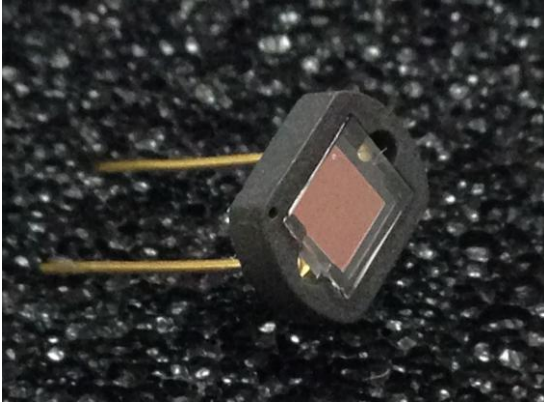


## Selective wavelength photodiode

### OSD9-RC

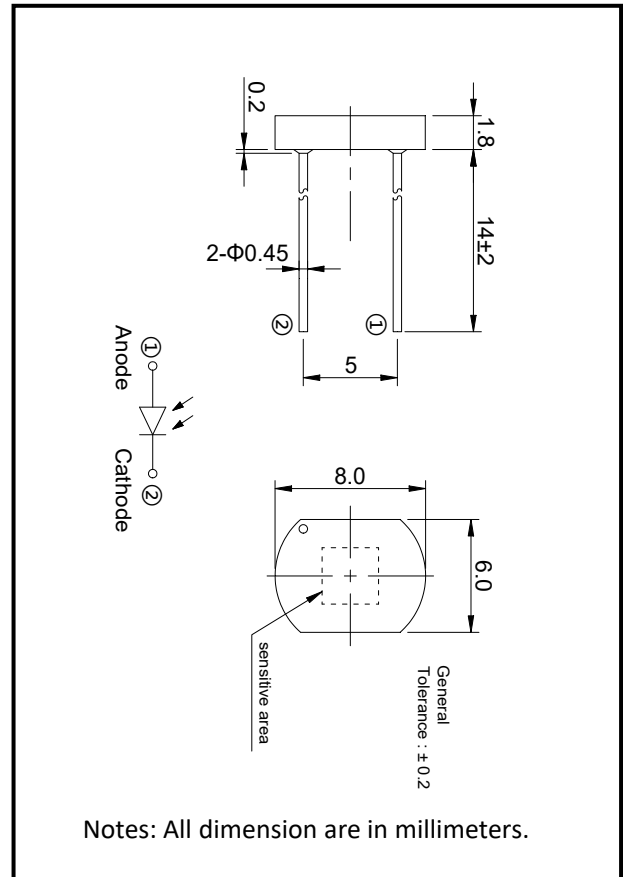


## Description

The OSD9-RC is **Red** light response high-output, high-speed silicon photo diode which is mounted in 2PIN ceramic package, permits wide angular response.

