

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0070

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device No. PD-0070

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 : 70 mils $\times$ 70 mils (1.780 mm $\times$ 1.780 mm).

3-2. Chip thickness : 12 ± 1.5 mils (0.305 ± 0.038 mm).

3-3. Active area : 60 mils $\times$ 60 mils (1.520 mm $\times$ 1.520 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	$V_R=10V$ $H=0\text{mw/cm}^2$		5	30	nA
Reverse breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$ $H=0\text{mw/cm}^2$	33	170		V
Open circuit voltage	V_{oc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		390		mV
Short circuit Current	I_{sc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$	18	22		μA
Reverse light current	I_L	$V_R=5V$ $C_T=2870^\circ K$ $H=5\text{mw/cm}^2$	18	22		μA
Total Capacitance	C_t	$V_R=5V$ $H=0\text{mw/cm}^2$ $f=1\text{MHz}$		9		pF
Turn-on/turn-off time	t_{on}/t_{off}	$V_R=2V$ $R_L=200\Omega$ $\lambda=905\text{nm}$		250/550		nS

