---	---	5	---	---	5	---	---	25	---	---	35	---	---	45	mA
NEP	---	---	---	3.44E-15	---	---	4.50E-15	---	---	6.28E-15	---	---	7.69E-15	---	---	8.42E-15	---	W/ $\sqrt$ Hz

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.

[www.lasercomponents.com](http://www.lasercomponents.com)

Issue: 01/05 / V1 / HW / [www/pdf/osifiber/fci-ingaas-xxx-lcer.pdf](http://www/pdf/osifiber/fci-ingaas-xxx-lcer.pdf)

LASER COMPONENTS (UK) Ltd., Goldlay House, 114 Parkway, Chelmsford, Essex. CM2 7PR, Phone: 01245 491 499, Fax: 01245 491 801  
[info@lasercomponents.co.uk](mailto:info@lasercomponents.co.uk)

[www.DataSheet4U.com](http://www.DataSheet4U.com)