

SILICON PHOTODIODE CHIPS

DEVICE NO. : PD-0233

1. Scope :

This specification applies to PN silicon photodiode chips,
Device NO. PD-0233

2. Structure :

2-1. Planar type : PN Diode.

2-2. Electrodes :

Top side (Anode) : Aluminum Alloy .

Back side (Cathode) : Gold Alloy.

3. Size :

3-1. Chip size : 23.6 mils × 33.5 mils (0.60 mm × 0.85 mm).

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

3-3. Active area : 17.7 mils × 27.6 mils (0.45 mm × 0.70 mm).

3-4. Bonding pad (Anode) : 4 mils× 4 mils (0.10mm × 0.10 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 light current	I_L	$V_R=5V$ $H=5\text{mw/cm}^2$	2			μA
Reverse dark current	I_D	$V_R=5V$ $H=0\text{mw/cm}^2$			0.5	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=5\mu A$ $H=0\text{mw/cm}^2$	50			V
Forward Voltage	V_F	$I_F=100\text{mA}$		1.3	1.5	V
Total Capacitance	C_t	$V_R=20V$ $H=0\text{mw/cm}^2$ $f=1\text{MHz}$			2.5	pF
Resposivity	R_ϕ	$V_R=10V$	$\lambda=880\text{nm}$	0.50		A/W
			$\lambda=650\text{nm}$	0.3		
Turn-on/ Turn-off Time	$\text{ton/toff}_{10}^{90}$	$V_R=10V$ $R_L=50\Omega$	$\lambda=880\text{nm}$	3000/3000		nS
			$\lambda=650\text{nm}$	5/5		

