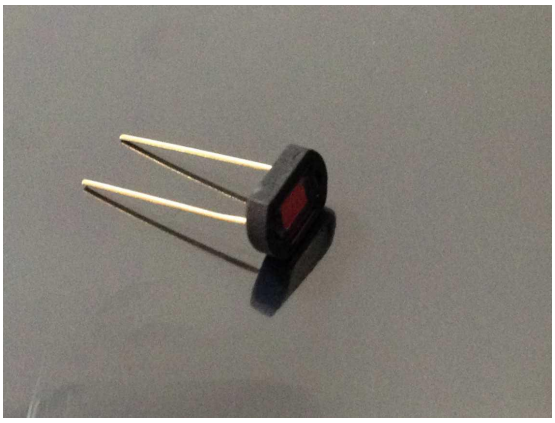
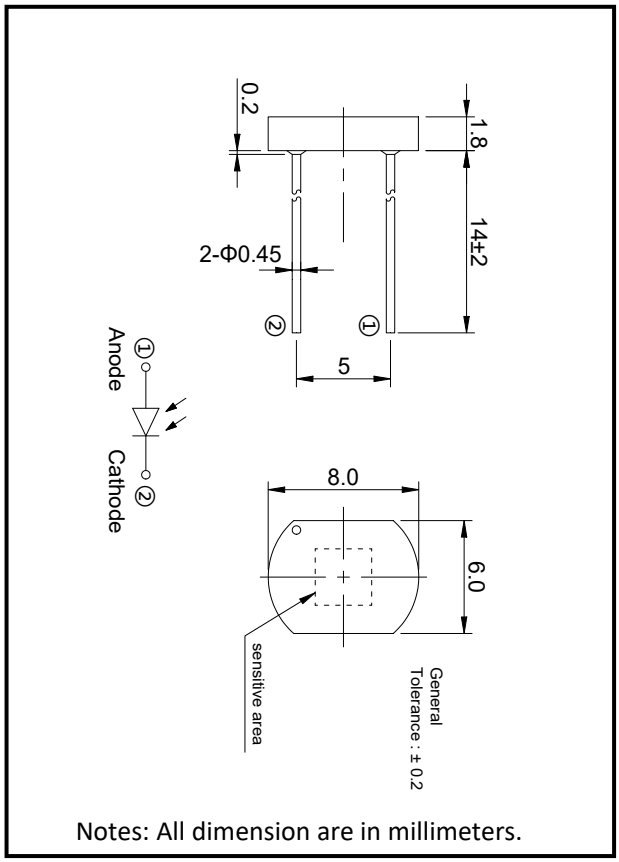
Human eye response photo diode

OSD9-EC





Notes: All dimension are in millimeters.

Description

The OSD9-EC is human eye 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 *luminometer

Absolute Maximum Ratings (Ta=23℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	size	-		3.17*3.17		mm^2
Active area	A	-		2.84*2.84		mm^2
Dark current	I_D	V_R=10mV		28		pA
		V_R=10V		59		
Rise time	t_R	V_R=0V; λ =530nm;R_L=50Ω		1450		ns
Tempcoeffi-cient of I_D	T_{CID}			0.18		times/℃
Reverse breakdown voltage	$V_{(BR)R}$	I_R=100uA Ev=0mw/cm2	33			V
Junction Capacitance	C_J	V_R=0V f=1MHz Ee=0mW/cm2		18		pF
		V_R=5V f=1MHz Ee=0mW/cm2		12		
Photo sensitivity	S_R	550nm		0.45		A/W
Spectral Application Range	λ range		350		700	nm
Spectral Response-Peak	λ p			550		nm
Shunt resistance	R_{sh}	V_R=10mV		0.35		GΩ
Angular Resp 50% Resp Pt	$\theta^{1/2}$			±20		Degrees

