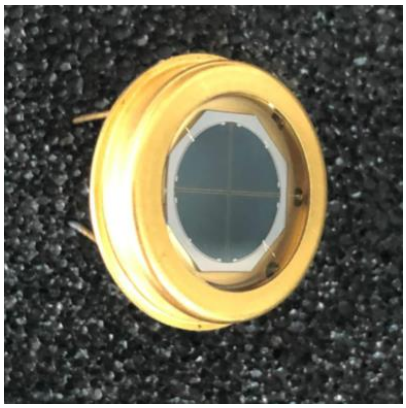
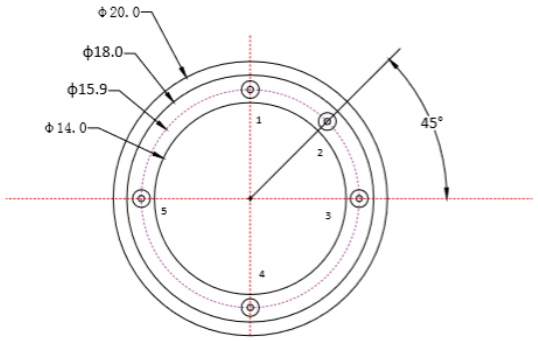
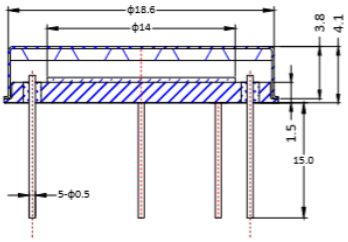
OSQ10-YT

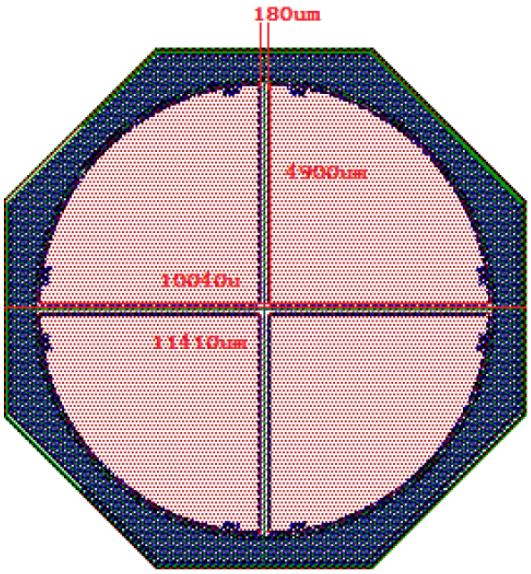
SILCON QUADRANT PHOTODIODE







PIN2: Cathode PIN1,3,4,5:Anode 1~4



NOTES:

All dimension are in millimeters.

Description

Φ10mm active area, low dark current quadrant photodiode
With P on N construction and 180um gaps.

It's optimized for high response at 1060nm.

Features

* Small gap (180um)
* Low dark current
* High QE at 1064nm
* Operating temperature is from -40 to +80℃
* Storage temperature is from -40 to +100℃
* soldering temperature is 260℃ @Max.5 seconds
  at the position of 2mm from the PIN legs.

General Ratings

* Type Silicon Photodiode
* Chip active area:ϕ10mm dia.
* High linearity * Low dark current

Applications

* 1064nm Laser Detector * Laser guidance
* Laser alignment * Spot position detection

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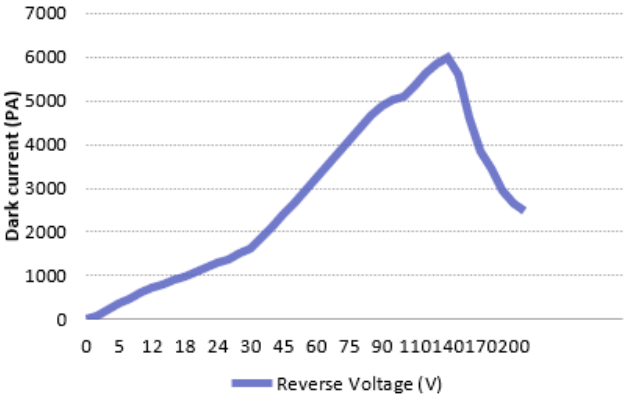
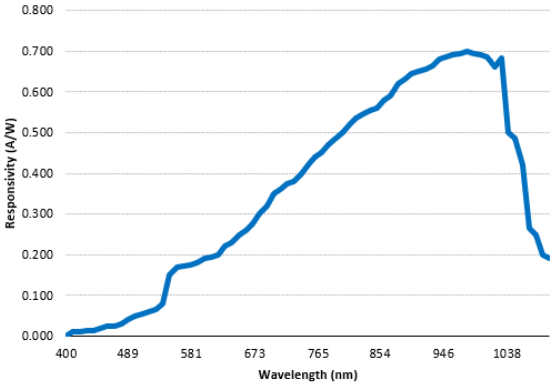
Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Number of elements				4		
Active area (diamater)				Φ10		mm
Gap		Between elements		180		um
Spectral range			400		1100	nm
Photo sensitivity	S_R	1064nm, V=150V		0.45	0.48	A/W
Dark current	I_D	V_R=160V		4.61		nA
		V_R=200V		2.67	5	
Rise time	t_R	V_R=10V; λ =1064m;R_L=50Ω		10	12	ns
Temp coefficient of Ubias	T_{CID}			0.8		V/℃
Reverse breakdown voltage	$V_{(BR)R}$	I_R=10μA Ev=0lx	160	260	400	V
Junction Capacitance	C_J	V_R=0V f=1MHz		175		pF
		V_R=10V f=1MHz		12		
		V_R=50V, R_L=50Ω		6.5	8	
Uniformity of each Element	%		0.8		2	%
Crosstalk		V_R=10V; λ =1064m;R_L=50Ω			5	%

■Dark current vs. reverse voltage



■ Spectral response



■Relative Junction Capacitance VS. Voltage