

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0120B

1. Scope :

This specification applies to PIN silicon photodiode chips,

Device No. PD-0120B

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 : 115 mils $\times$ 115 mils (2.920 mm $\times$ 2.920 mm).

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

3-3. Active area : 102 mils $\times$ 102 mils (2.590 mm $\times$ 2.590 mm).

3-4. Bonding pad (anode) : 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	$V_R = 10V$ $H = 0 \text{ mw/cm}^2$		5	30	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 100 \mu A$ $H = 0 \text{ mw/cm}^2$	33	170		V
Open circuit Voltage	V_{oc}	$C_T = 2870^\circ K$ $H = 5 \text{ mw/cm}^2$		350		mV
Short circuit Current	I_{sc}	$C_T = 2870^\circ K$ $H = 5 \text{ mw/cm}^2$		66		μA
Reverse light Current	I_L	$V_R = 5V$ $H = 5 \text{ mw/cm}^2$		66		μA
Total Capacitance	C_t	$V_R = 3V$ $H = 0 \text{ mw/cm}^2$ $f = 1 \text{ MHz}$		25		pF
Turn-on/ turn-off Time	ton/toff	$V_R = 2V$ $R_L = 200 \Omega$ 905nm		300/600		nS

