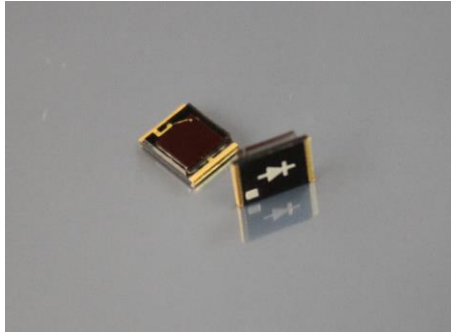


Selective wavelength photodiode: red



Description

The OSD9-RM is device as red light, narrow wavelength optical filter is applied photodiode in COB package, It can get fast response output of high-sensitivity, This device is ideal for applications such as colorimeters, display color correction, and selectively ambient light detection or rejection.

Features

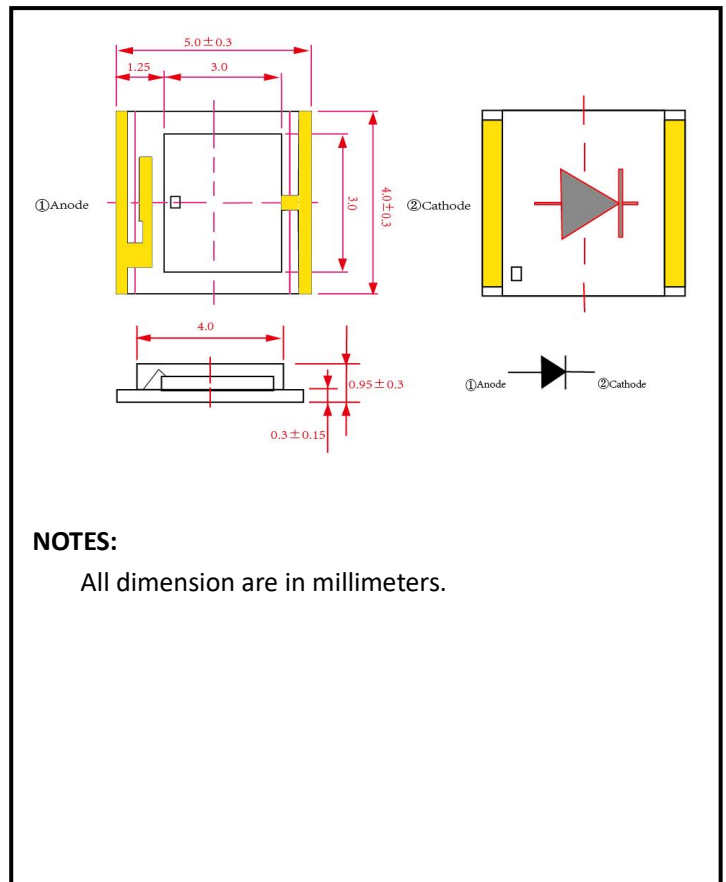
- * color filter in red chip
- * high sensitivity
- * no optical filter used
- * Low dark current
- * Operating temperature is from -40 to $+80^{\circ}\text{C}$
- * Storage temperature is from -40 to $+100^{\circ}\text{C}$
- * soldering temperature is 260°C @Max.5 seconds at the position of 2mm from the PIN leg.

General Ratings

- * peak wavelength: 620nm
- * spectrum bandwidth 80nm
- * Chip active area: 9mm^2
- * High linearity

Applications

- * color identification
- * white balance adjustment
- * light source color temperature detection



NOTES:

All dimension are in millimeters.

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

OTRON ELECTRONIC TECHNOLOGY CO., LTD

TEL:+86-21-54971821

FAX:+86-21-54971823

EMAL:frank.shuai@e-otron.com

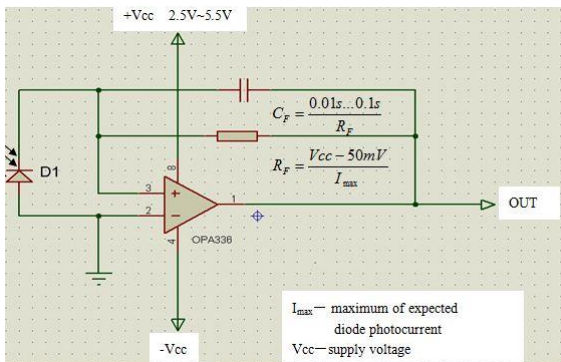
[Http://www.e-otron.com](http://www.e-otron.com)

