Si photodetector (TO package)



Description:

The product is a silicon PIN photodiode, which works under reverse bias condition. The peak wavelength is about 940nm, and the spectrum detection range is from 400 nm to 1100 nm.

Features:

- Plane orthographic structure
- Quick response
- Low dark current
- High responsiveness
- High reliability

Optional:

- Optical fiber communication, sensing and ranging
- Light detection from visible light to near infrared
- Fast optical pulse detection
- Various industrial control systems

E/O Characteristics:

Parameter		Symbol Number	Test Condition	Typical Value												Unit
Photosensitive surface size				Φ0.2	Φ0.5	Φ1	Φ2	Φ4	Φ5	Φ8	0.5X0.5	1X1	1.3X1.3	2X2	3X3	mm
Optical Parameters	Spectral Response Range	λ		400~1100												nm
	Responsibility	Re	VR=15V, λ=900nm	0.40	0.45	0.5	0.5	0.5	0.5	0.55	0.45	0.45	0.45	0.5	0.5	A/W
	Response Time	tr	VR=15V, RL=50Ω	2	5	6	8	15	15	25	3.5	5	8	10	15	ns
Electrical Parameter	Dark Current	ID	VR=15V	1	2	3	5	12	40	60	3	3	4	6	10	nA
	Breakdown Reverse Voltage	VB	IR=10μA	100							50	80				V
	Electric Capacity	Cj	f=1MHz, VR=15V	0.8	1.2	2.0	6	20	30	70	6.0	3	3	10	25	pF
Operating Voltage		VR		0~15												V
Tube Socket Model				Coaxial type II, 5501, TO46, plug-in, with pigtail			TO-5	TO-8			Coaxial type II, 5501, TO46, plug-in, T05			TO-5		
Saturated optical power 0.3w/cm^2																

* The size and technical index of the photosensitive surface of the product can be determined according to the customers' requirements; Please refer to the attached table for specific parameters.

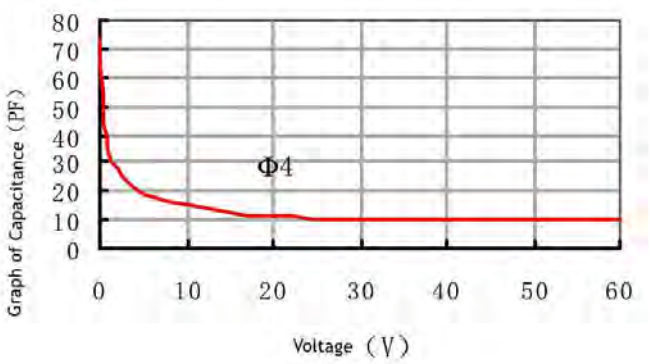


Fig. 1 Graph of Capacitance and Voltage

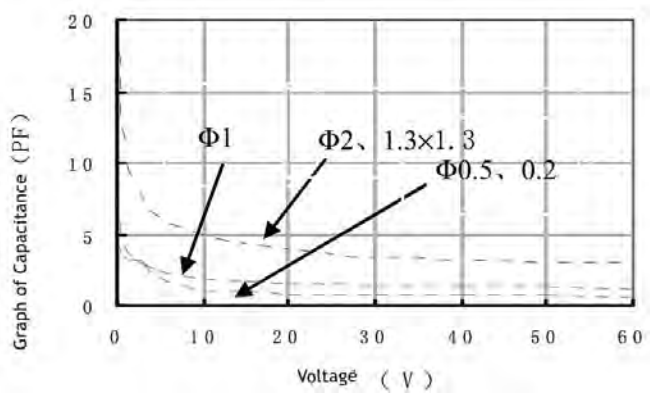
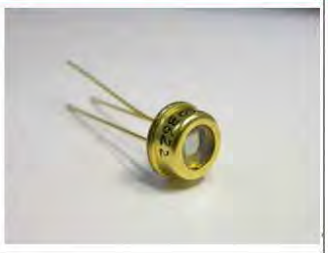
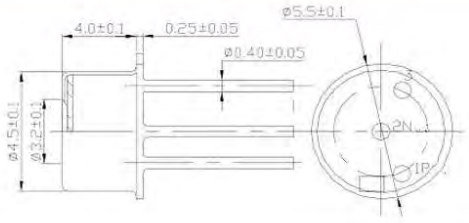
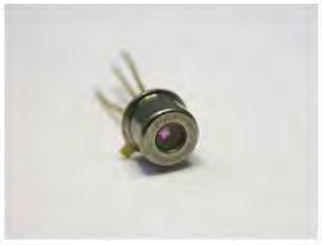
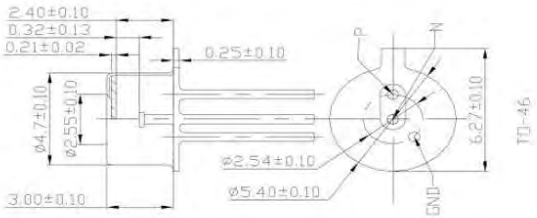
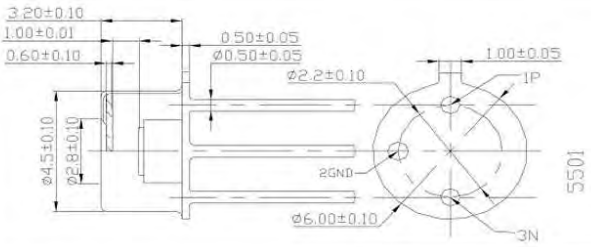
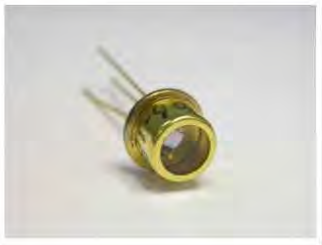
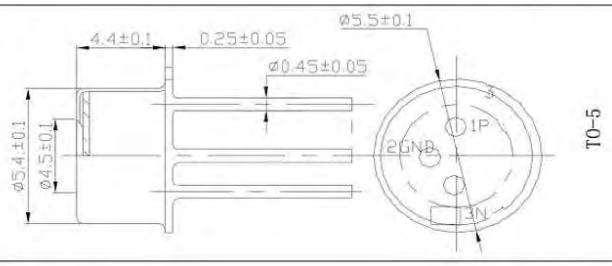


