

**1. Scope :**

This specification applies to PIN silicon photodiode chips,  
Device No. PD-0080

**2. Structure :**

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

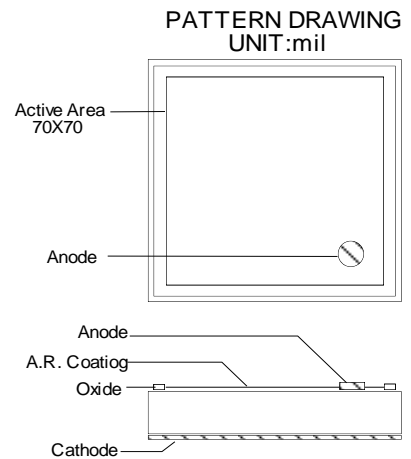
**3. Size :**

- 3-1. Chip size : 80 mils × 80 mils (2.030 mm × 2.030 mm ).
- 3-2. Chip thickness : 12 ± 1.5 mils ( 0.305 ± 0.038 mm).
- 3-3. Active area : 70 mils × 70 mils (1.780 mm × 1.780 mm ).
- 3-4. Bonding pad (Anode ) : 6 mils ( 0.150 mm ) diameter.
- 3-5. Pattern drawing : refer to the attached drawing.

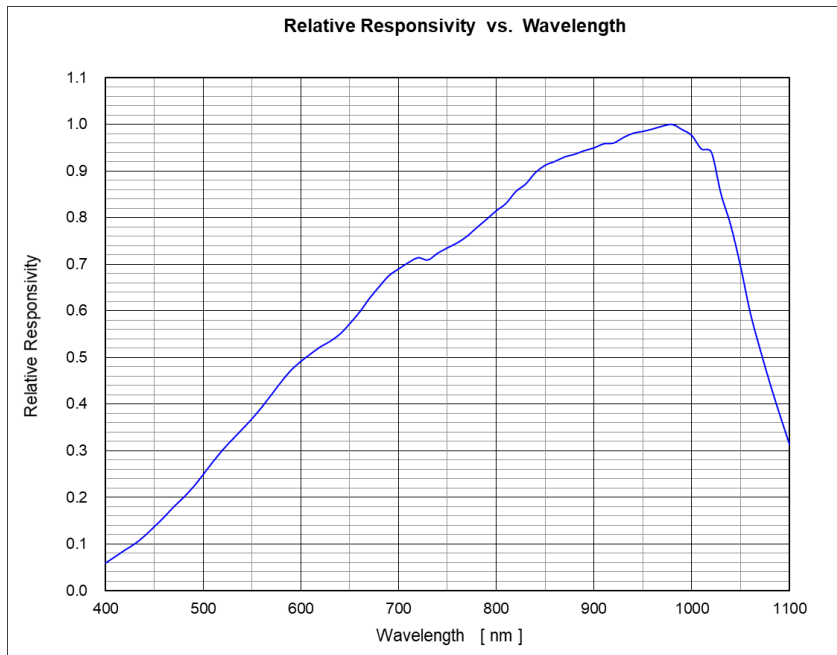
**4. Electro-optical characteristics (Ta = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
*Reverse dark Current	$I_D$	$V_R=10V$ $E_e=0mW/cm^2$			30	nA
*Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$ $E_e=0mW/cm^2$	33			V
Open circuit Voltage	$V_{oc}$	$T=2856K$ $E_e=5mW/cm^2$		390		mV
Short circuit Current	$I_{sc}$	$T=2856K$ $E_e=5mW/cm^2$	23	28		$\mu A$
Reverse light Current	$I_L$	$V_R=5V$ $T=2856K$ $E_e=5mW/cm^2$	23	28		$\mu A$
Total Capacitance	$C_t$	$V_R=5V$ $E_e=0mW/cm^2$ $f=1MHz$		8		pF
Turn-on/ Turn-off time	ton/toff	$V_R=10V$ $R_L=50\Omega$ $\lambda=850nm$		50/50		nS

\*Based on 100% probing



### 5. Relative spectral responsivity



\* Bare chip measured with integrating sphere, for reference only.