

**1. Scope :**

This specification applies to NIP silicon photodiode chips,  
Device No. PD-2120B

**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 : 115 mils × 115 mils ( 2.921 mm × 2.921 mm ).
- 3-2. Chip thickness : 12 ± 1.5mils ( 0.305 ± 0.038mm ).
- 3-3. Active area : 102 mils × 102 mils ( 2.590 mm × 2.590 mm ).
- 3-4. Bonding pad (Cathode) : 8 mils ( 0.200mm ) 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	$I_D$	$V_R=10V$ $E_e=0mW/cm^2$			30	nA
*Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$ $E_e=0mW/cm^2$	33			V
Open circuit Voltage	$V_{oc}$	$T=2856K$ $E_e=5mW/cm^2$		350		mV
Short circuit Current	$I_{sc}$	$T=2856K$ $E_e=5mW/cm^2$		66		$\mu A$
Reverse light Current	$I_L$	$V_R =5V$ $T=2856K$ $E_e=5mW/cm^2$		66		$\mu A$
Total Capacitance	$C_t$	$V_R =5V$ $E_e=0mW/cm^2$ $f=1MHz$		17		pF
Turn-on/ Turn-off Time	$t_{on}/t_{off}$	$V_R=5V$ $R_L=50\Omega$ $\lambda=850nm$		80/80		nS

\*Based on 100% probing

