

**1. Scope :**

This specification applies to PIN silicon photodiode chips,  
Device No. PD-30153-B.

**2. Structure :**

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

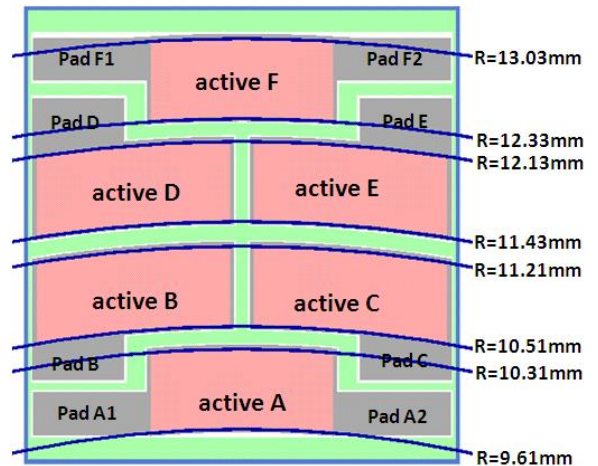
**3. Size :**

- 3-1. Chip size (including scribe line) : 3.80 mm × 4.00 mm.
- 3-2. Chip thickness : 0.305 mm ± 0.025 mm.
- 3-3. Active area :  
A : 1.60 mm x 0.70 mm ; R<sub>1</sub>=9.61mm, R<sub>2</sub>=10.31mm.  
B & C : 1.70 mm x 0.70 mm ; R<sub>1</sub>=10.51mm, R<sub>2</sub>=11.21mm.  
D & E : 1.70 mm x 0.70 mm ; R<sub>1</sub>=11.43mm, R<sub>2</sub>=12.13mm.  
F : 1.60 mm x 0.70 mm ; R<sub>1</sub>=12.33mm, R<sub>2</sub>=13.03mm.
- 3-4. Bonding pad (Anode) : A1 & A2 : 1.005 mm x 0.37 mm.  
B & C : 0.795 mm x 0.282 mm.  
D & E : 0.795 mm x 0.404 mm.  
F1 & F2 : 0.990 mm x 0.370 mm.
- 3-5. Pattern drawing : refer to the attached drawing.

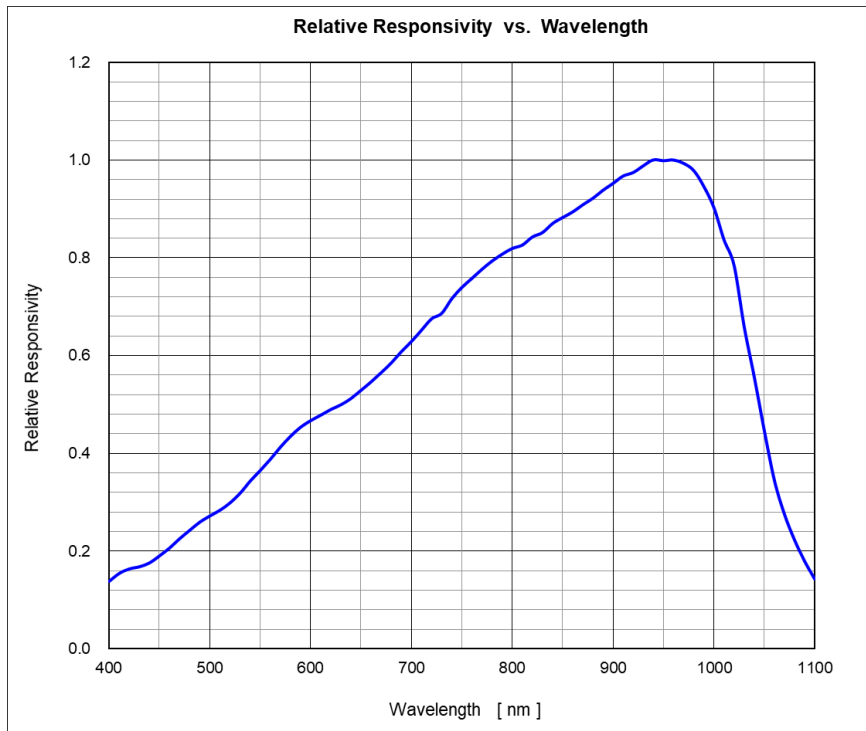
**4. Electro-optical characteristics\_ one chip (Ta = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
*Reverse dark Current	I <sub>D</sub>	V <sub>R</sub> =20V E <sub>e</sub> =0mW/cm <sup>2</sup>			10	nA
*Reverse breakdown voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =100uA E <sub>e</sub> =0mW/cm <sup>2</sup>	60			V
*Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA E <sub>e</sub> =0mW/cm <sup>2</sup>			1.2	V
Open circuit Voltage	V <sub>oc</sub>	T=2856K E <sub>e</sub> =5mW/cm <sup>2</sup>		395		mV
Total Capacitance	C <sub>t</sub>	V <sub>R</sub> =5V E <sub>e</sub> =0mW/cm <sup>2</sup> f=1MHz		9		pF

\*Based on 100% probing



## 5. Relative spectral responsivity



\*bare chip measured with integrating sphere, for reference only.