

Si Photodetector (GT101)



Features:

- High responsivity
- High speed
- Low dark current
- Low capacitance
- Flat window

Applications:

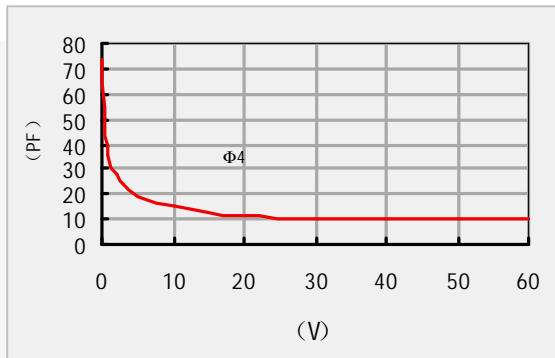
- Optical communications
- Ranging
- Industry automatic control system
- Optical power meter

Product Specifications (Ta=23°C)

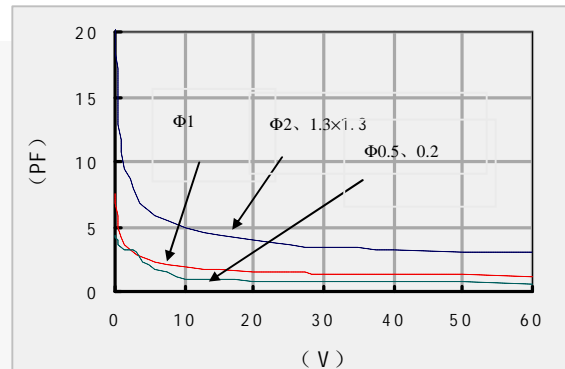
Parameter	Symbol	Test conditions	Value								Unit
			φ0.5	φ1	φ2	φ4	φ5	φ8	1x1	3x3	
Active area			φ0.5	φ1	φ2	φ4	φ5	φ8	1x1	3x3	mm
Spectral range	λ		400~1100								nm
Responsivity	Re	VR=15V $\lambda=900\text{nm}$	0.45	0.5	0.5	0.5	0.5	0.55	0.45	0.5	A/W
Responsetime	tr	VR=15V RL=50Ω	5	6	8	15	15	25	5	15	nS
Dark current	Id	VR=15V	2	3	5	12	40	60	3	10	nA
Reverse voltage	VBR	IR=10μA	100				80				v
Junction capacitance	Cj	f=1MHz VR=15V	1.2	2	6	20	30	70	3	25	pF
Operating voltage	VR		0~15								V
Package			Coaxial type II, TO46,5501, Receptacl, Pigtail	TO-5	TO-8			5501	TO-5		
Saturated Optical Power ≤ 0.3w/cm ²											

The active area's size and specifications can be changed by client's requirements.

