

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0106

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device No. PD-0106.

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 : 106 mils × 106 mils (2.690 mm × 2.690 mm).

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

3-3. Active area : 95 mils × 95 mils (2.410 mm × 2.410 mm).

3-4. Bonding pad (Anode) : 6.4 mils × 6.4 mils (0.160 mm × 0.160 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 darkcurrent	I_D	$V_R=10V$ $H=0\text{mw/cm}^2$		5	30	nA
Reverse breakdown voltage	$V_{(BK)R}$	$I_R=100\mu A$ $H=0\text{mw/cm}^2$	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}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$	39	55		μA
Reverse light current	I_L	$V_R=5V$ $C_T=2870^\circ K$ $H=5\text{mw/cm}^2$	40	56		μA
Total Capacitance	C_t	$V_R=5V$ $H=0\text{mw/cm}^2$ $f=1\text{MHz}$		20		pF
Turn-on/ Turn-off time	ton/toff	$V_R=10V$ $R_L=1000\Omega$		45/45		nS

