

**1. Scope :**

This specification applies to PIN silicon photodiode chips,  
Device No. PD-3162

**2. Structure :**

- 2-1. Planar type : PIN diode.
- 2-2. Electrodes :  
Top side ( Anode ) : Aluminum alloy .  
Back side ( Cathode ) : Gold alloy.

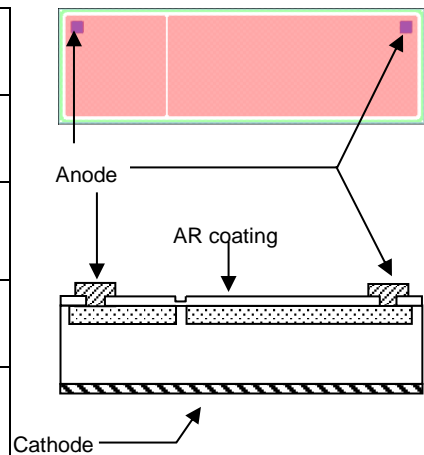
**3. Size :**

- 3-1. Chip size : 90.6 mils x 289.4 mils (2.300 mm x 7.350 mm ).
- 3-2. Chip thickness :  $8.66 \pm 0.98$  mils ( $0.220 \pm 0.025$  mm).
- 3-3. Active area : Small: 78.7 mils x 78.7 mils (2.000 mm x 2.000 mm ).  
Large: 78.7 mils x 196.9 mils (2.000 mm x 5.000 mm ).
- 3-4. Bonding pad ( Anode ) : 9.8 mils x 9.8 mils (0.250 mm x 0.250 mm )
- 3-5. Pattern drawing : Refer to the attached drawing.

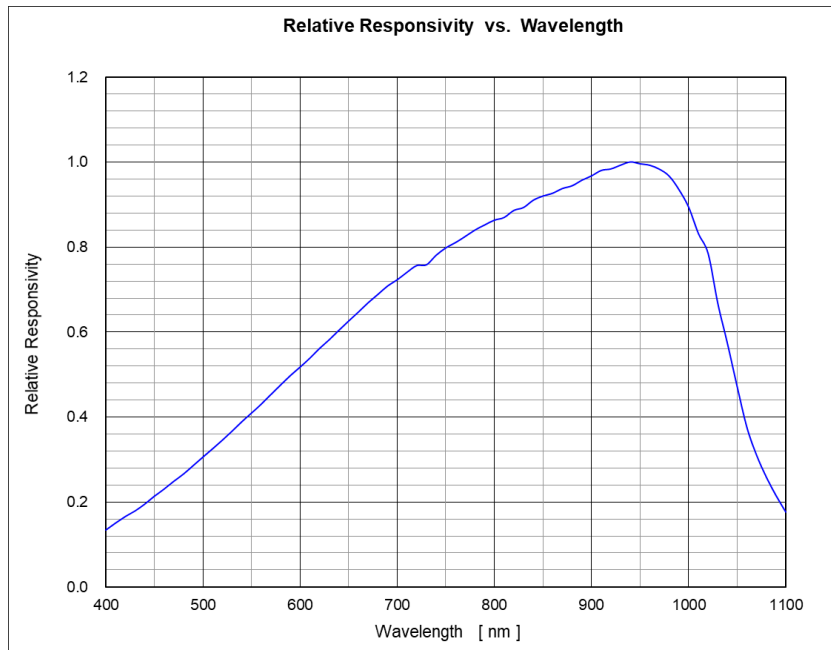
**4. Electro-optical characteristics (Ta = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
**Reverse dark Current	$I_D$	$V_R=10V$ $E_e=0mW/cm^2$			10	nA
**Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100 \mu A$ $E_e=0mW/cm^2$	60			V
Open circuit Voltage	$V_{oc}$	$T=2856K$ $E_e=5mw/cm^2$		390		mV
Short circuit Current	$I_{sc}$	small		45		$\mu A$
		large	$T=2856K$ $E_e=5mW/cm^2$	115		
Reverse light Current	$I_L$	small		45		$\mu A$
		large	$V_R =5V$ $T=2856K$ $E_e=5mW/cm^2$	115		
Total Capacitance	$C_t$	small		8		pF
		large	$V_R =5V$ $E_e=0mW/cm^2$ $f=1MHz$	13		

\*Based on 100% probing



## 5. Relative spectral responsivity



<sup>2</sup> bare chip measured with integrating sphere, for reference only.