

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device No. PD-0120AT

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 : 120 mils × 240 mils (3.000 mm × 6.000 mm).
- 3-2. Chip thickness : 12 ± 1.5 mils (0.305 ± 0.038 mm).
- 3-3. Active area : 107 mils × 107 mils (2.675 mm × 2.675 mm) x 2 elements.
- 3-4. Bonding pad (Anode) : 9 mils × 9 mils (0.225 mm × 0.225 mm).
- 3-5. Pattern drawing : Refer to the attached drawing.

4. Electro-optical characteristics_each chip (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	$V_{(BR)R}$	$I_R=100\mu A$ $E_e=0mW/cm^2$	60			V
Open circuit voltage	V_{oc}	$T=2856K$ $E_e=5mW/cm^2$		350		mV
Short circuit Current	I_{sc}	$T=2856K$ $E_e=5mW/cm^2$		73		μA
Reverse light current	I_L	$V_R=5V$ $T=2856K$ $E_e=5mW/cm^2$		73		μA
Total Capacitance	C_t	$V_R=5V$ $E_e=0mW/cm^2$ $f=1MHz$		19		pF
Resposivity	R_ϕ	$V_R=10V$	$\lambda=940nm$	0.6		A/W
			$\lambda=880nm$	0.55		
			$\lambda=650nm$	0.3		
Turn-on/Turn-off Time	ton/toff	$V_R=10V$ $R_L=1K\Omega$	$\lambda=940nm$	1000/1000		nS
			$\lambda=880nm$	200/200		
			$\lambda=650nm$	80/80		
Turn-on/Turn-off Time	ton/toff	$V_R=5V$ $R_L=50\Omega$	$\lambda=850nm$	50/50		nS

*Based on 100% probing

