

### ■ Scope :

- This specification applies to InGaAs PIN photodiode chips.
- Device No. ED-PIN1010VA7

### ■ Features :

- High response
- Small dark current
- Low back reflection
- Stability
- Good reliability

### ■ Typical Applications :

- CATV analog receiver
- Optical communication
- Fiber sensor
- Optical parameter test

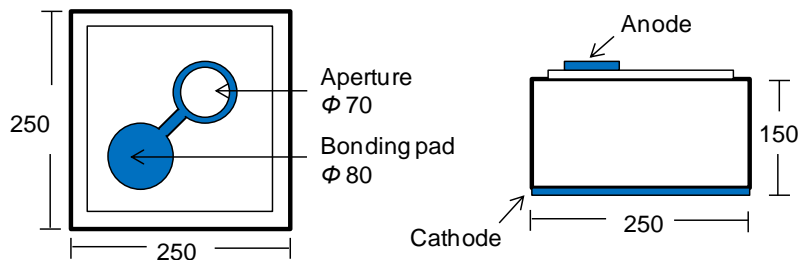
### ■ Structure :

- Type : PIN diode.
- Electrodes :  
Top side ( Anode ) : Au alloy.  
Back side ( Cathode ) : Au alloy.

### ■ Size :

- Chip size : 9.8 mils × 9.8 mils (0.25 mm × 0.25 mm).
- Chip thickness :  $5.9 \pm 1$  mils ( $0.15 \pm 0.025$  mm).
- Aperture size :  $\phi = 2.76$  mils ( $\phi = 0.07$  mm).
- Bonding pad ( Anode ) :  $\phi = 3.2$  mils ( $\phi = 0.08$  mm).

### ■ Outline Dimensions: (Unit: $\mu\text{m}$ )



### ■ Electro-optical characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
*Reverse Dark Current	ID	VR=5V Ee=0mW/cm <sup>2</sup>		0.1	1	nA
*Reverse Breakdown Voltage	V(BR)R	IR=1uA Ee=0mW/cm <sup>2</sup>	20	40		V
*Forward Voltage	VF	IF=3mA Ee=0mW/cm <sup>2</sup>		0.65	0.8	V
Capacitance	Cp	VR=5V f=1MHz		0.45		pF
Responsivity	Resp	VR=5V Wavelength=1310nm	0.8	0.9		A/W
Bandwidth	BW	-		2.5		GHz

\*Based on 100% probing