

## 1x4 10 Gbps 1310/1550 nm PIN Array

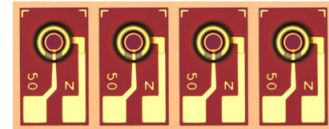
### MI5B-7450

Part Number: MI5B-7450

Applications: 40 Gbps

#### Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Value	Note
Forward Current	I <sub>F</sub>	mA	10	
Reverse Voltage	V <sub>R</sub>	V	20	
Die-Attach Temperature		°C	330	60 Seconds Max
Operating Temperature	T <sub>op</sub>	°C	-40 to 90	
Storage Temperature	T <sub>stg</sub>	°C	-40 to +100	



#### Electro-optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Aperture	D	μm	48	50	52	
Responsivity	R	A/W	0.85 0.90	0.90 0.95		λ = 1310 nm λ = 1550 nm
Dark Current	I <sub>D</sub>	nA		20	50	V <sub>R</sub> = 5 V
Breakdown Voltage	V <sub>B</sub>	V	20			I <sub>R</sub> = 1 μA
Capacitance	C	pF		0.16	0.22	V <sub>R</sub> = 5 V f = 1 MHz
Rise/Fall Time	τ <sub>r</sub> /τ <sub>f</sub>	ps			30	V <sub>R</sub> = 2 V 20-80%, R <sub>L</sub> = 50Ω
Cut-off Frequency	f <sub>C</sub>	GHz	9			V <sub>R</sub> = 2 V R <sub>L</sub> = 50Ω

#### Chip configuration:

- Both anode and cathode contacts on top (epi) surface.
- Dimension: 1000 μm (width) x 400 μm (length) x 130 μm (thickness)  
Tolerance: +/-12.5μm  
Per channel dimension: 250 μm (width) x 400 μm (length)
- Bond pad size: 70 x 80 μm square
- P-bond pad on left