

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0066

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device No. PD-0066

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 : 60 mils × 60 mils (1.524 mm × 1.524 mm).

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

3-3. Active area : 49 mils × 49 mils (1.245 mm × 1.245 mm).

3-4. Bonding pad (Anode) : 6.0 mils (0.152 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	$V_R=10V$ $H=0\text{mw/cm}^2$			10	nA
Reverse breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$ $H=0\text{mw/cm}^2$	60	170		V
Open circuit voltage	V_{oc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		410		mV
Short circuit Current	I_{sc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		15		μA
Reverse light current	I_L	$V_R=5V$ $C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		15		μA
Total Capacitance	C_t	$V_R=5V$ $H=0\text{mw/cm}^2$ $f=1\text{MHz}$		6		pF
Resposivity	R_ϕ	$V_R=10V$	$\lambda=940\text{nm}$	0.6		A/W
			$\lambda=880\text{nm}$	0.55		
			$\lambda=650\text{nm}$	0.3		
Turn-on/ turn-off Time	$\text{ton/toff}_{10}^{90}$	$V_R=10V$ $R_L=1K\Omega$	$\lambda=940\text{nm}$	1000/1000		nS
			$\lambda=880\text{nm}$	150/150		
			$\lambda=650\text{nm}$	30/30		
Turn-on/ turn-off Time	$\text{ton/toff}_{10}^{90}$	$V_R=50V$ $R_L=50\Omega$	$\lambda=940\text{nm}$	5/5		nS

