

1310/1550nm PIN Chip

Part Number: DI0A-7050

Product Description:

DI0A-7050 is a top-illuminated InGaAs PIN photodiode with extreme low dark current. The detection window is 500 μm . It features high responsivity from 1270 to 1620 nm wavelength range.

Applications: Optical power monitoring of laser diodes (VCSEL, FP or DFB)

Product Specifications:

Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Value
Forward Current	I_F	mA	1
Reverse Voltage	V_R	V	10
Reverse Current	I_R	μA	10
Die-Attach Temperature		$^{\circ}\text{C}$	330(60 seconds max)
Operating Temperature	T_{op}	$^{\circ}\text{C}$	-40 to 90
Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-40 to 85

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

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Aperture	D	μm	490	500	510	
Responsivity	R	A/W	0.5 0.7	1 1		$V_R = 1.0 \sim 5\text{V}$, $\lambda = 1270 \sim 1620\text{nm}$ $\lambda = 1310/1550\text{nm}$
Dark Current	I_D	nA		1	3	$V_R = 5\text{ V}$ at 25°C
Dark Current	I_D	nA		20	50	$V_R = 5\text{ V}$ at 90°C
Breakdown Voltage	V_B	V	20			$I_R = 10\ \mu\text{A}$ at 25°C
Capacitance	C	pF		20	60	$V_R = 5\text{ V}$ $f = 1\text{ MHz}$, T= 25°C

Outline and Dimensions:

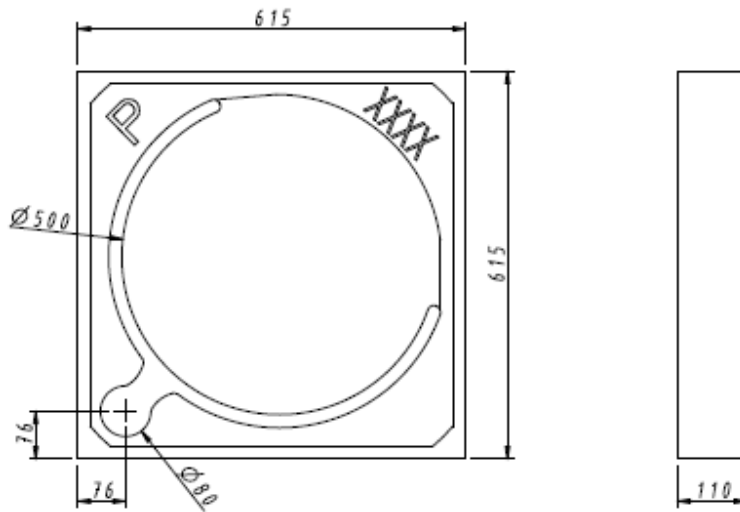


Fig. 1 Chip top view and side view

Chip configuration:

1. Top contact: Anode; Bottom contact: Cathode
2. Anode bond-pad diameter: 80um
3. Dimension: 615um (width) x 615 um (length), Tolerance: +/-25um
110 um (thickness), Tolerance: +/-10um