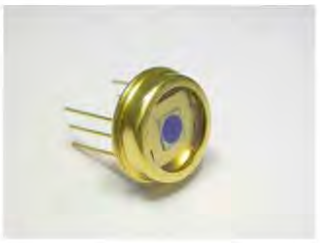
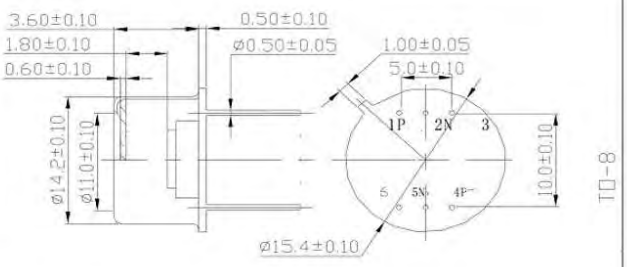
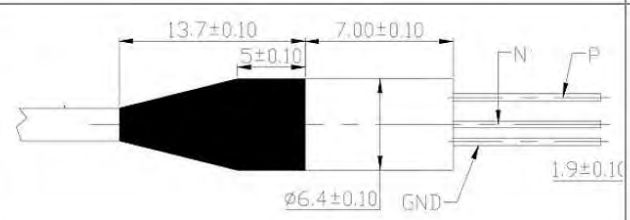
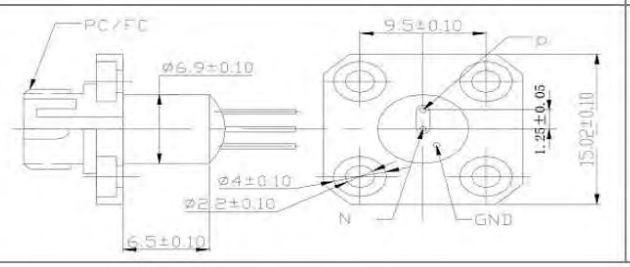
Fig. 2 Graph of Capacitance and Voltage



Fig. 3 Spectral Response Curve

Dimensions and Pin definitions:

Package Picture	Size Information	Ordering Code
		C-II
		TO46
		5501
		TO5A

		TO8
		FC-SA
		ADP

Caution

- The device works under reverse bias voltage. Pay attention to that the polarity of the device cannot be reversed.
- The bending degree of optical fiber cannot be less than 45 degrees.
- Pay attention to electrostatic protection measures during storage, transportation and use of devices.

Ordering Info:

Company code	Detector Material	Photosensitive surface Size	Package
MP	-SI	02-0.2mm	C-II
		05-0.5mm	TO46
		2-2mm	5501
		4-4mm	TO5A
		5-5mm	TO5B
		8-8mm	TO8
		S1-1X1mm	FC-SA
		S2-2X2mm	ADP
		S3-3X3mm	