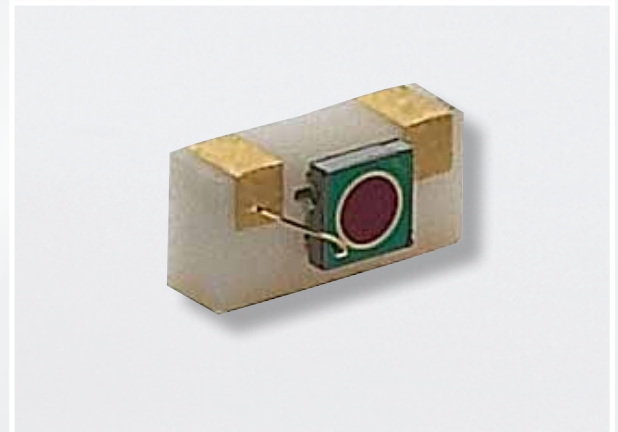


# FCI-InGaAs-XXX-WCER

## High Speed InGaAs Photodiodes Mounted on Wraparound Ceramic

FCI-InGaAs-XXX-WCER with active area sizes of 75µm, 120µm, 300µm, 400µm and 500µm are part of a line of monitor photodiodes mounted on metallized ceramic substrates. These compact assemblies are designed for ease of integration. The chips can be epoxy or eutectic mounted onto the ceramic substrate.

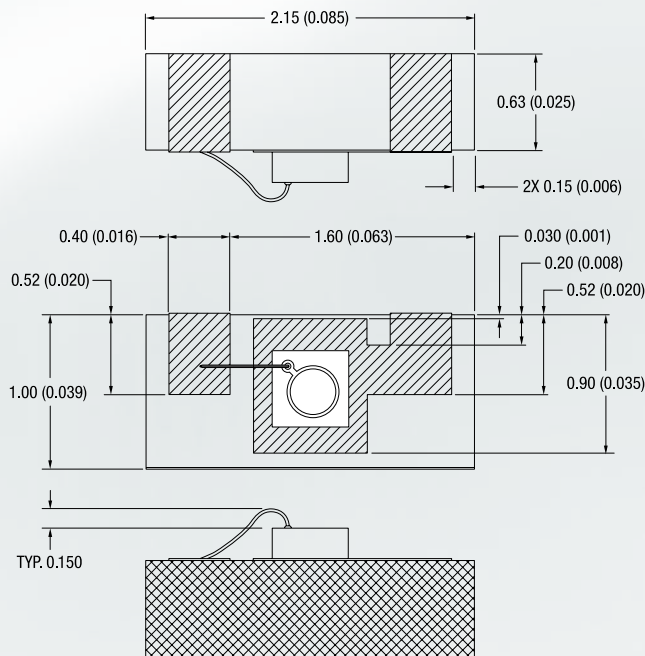


### APPLICATIONS

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

### FEATURES

- 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

$T_A = 23^\circ\text{C}$

PARAMETERS	SYMBOL	CONDITIONS	FCI-InGaAs-75WCER			FCI-InGaAs-120WCER			FCI-InGaAs-300WCER			FCI-InGaAs-400WCER			FCI-InGaAs-500WCER			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Active Area Diameter	$AA_\phi$	---	---	75	---	---	120	---	---	300	---	---	400	---	---	500	---	µm
Responsivity	$R_s$	$\lambda = 1310\text{nm}$	0.80	0.90	---	0.80	0.90	---	0.80	0.90	---	0.80	0.90	---	0.80	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	$C_j$	$V_R = 5.0\text{V}$	---	0.65	---	---	1.0	---	---	10.0	---	---	14.0	---	---	20.0	---	pF
Dark Current	$I_d$	$V_R = 5.0\text{V}$	---	0.03	2	---	0.05	2	---	0.30	5	---	0.40	5	---	0.50	20	nA
Rise Time/ Fall Time	$t_r/t_f$	$V_R = 5.0\text{V},$ $R_L = 50\Omega$ 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