

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-2240

1. Scope :

This specification applies to NIP silicon photodiode chips,
Device No. PD-2240.

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 : 40 mils × 40 mils (1.016 mm × 1.016 mm).

3-2. Chip thickness : 8.6 ± 1.2 mils (0.220 ± 0.030 mm).

3-3. Active area : 33 mils × 33 mils (0.838 mm × 0.838 mm).

3-4. Bonding pad (Cathode) : 6.4 mils (0.162 mm) diameter.

3-5. Pattern drawing : Refer to the attached drawing.

4. Electro-optical characteristics (Ta = 25°C)

Parameters	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Dark Current	I_D	$V_R = -10$ V $H = 0$ mw/cm ²			-10	nA
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = -100$ μ A $H = 0$ mw/cm ²	-35			V
Forward Voltage	V_F	$I_F = 10$ mA $H = 0$ mw/cm ²			1.2	V
Reverse Light Current	I_L	$V_R = -5$ V $C_T = 2870^\circ$ K $H = 5$ mw/cm ²		3		μ A
Open Circuit Voltage	V_{oc}	$C_T = 2870^\circ$ K $H = 5$ mw/cm ²		410		mV
Short Circuit Current	I_{sc}	$C_T = 2870^\circ$ K $H = 5$ mw/cm ²		3		μ A
Total Capacitance	C_T	$V_R = -3.5$ V $H = 0$ mw/cm ² $f = 1$ MHz		25	38	pF
Turn-on/Turn-off Time	ton/toff	$V_R = -3.5$ V $R_L = 50 \Omega$		20/20		ns

