

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0090

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 × 2.250mm).
- 3-2. Chip thickness : 12 ± 1.5 mils (0.305 ± 0.038 mm).
- 3-3. Active area : 80 mils × 80 mils (2.000 mm × 2.000mm).
- 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	$V_R=10V$ $H=0mw/cm^2$		5	30	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100uA$ $H=0mw/cm^2$	33	170		V
Open circuit Voltage	V_{oc}	$C_T=2870^{\circ}k$ $H=5mw/cm^2$		390		mV
Short circuit Current	I_{sc}	$C_T=2870^{\circ}k$ $H=5mw/cm^2$	30	40		μA
Reverse light Current	I_L	$V_R=5V$ $C_T=2870^{\circ}k$ $H=5mw/cm^2$	30	40		μA
Total Capacitance	C_t	$V_R=5V$ $H=0mw/cm^2$ $f=1MHz$		16		pF
Turn-on/ Turn-off Time	t_{on}/t_{off}	$V_R=2V$ $R_L=200\Omega$ $\lambda=905nm$		250/550		nS

