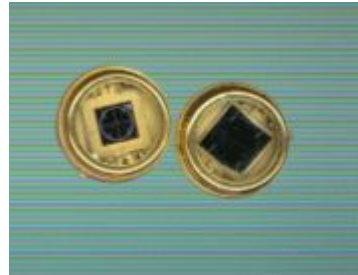


## Quadrature Si PIN Photo Diode IP-Si 111、 112

### Characteristics:

- Low dark current.
- High uniformity and symmetry.
- High reliability.
- Less blind area.



### Applications:

- Laser aiming, tracking and searching.
- High accuracy location, displacement monitoring .

### Mechanism:

The device works like reveIPE biased diode array, since the device is configured as quadrature, when the light form the tested object strike equally upon each quadrant, the light current from quadrants should be equal. When the tested object changed position, the output of each quadrant will change. So the direction of the target can determined.

### Technical Parameter(TA=23°C)

Parameter		Symbol	Test Conditions	Typical		Unit
Active Area		$\Phi$		GT111	GT112	$\mu m$
Optical Parameter	Spectrum Response Range	$\lambda$		0.4-1.1		
	Responsivity	$R_e$	$V_k=40V$ $\lambda =1060nm$ $V_k=40V$ $\lambda =900nm$	0.2 0.45	0.2 0.45	A/W
	Response Time	$t_r$	$V_k=40V$	6	8	
Electrical Parameter	Dark Current	$I_D$	$V_k=40V$	10	10	
	Reverse Break Down Voltage	$V_{BR}$	$I_k=10 \mu A$	80	80	
	Capacitance	$C_j$	$f=1MHz$ $V_k=40V$	5	8	
Operating Voltage		$V_k$		40		V
Package				T0-8		

## Typical Operating Characteristics

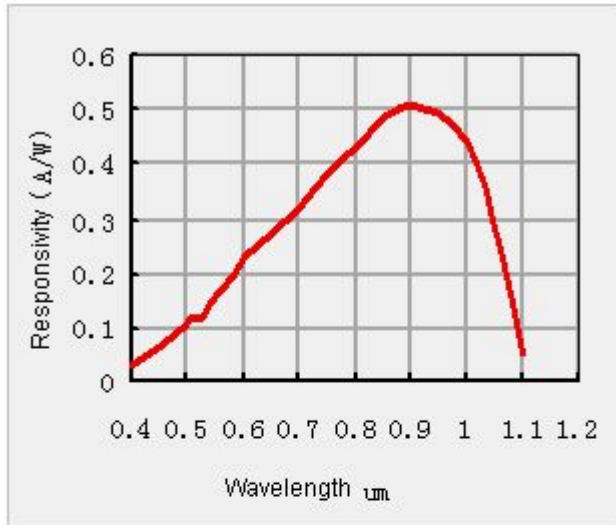


Fig. 1 Spectrum response curve

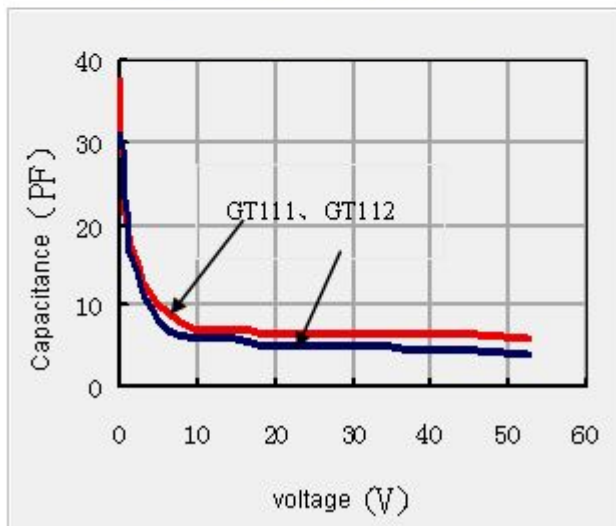
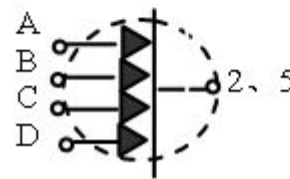
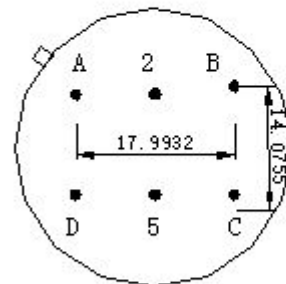
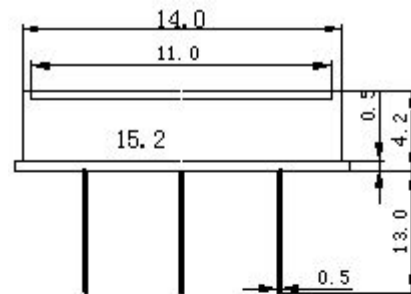


Fig. 2 Capacitance VS. voltage

## Package Size and Application Method (Back side View)



TO-8

### Note:

Reverse bias ; No vibration and shock when device operating ; Static charge protection (storage, operating)