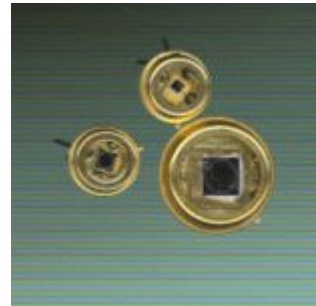


Si PIN Photo Diode IP-Si 102 Series

Characteristics:

Planar Front Side Structure
 Fast Response Speed
 Low Dark Current
 High Responsivity
 High Reliability



Applications:

Distance Measure
 Process Control
 Detection in visible and near infrared Fast Optical Pulse detection

Device Mechanism

Works under reverse bias, When light strikes the sensitive area of the device, a pair of electron and hole will appear, the carrier go through the depletion under bias, the optical current appear in circuit. The 4 PD in the device can be used individually, and also can be used together.

Technical Parameter(TA=23°C)

Parameter	Symbol	Test Conditions	Typical					Unit	
			0.2	0.5	1.0	2.0	4.0		
Active Area	Φ		0.2	0.5	1.0	2.0	4.0	mm	
Optical Parameter	Spectrum Response Range	λ	400~1100					nm	
	Responsivity	R_e	$V_R=40V$ $\lambda=1060nm$	0.20	0.20	0.20	0.23	0.23	A/W
	Response time	t_r	$V_R=40V$ $R_L=50\Omega$	2	5	6		12	nS
Electrical Parameter	Dark Current	I_D	$V_R=40V$	1	5	7	10	40	nA
	Reverse Break Down Voltage	V_{BR}	$I_R=10\mu A$	80	100	80	100	100	V
	Capacitance	C_j	$f=1MHz$ $V_R=40V$	0.5	0.7	1.2	4.5	12	pF
Operating Voltage	V_R		40					V	
Package			T0-5	T0-5	T0-5	T0-5	T0-8		
Saturation Power $\leq 0.3w/cm^2$									

Typical Operating Characteristics

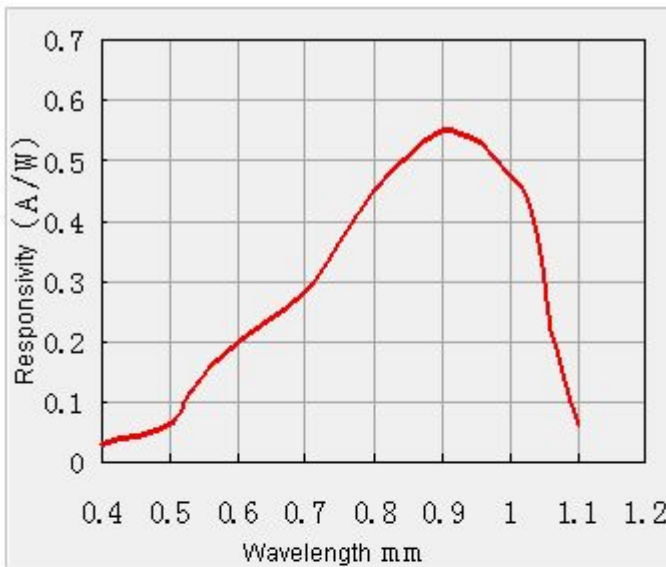


Fig.1 Spectrum Response Curve

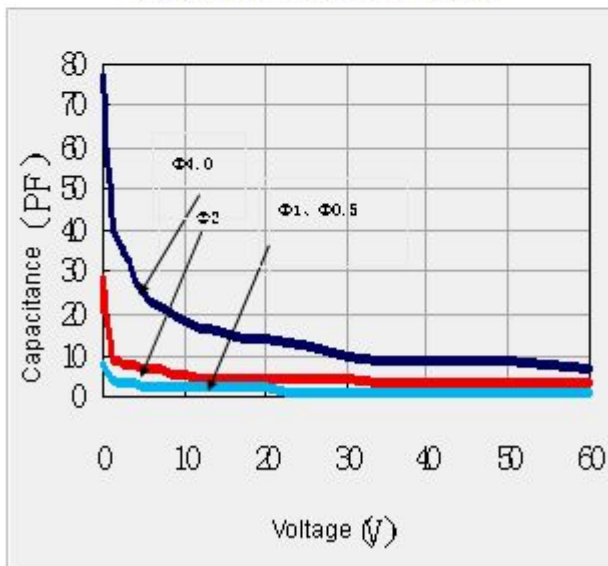
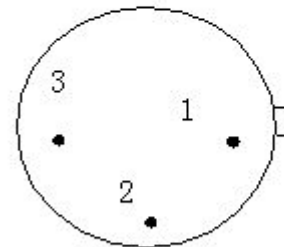
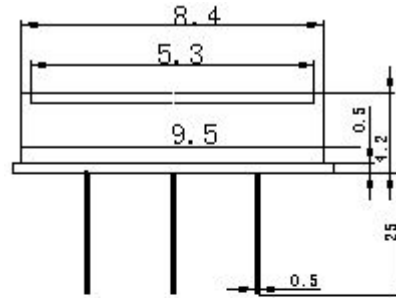
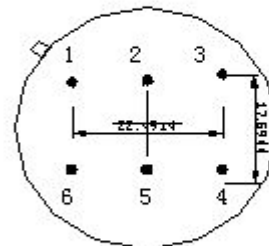
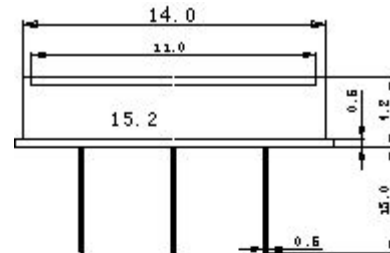


Fig. 2 C-V Curve

Pin Configuration (Back Side View)



TO-5



TO-8



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Note and Usage Instruction

Reverse Bias

No Vibration and shock when device operating

Static Charge Protection (Storage, Operating)