

**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 ( Cathode ) : Aluminum alloy .  
Back side ( Anode ) : 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 ± 0.038mm).
- 3-3. Active area : 45 mils × 41 mils (1.143 mm × 1.041mm ).
- 3-4. Bonding pad ( Cathode ) : 6.5 mils × 6.5 mils(0.165 mm × 0.165mm ).
- 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	$I_D$	$V_R=10V$ $E_e=0mW/cm^2$			10	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100 \mu A$ $E_e=0mW/cm^2$	60			V
Open circuit voltage	$V_{oc}$	$T=2856K$ $E_e=5mW/cm^2$		410		mV
Short circuit Current	$I_{sc}$	$T=2856K$ $E_e=5mW/cm^2$		11		$\mu A$
Reverse light current	$I_L$	$V_R =5V$ $T=2856K$ $E_e=5mW/cm^2$		11		$\mu A$
Total Capacitance	$C_t$	$V_R =3V$ $E_e=0mw/cm^2$ $f=1MHz$		4		pF
Turn-on/ Turn-off Time	ton/toff	$V_R=10V$ $R_L=1000 \Omega$ $\lambda_p=905nm$		240/350		ns

\*Based on 100% probing

