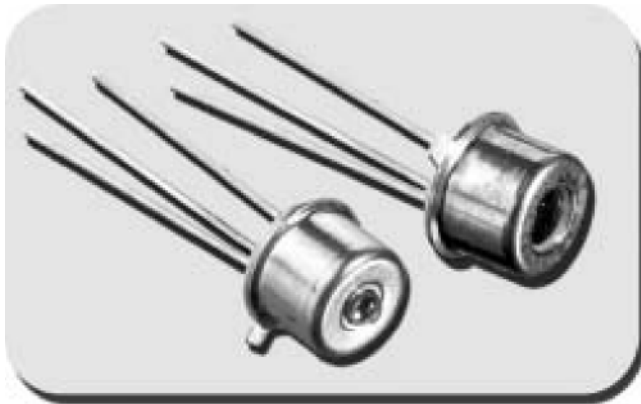


155Mbps / 622Mbps / 1.25Gbps / 2.5Gbps
High Speed InGaAs Photodiodes



APPLICATIONS

- High Speed Optical Communications
- Single/Multi-Mode Fiber Optic Receiver
- Gigabit Ethernet/Fibre Channel
- SONET/SDH, ATM
- Optical Taps

FEATURES

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

DESCRIPTION

FCI-InGaAs-XXX series with active area sizes of 55µm, 70µm, 120µm, 300µm, 400µm and 500µm, exhibit the characteristics need for Datacom and Telecom applications. Low capacitance, low dark current and high responsivity from 1100nm to 1620nm make these devices ideal for high-bit rate receivers used in LAN, MAN, WAN, and other high speed communication systems. The photodiodes are packaged in 3 lead isolated TO-46 cans or in 1 pin pill packages with AR coated flat windows or micro lenses to enhance coupling efficiency. FCI-InGaAs-XXX series is also offered with FC, SC, ST and SMA receptacles.

Absolute Maximum Ratings				
PARAMETERS	SYMBOL	MIN	MAX	UNITS
Storage Temperature	T _{stg}	-55	+125	°C
Operating Temperature	T _{op}	-40	+75	°C
Soldering Temperature	T _{slid}	---	+260	°C

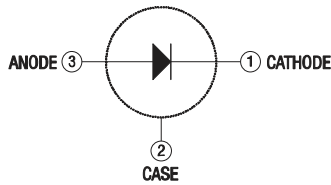
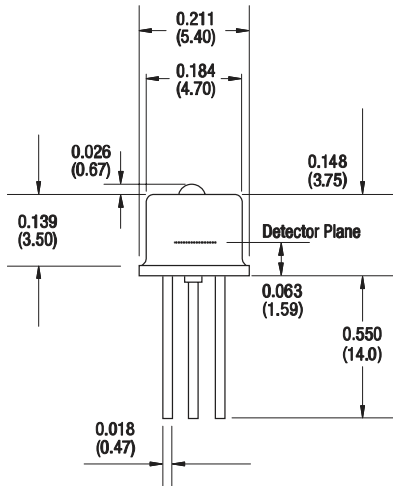
Electro-Optical Characteristics																				T _A =23°C	
PARAMETERS	SYMBOL	CONDITIONS	FCI-InGaAs-55			FCI-InGaAs-70			FCI-InGaAs-120			FCI-InGaAs-300			FCI-InGaAs-400			FCI-InGaAs-500			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Active Area Diameter	AA _b	---	---	55	---	---	70	---	---	120	---	---	300	---	---	400	---	---	500	---	µm
Responsivity	R _s	λ=1310nm	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	0.85	0.90	---	A/W
		λ=1550nm	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	0.90	0.95	---	
Capacitance	C _j	V _k = 5.0V	---	0.60	---	---	0.65	---	---	1.0	---	---	4.5	---	---	12.5	---	---	18.0	---	pF
Dark Current	I _d	V _k = 5.0V	---	0.02	2	---	0.03	2	---	0.05	2	---	0.10	5	---	0.15	5	---	0.20	20	nA
Rise Time/ Fall Time	t _r /t _f	V _k = 5.0V, R _L =50Ω 10% to 90%	---	---	0.2	---	---	0.2	---	---	0.3	---	---	1.5	---	---	3.0	---	---	4.0	ns
Max. Reverse Voltage	---	---	---	---	20	---	---	20	---	---	20	---	---	15	---	---	15	---	---	15	V
Max. Reverse Current	---	---	---	---	0.5	---	---	1	---	---	2	---	---	5	---	---	5	---	---	5	mA
Max. Forward Current	---	---	---	---	5	---	---	5	---	---	5	---	---	25	---	---	35	---	---	45	mA
NEP	---	---	---	2.66E-15	---	---	3.44E-15	---	---	4.50E-15	---	---	6.28E-15	---	---	7.69E-15	---	---	8.42E-15	---	W/√Hz

Germany and other countries: LASER COMPONENTS GmbH, Phone: +49 (0)8142 28640, Fax: +49 (0)8142 286411, info@lasercomponents.com
Great Britain: LASER COMPONENTS Ltd., Phone: +44 1245 491 499, Fax: +44 1245 491 801, info@lasercomponents.co.uk

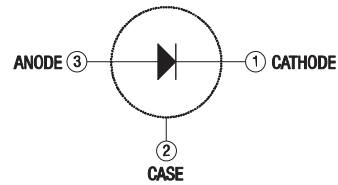
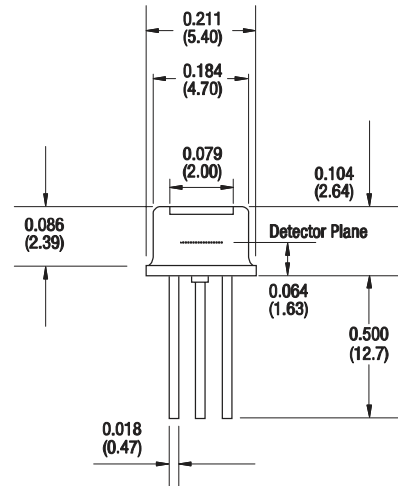
www.DataSheet4U.com

155Mbps / 622Mbps / 1.25Gbps / 2.5Gbps

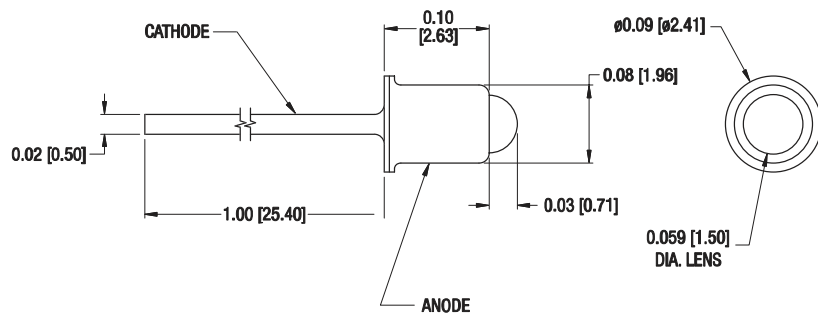
High Speed InGaAs Photodiodes



Pin Circle Diameter = 0.100 (2.54)



Pin Circle Diameter = 0.100 (2.54)



- Notes:
- 1) All units in inches (mm).
 - 2) All tolerances: 0.005 (0.125).
 - 3) Please specify when ordering the flat window or lens cap devices.
 - 4) The flat window devices have broadband AR coatings centered at 1310nm.
 - 5) The thickness of the flat window=0.008 (0.21).