Absolute Maximum Ratings (Ta=25 °C)

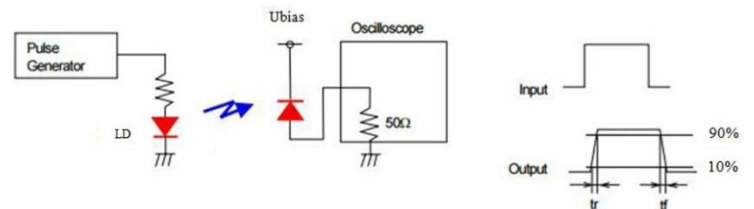
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Dark current	I _D	V _R =10mV		20		pA
		V _R =10V		680		
Rise time	t _R	V _R =5V;λ=850nm;R _L =50Ω		0.1	1	μs
Tempcoeffi-ent of I _D	T _{CID}			0.18		times/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =100μA E _v =0lx		35		V
Junction Capacitance	C _J	V _R =0V f=1MHz		513		pF
Photo sensitivity	S _R	635nm		0.45		A/W
Spectral Application Range	λ _{range}		590		720	nm
Spectral Response-Peak	λ _p			635		nm
Rsh Temperature Coefficient	TC Rsh			0.18		%/°C
Angular Resp 50% Resp Pt	θ _{1/2}			±55		Degrees
Noise Equivalent Power	NEP	V _R =10V λ=900nm		8.68×10 ⁻¹⁴		W/Hz ^{1/2}
Specific Detectivity	D*	V _R =10V λ=900nm		3.46×10 ¹²		cm(Hz/W) ^{1/2}

* Ev: Illuminance by CIE standard light source A (tungsten lamp)

Typical application circuit

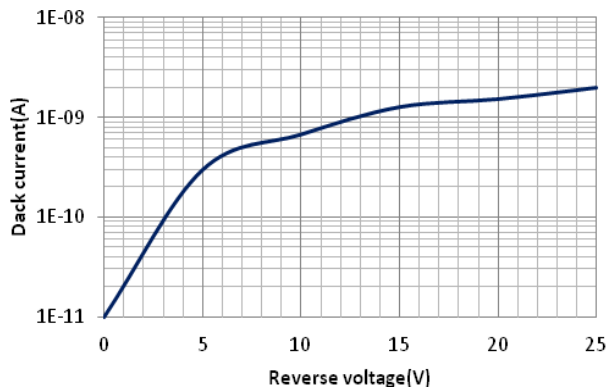


** Response time measurement circuit:

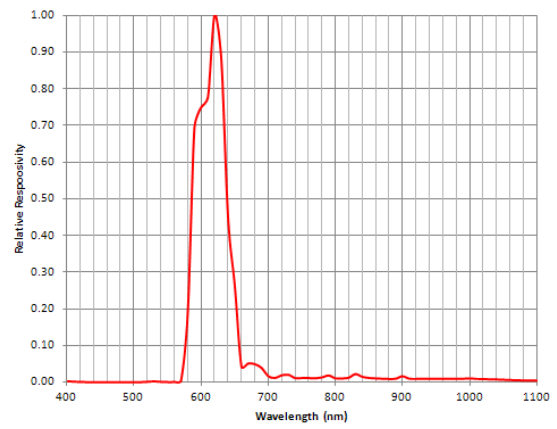


Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

■ Dark current vs. reverse voltage

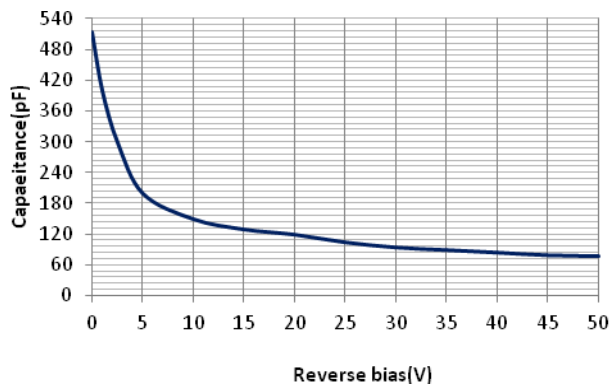


■ Spectral response



■ Relative Junction Capacitance

VS. Voltage



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

OTRON ELECTRONIC TECHNOLOGY CO., LTD

TEL:+86-21-54971821

FAX:+86-21-54971823

EMAL:frank.shuai@e-otron.com

[Http://www.e-otron.com](http://www.e-otron.com)