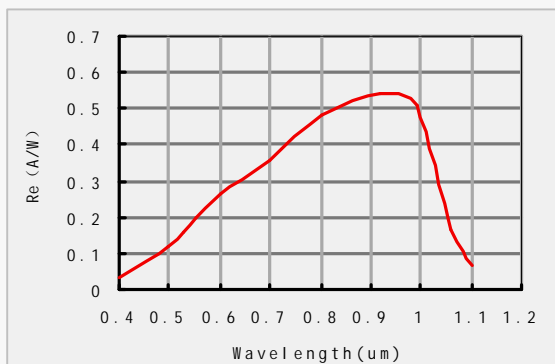
Characteristic curve



F-V Curve

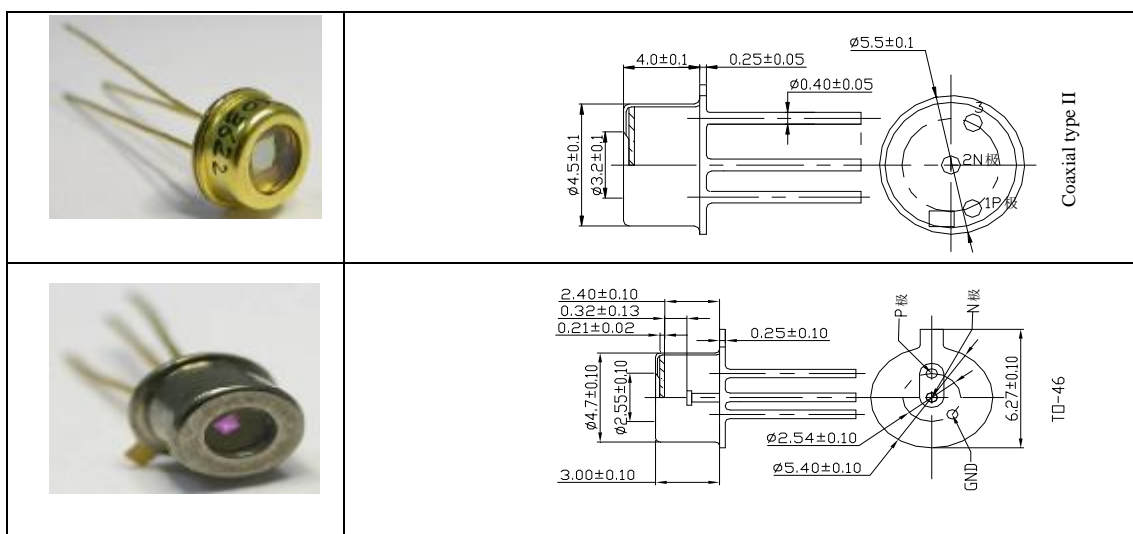


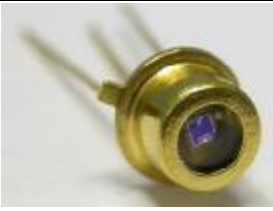
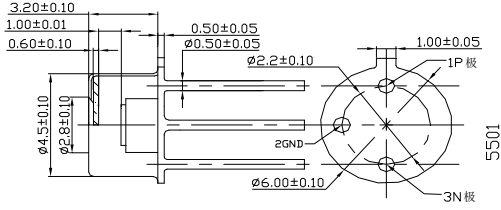

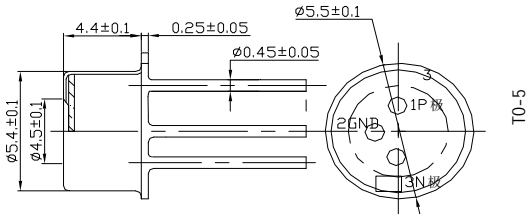
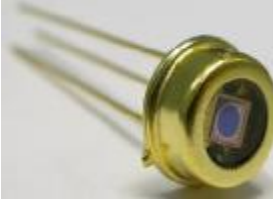
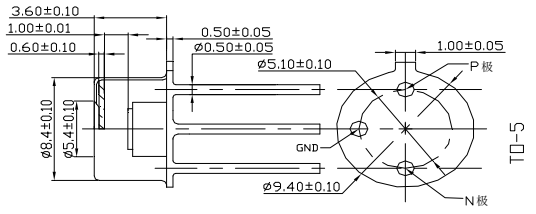
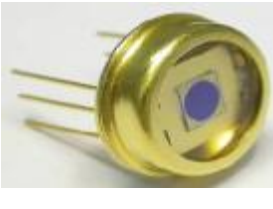
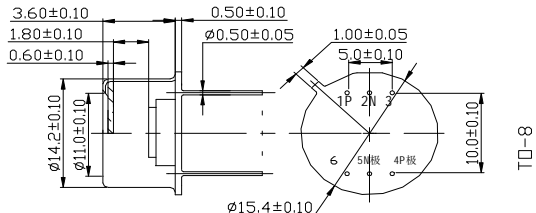

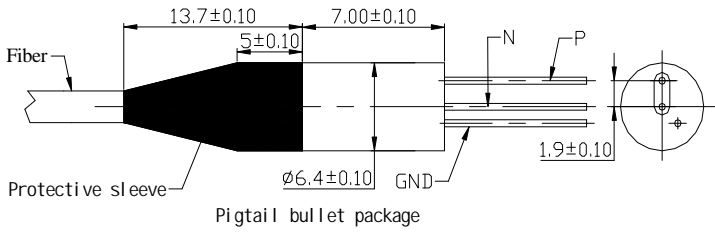
F-V Curve



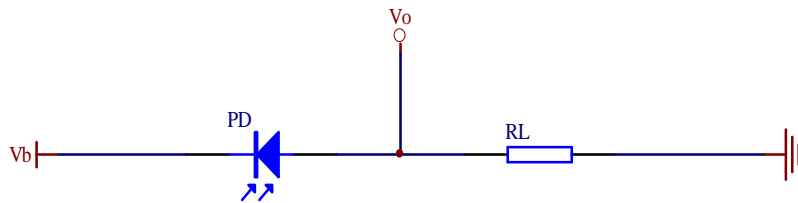
Spectral response curve

Structure



The Diagram



Precaution:

(1) The modules should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.

(2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.

(3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.