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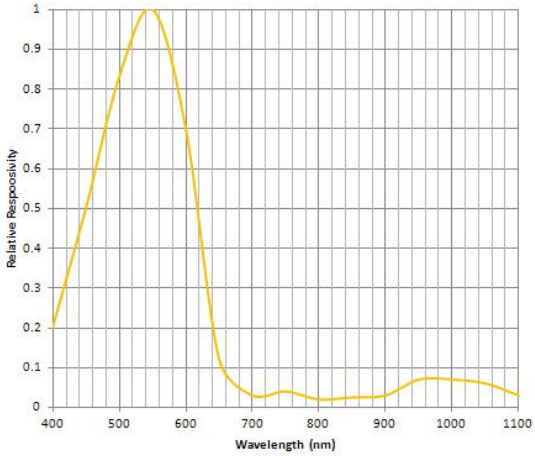
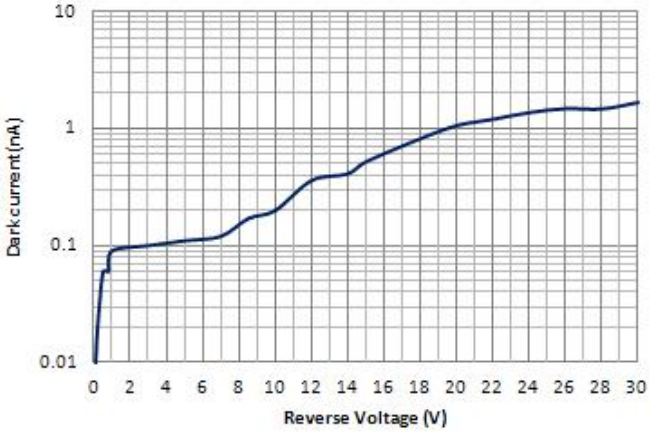
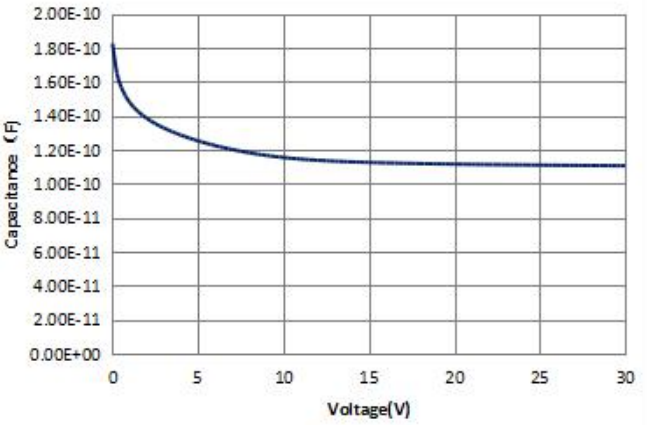
SPECTRAL RESPONSE (Ta=23℃)



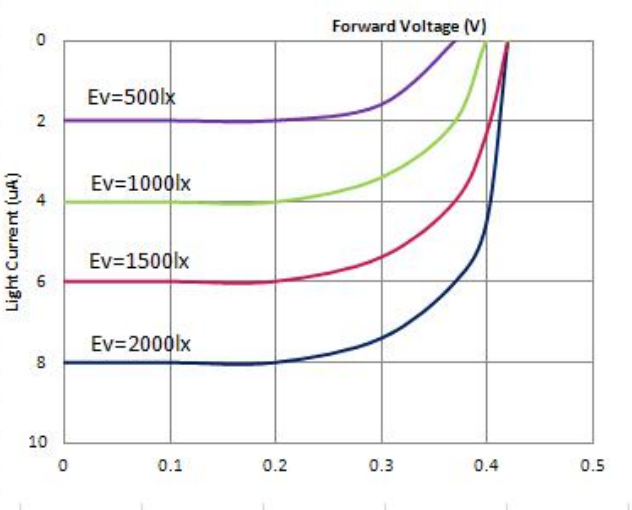
DARK CURRENT VS. REVERSE VOLTAGE(Ta=23℃)



CAPACITANCE VS. REVERSE VOLTAGE (Ta=23℃)



I-V Curve illumination (Ta=23℃)



TEMPERATURE VS. DARK CURRENT (Ta=23℃)