

1. Scope :

This specification applies to PIN silicon photodiode chips,
Device NO. PD-30040-B.

2. Structure :

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

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 : 32 mils × 32 mils (0.813 mm × 0.813 mm).
- 3-4. Bonding pad (Anode) : 5.4 mils (0.137 mm) Diameter.
- 3-5. Pattern drawing: Refer to the attached drawing.

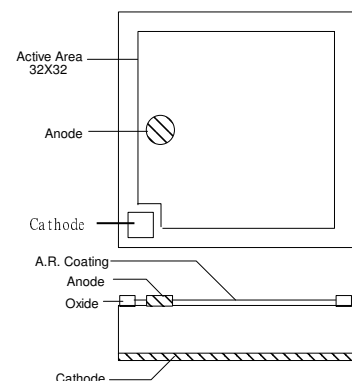
4. Absolute maximum rating ($T_a = 25^\circ\text{C}$):

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	30	V
Operating temperature	T_{opr}	-40~+85	$^\circ\text{C}$
Storage temperature	T_{stg}	-40~+100	$^\circ\text{C}$
Junction temperature	T_j	125	$^\circ\text{C}$

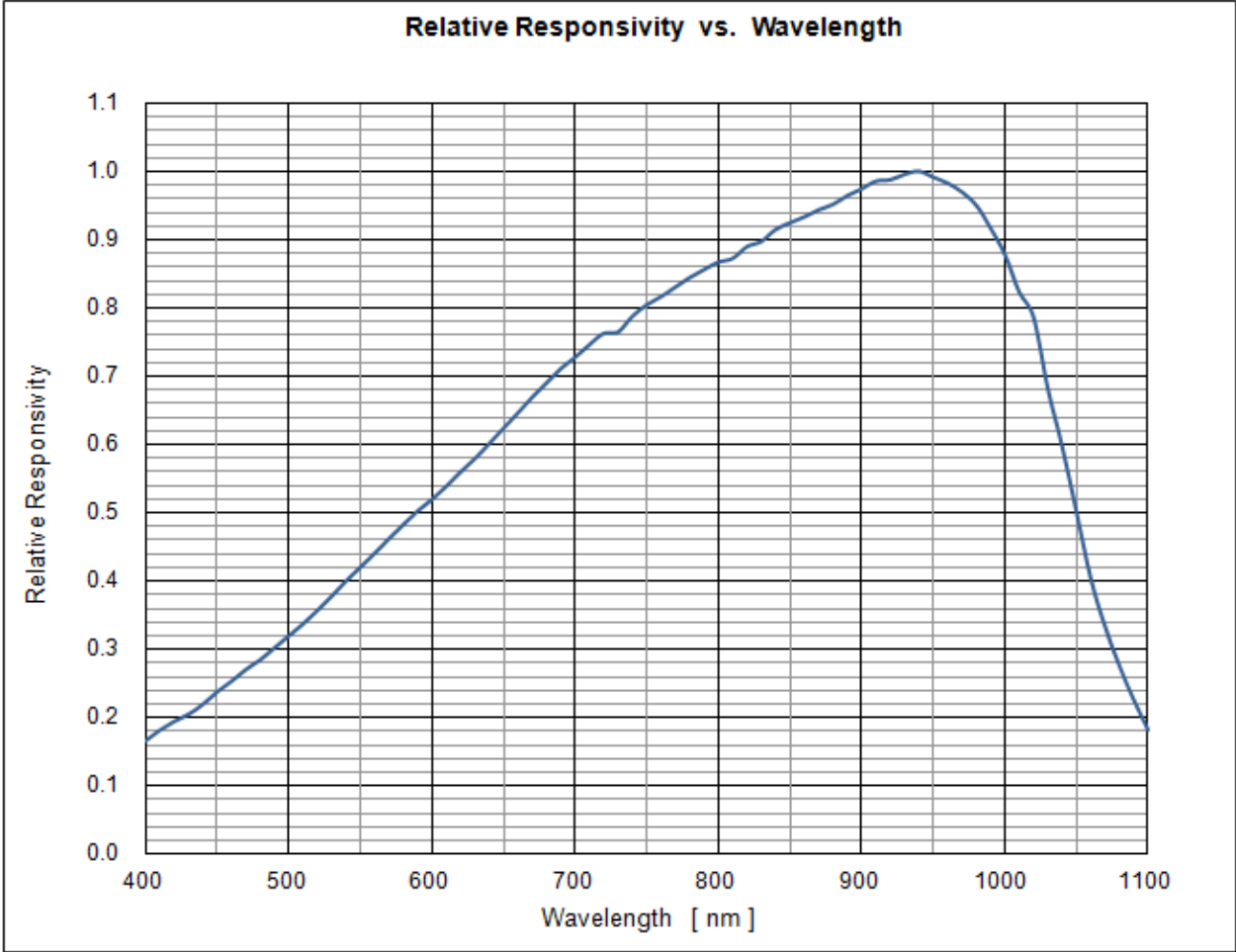
5. Electro-optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
*Reverse dark Current	I_D	$V_R=10\text{V}$ $E_e=0\text{mW/cm}^2$			10	nA
*Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$ $E_e=0\text{mW/cm}^2$	33			V
Sensitivity Wavelength Range	λ	-	400		1100	nm
Peak sensitivity wavelength	λ_p	-		940		nm
Total Capacitance	C_T	$V_R=0\text{V}$ $E_e=0\text{mW/cm}^2$ $f=1\text{MHz}$		6.2		pF
Sensitivity	S	$V_R=3\text{V}$, $\lambda=940\text{nm}$		0.60		A/W

*Based on 100% probing



6. Relative spectral response :



Bare chip measured, for reference only.