## Applications

\*Color sensor \*Laser detect \* Medical equipment

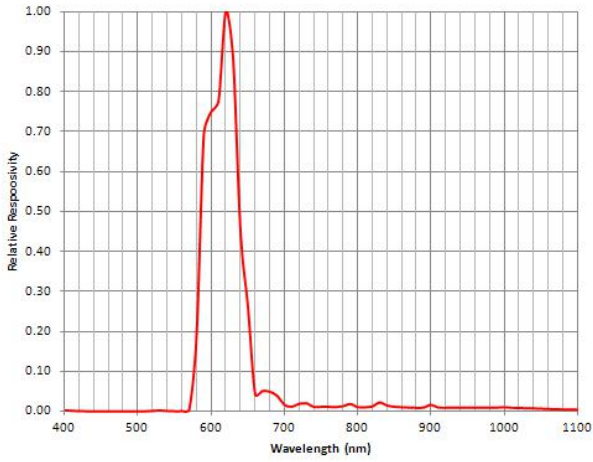


## Absolute Maximum Ratings (Ta=23°C)

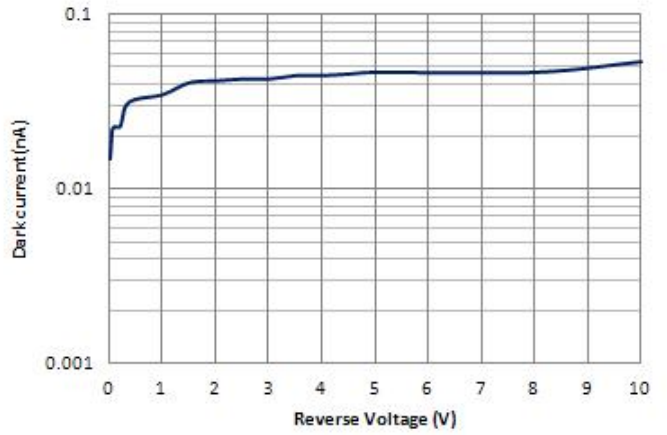


Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	size	-		3.17*3.17		mm <sup>2</sup>
Active area	A	-		2.84*2.84		mm <sup>2</sup>
Dark current	I <sub>D</sub>	V <sub>R</sub> =10mV		23		pA
		V <sub>R</sub> =10V		54		
Rise time	t <sub>R</sub>	V <sub>R</sub> =0V; λ =635nm;R <sub>L</sub> =50Ω		1450		ns
Tempcoeffi-cient of I <sub>D</sub>	T <sub>CID</sub>			0.18		times/°C
Reverse breakdown voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =100uA E <sub>v</sub> =0mw/cm <sup>2</sup>	33			V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V f=1MHz E <sub>e</sub> =0mW/cm <sup>2</sup>		79		pF
		V <sub>R</sub> =5V f=1MHz E <sub>e</sub> =0mW/cm <sup>2</sup>		23		
Photo sensitivity	S <sub>R</sub>	635nm		0.45		A/W
Spectral Application Range	λ range		570		700	nm
Spectral Response-Peak	λ <sub>p</sub>			635		nm
Shunt resistance	R <sub>sh</sub>	V <sub>R</sub> =10mV		0.4		GΩ
Angular Resp 50% Resp Pt	θ <sup>1/2</sup>			±20		Degrees

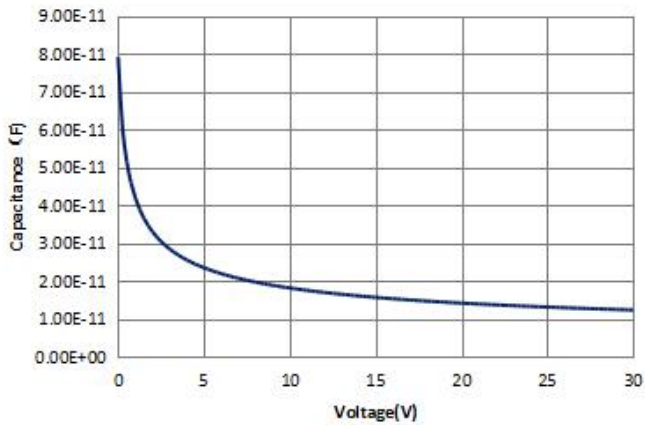
**SPECTRAL RESPONSE (Ta=23°C)**



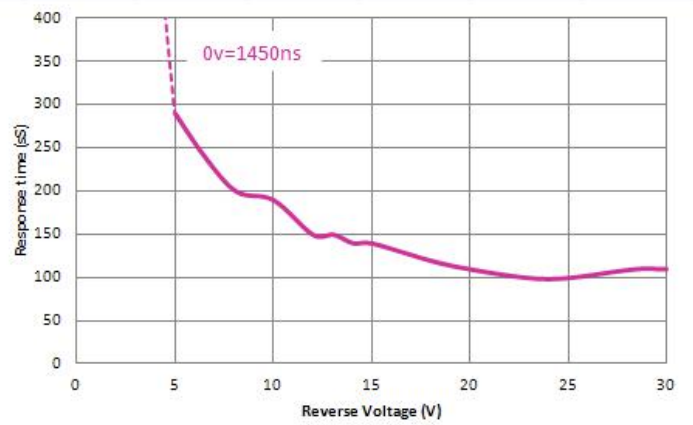
**DARK CURRENT VS. REVERSE VOLTAGE(Ta=23°C)**



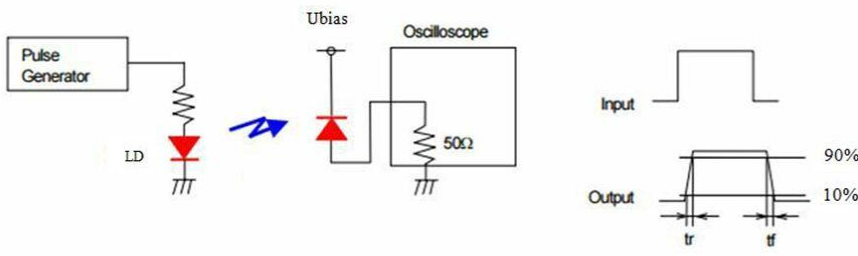
**CAPACITANCE VS. REVERSE VOLTAGE (Ta=23°C)**



**RISE TIME \*VS. REVERSE VOLTAGE (Ta=23°C)**



\* Measure circuit:



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice.