

**1. Scope :**

This specification applies to PIN silicon photodiode chips,  
Device No. PD-0131

**2. Structure :**

- 2-1. Planar type : PIN diode.
- 2-2. Electrodes :  
Top side ( Anode ) : Aluminum alloy .  
Back side (Cathode ) : Gold alloy .

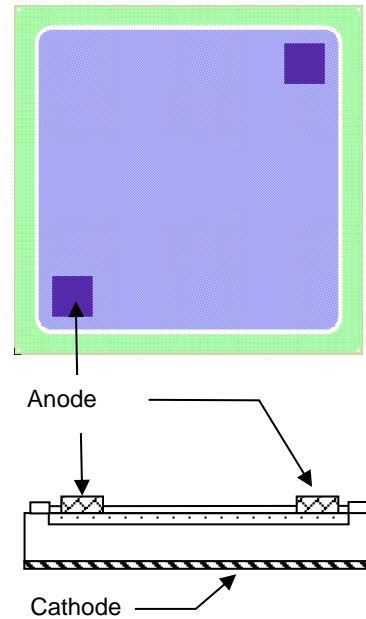
**3. Size :**

- 3-1. Chip size : 132.0 mils x 132.0 mils ( 3.353 mm x 3.353 mm ).
- 3-2. Chip thickness :  $12.0 \pm 1.5$  mils (  $0.305 \pm 0.038$  mm ).
- 3-3. Active area : 113.0 mils x 113.0 mils ( 2.870 mm x 2.870 mm ).
- 3-4. Bonding pad (Anode ) : 15.0 mils x 15.0 mils (0.381 mm x 0.381 mm ).
- 3-5. Pattern drawing : Refer to the attached drawing.

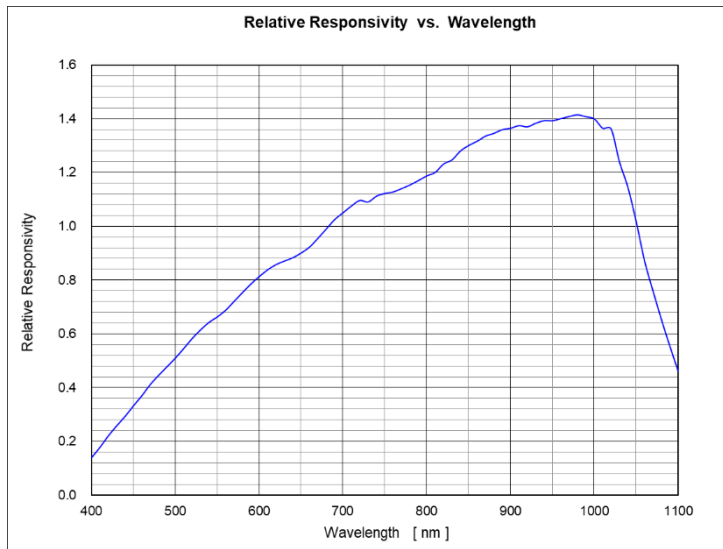
**4. Electro-optical characteristics (Ta = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse dark Current	$I_D$	$V_R=10V$ $E_e=0mW/cm^2$			30	nA
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$ $E_e=0mW/cm^2$	60			V
Open circuit Voltage	$V_{oc}$	$T=2856K$ $E_e=5mW/cm^2$		350		mV
Short circuit Current	$I_{sc}$	$T=2856K$ $E_e=5mW/cm^2$		83		$\mu A$
Reverse light Current	$I_L$	$V_R=5V$ $T=2856K$ $E_e=5mW/cm^2$		85		$\mu A$
Total Capacitance	$C_t$	$V_R=5V$ $E_e=0mW/cm^2$ $f=1MHz$		19		pF

\*Based on 100% probing



### 5. Relative spectral responsivity



<sup>38</sup> Bare chip measured with integrating sphere, for reference only.