

Photoelectric Sensor

Photoelectric sensor is a device for converting the optical signal into electrical signal. It has good current linearity, low cost, small volume, long life and other advantages, It is suitable for detecting rapid changing of optical signal, such as light communication, fiber optics, distance measurement, face communication, etc.

● Features

- ▶ Si-based PIN planar type
- ▶ Ultra-small size 14mil * 14mil

● Structure

- ▶ Electrode topside (anode): Aluminum
- ▶ Electrode backside (cathode): Au

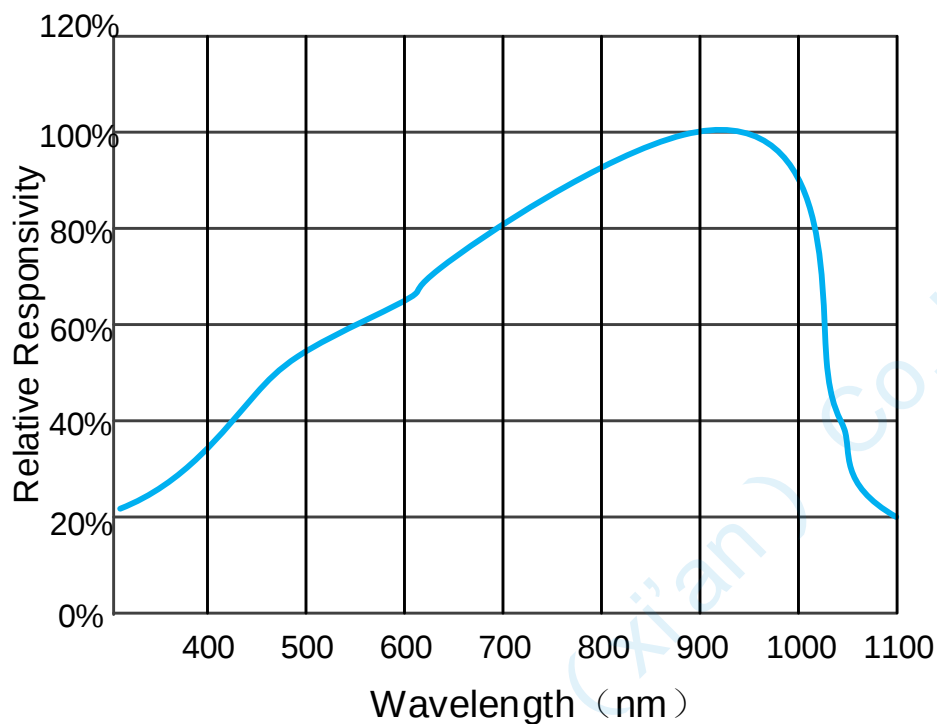
● Size

Parameter	Value (mil)	Value (mm)
Chip size	14.17mil x 14.17mil (±1.3mil)	0.360mm x 0.360mm (±0.036mm)
Thickness	6mil ± 1mil	0.150mm ± 0.025mm
Active area	10.63mil × 10.63mil ± 0.4mil	0.270mm × 0.270mm ± 0.010mm
Pad size	3.1mil ± 0.2mil	0.078mm ± 0.005mm

● Electrical Characteristics(T= 25℃)

Parameter	Symbol	Min	Type	Max	Unit	Test Conditions
Reverse Breakdown Voltage	V_{BR}	30	—	—	V	$I_R = 100\mu A$, $H=0$
Forward Voltage	V_F	—	—	1.5	V	$I_F = 10mA$, $H=0$
Reverse Dark Current	I_D	—	0.1	10	nA	$V_R = 5V$, $H=0$
Light Current	I_L	—	2.5	—	μA	$V_R = 5V, 1mw/cm^2@940nm$
Peak Sensing Wavelength	λ_p	—	940	—	nm	
Junction Capacitance	C_J		0.3		pF	$V_R=5V$, $F=1\text{ MHz}$, $H=0$

● Spectral Response



● Outline dimension (mil)

