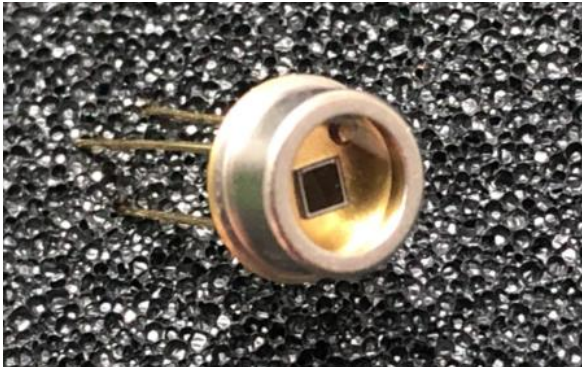


Wavelength sensor

WS5.29T



Description

The WS5.29T wavelength sensor has two PN junctions constructed vertically on a common silicon substrate. The upper diode has enhanced blue and the lower enhanced Red response.

Features

- * 5.29mm² wavelength sensitive detector
- * Two stacked PN junctions
- * High reliability in demanding environments
- * Operating temperature is from -40 to +80°C
- * Storage temperature is from -40 to +100°C

Applications

- * LED sorting
- * Precision photometry
- * Optical measurement equipment, color matching
- * Wavelength determination for monochromatic light

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

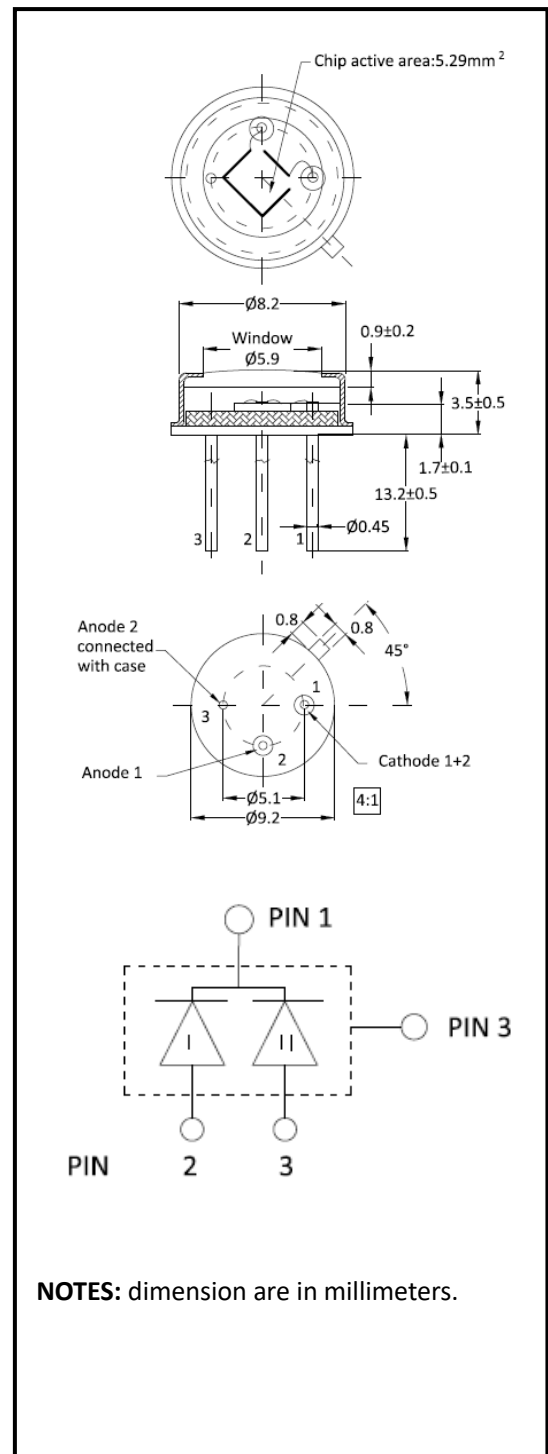
OTRON ELECTRONIC TECHNOLOGY CO., LTD.

TEL:+86-21-54971821

FAX:+86-21-54971823

EMAIL: otron.sensor@gmail.com

<http://www.e-otron.com>

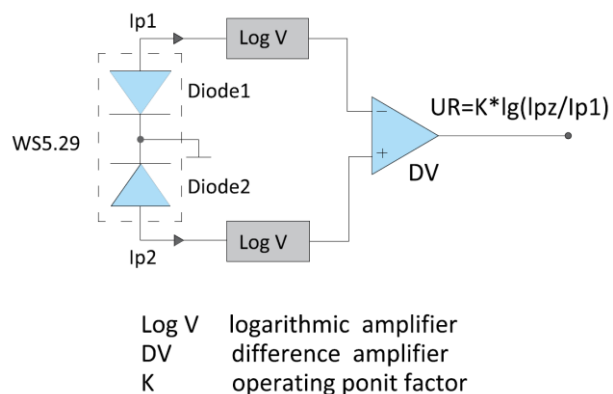
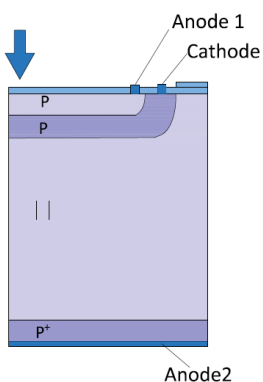


Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Chip size	Size		5.29			mm ²
Active area	A		2.31*2.31			mm ²
Operation range	λ		450		900	nm
Peak wavelength	λ_{top}			560		nm
	λ_{bottom}			870		nm
Spectral resolution		2856k		0.01		nm
Saturation level		VR=5V			3	mw
Dark current	$I_{D top}$	VR=5V		0.06		nA
	$I_{D bottom}$	VR=5V		0.48		
Rise time	t_r	$V_R=0V; \lambda=560nm; R_L=50\Omega$		8		us
		$V_R=0V; \lambda=870nm; R_L=50\Omega$		1		us
Temp coefficient of Quotient Q	T_{CID}	$V_R=0V; \lambda=560nm$		1		nm/k
Reverse breakdown voltage	$V_{(BR) TOP}$	$I_R=2\mu A, E_v=0lx$		5	12	V
	$V_{(BR) Bottom}$	$I_R=2\mu A, E_v=0lx$		40		
Junction Capacitance	C_{top}	$V_R=0V, f=1MHz$		677		pF
	C_{bottom}	$V_R=0V, f=1MHz$		59		
Shunt resistance	R_{stop}	$V_R=10mV$		0.5		G Ω
	$R_{sbottom}$	$V_R=10mV$		0.1		G Ω
Rsh Temperature Coefficient	$TC R_{sh}$	$E_v=100lx, V_R=10mV$		0.18		%/°C
Angular Resp 50% Resp Pt	$\theta_{1/2}$			±35		Degrees

■ Special Characteristics

** Application Circuit:



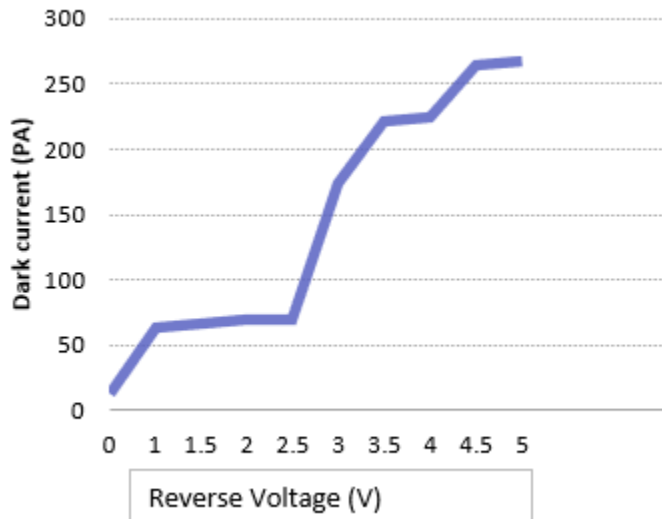
Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

OTRON ELECTRONIC TECHNOLOGY CO., LTD.

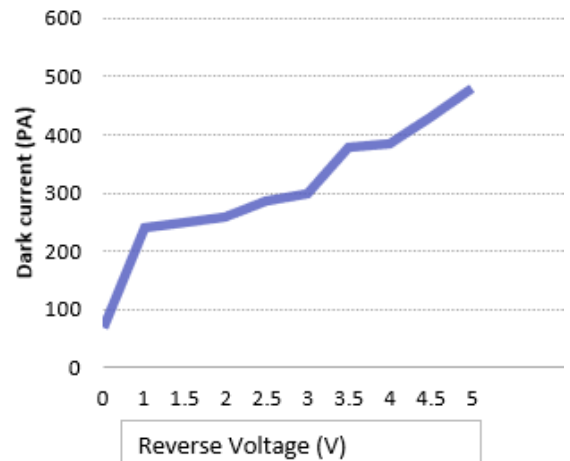
TEL:+86-21-54971821
FAX:+86-21-54971823

EMAIL: otron.sensor@gmail.com
<http://www.e-otron.com>

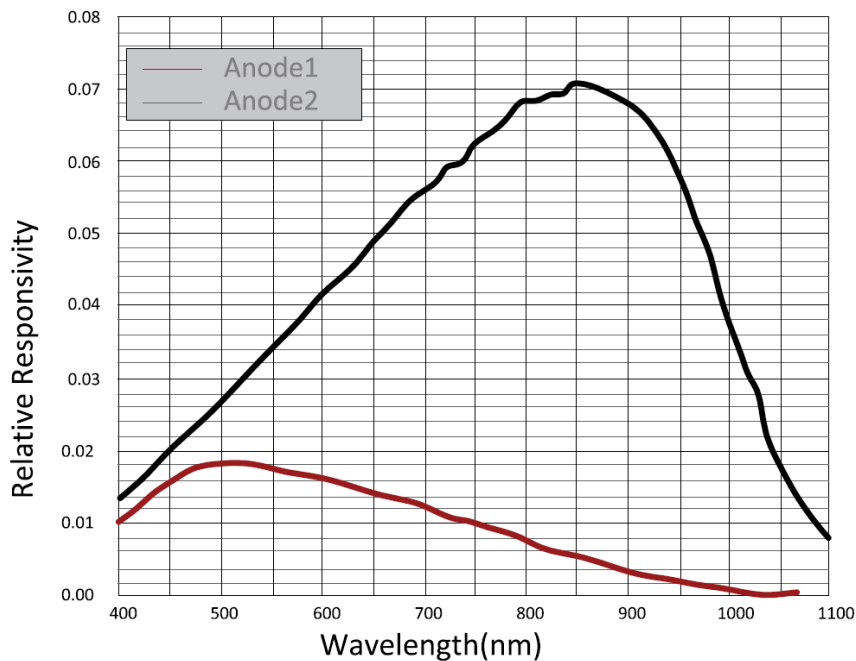
■ Dark current vs. reverse voltage (TOP)



■ Dark current vs. reverse voltage (BOTTOM)



■ Responsivity vs. wavelength



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