

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-2054

1. Scope :

This specification applies to NIP silicon photodiode chips,
Device No. PD-2054

2. Structure :

2-1. Planar type : NIP diode.

2-2. Electrodes :

Top side (Anode) : Aluminum alloy .

Back side (Cathode) : Gold alloy.

3. Size :

3-1. Chip size : 56 mils × 52 mils (1.422 mm × 1.320 mm).

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

3-3. Active area : 45 mils × 41 mils (1.143 mm × 1.041 mm).

3-4. Bonding pad (anode) : 6.5 mils × 6.5 mils (0.165 mm × 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	$V_R=10V$ $H=0\text{mw/cm}^2$			10	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$ $H=0\text{mw/cm}^2$	60	200		V
Open circuit voltage	V_{oc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		410		mV
Short circuit Current	I_{sc}	$C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		11		μA
Reverse light current	I_L	$V_R=5V$ $C_T=2870^\circ K$ $H=5\text{mw/cm}^2$		11		μA
Total Capacitance	C_t	$V_R=3V$ $H=0\text{mw/cm}^2$ $f=1\text{MHz}$		4		pF
Turn-on/ Turn-off Time	$T_{on/off}$	$V_R=10V$ $R_L=1000\Omega$ $\lambda_p=905\text{nm}$		240/350		ns

