

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device No. PD-0090

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 mils × 90 mils (2.250 mm × 2.250 mm).
- 3-2. Chip thickness : 12 ± 1.5mils (0.305 ± 0.038mm).
- 3-3. Active area : 80 mils × 80 mils (2.000 mm × 2.000 mm).
- 3-4. Bonding pad (Anode) : 6.5 mils × 6.5 mils (0.165mm × 0.165 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	$V_R=10V$ $E_e=0mW/cm^2$			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}	$T=2856K$ $E_e=5mW/cm^2$	30	40		μA
Reverse light Current	I_L	$V_R=5V$ $T=2856K$ $E_e=5mW/cm^2$	30	40		μA
Total Capacitance	C_t	$V_R=5V$ $E_e=0mW/cm^2$ $f=1MHz$		11		pF
Turn-on/ Turn-off Time	t_{on}/t_{off}	$V_R=5V$ $R_L=50\Omega$ $\lambda=850nm$		50/50		nS
**Forward Voltage	V_F	$I_F=10mA$ $E_e=0mW/cm^2$	0.7		1.3	V

**Based on 100% probing

