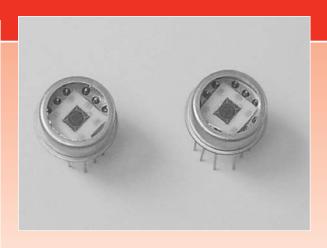
■ FCI-InGaAs-QXXX

Large Active Area InGaAs Quadrants

FCI-InGaAs-QXXX series are large active area InGaAs photodiodes segmented into four separate active areas. These photodiodes come in 1mm and 3mm active area diameter. The InGaAs Quad series with high response uniformity and the low cross talk between the elements are ideal for accurate nulling or centering applications as well as beam profiling applications. They exhibit excellent responsivity from 1100nm to 1620nm, and are stable over time and temperature, and fast response times necessary for high speed or pulse operation. The photodiodes are packaged in isolated TO-5 or TO-8 cans with a broadband double sided AR coated flat window, and also can be mounted on ceramic substrate per request.



APPLICATIONS

- Position Sensoring
- Beam Alignment
- Beam Profiling

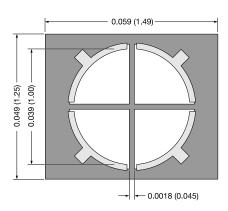
FEATURES

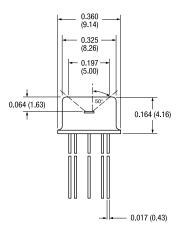
- High Responsivity
- Low Noise
- Spectral Range 900nm to 1700nm
- Low Crosstalk
- Wide Field of View

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 _{sld}		+260	°C	

Electro-Optical Characteristics (per 1 element) T _A =23°C						=23°C			
PARAMETERS	SYMBOL	MBOL CONDITIONS	FCI-InGaAs-Q1000		FCI-InGaAs-Q3000			UNITS	
PARAMETERS	STMBOL	CONDITIONS	MIN	TYP	MAX	MIN	TYP	MAX	DIATES
Active Area Diameter	AA_{ϕ}			1000			3000		μm
Responsivity	Responsivity R_{λ}	λ=1310nm	0.85	0.90		0.85	0.90		A /\\/
Responsivity		λ=1550nm	0.90	0.95		0.90	0.95		- A/W
Element Gap				0.045			0.045		mm
Capacitance	C _j	V _R = 5.0V			25			225	pF
Dark Current	I _d	V _R = 5.0V		0.5	15		2.0	100	nA
Rise Time/ Fall Time	t _r /t _f	V _R = 5.0V, 50Ω 10% to 90%		3			24		ns
Crosstalk		$\lambda = 1550 \text{nm},$ $V_R = 5.0 \text{V}$			1			1	%
Max. Revervse Voltage					15			10	V
NEP		λ=1550nm		1.20E-14			2.50E-14		W/√Hz

InGaAs-Q1000





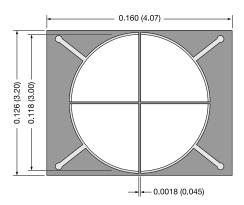


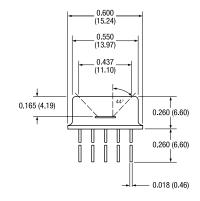
Pin Circle Dia.=0.230 **Bottom View**

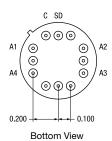
Pinout

PIN	Description
A1	ANODE QUADRANT 1
A2	ANODE QUADRANT 2
A3	ANODE QUADRANT 3
A4	ANODE QUADRANT 4
С	COMMON CATHODE

InGaAs-Q3000







Pinout

PIN	Description
A1	ANODE QUADRANT 1
A2	ANODE QUADRANT 2
A3	ANODE QUADRANT 3
A4	ANODE QUADRANT 4
С	COMMON CATHODE
SD	SUCTION DIODE

• All units in inches (mm).