

## Dual Sandwich Detector

### OSD29-SST



### Description

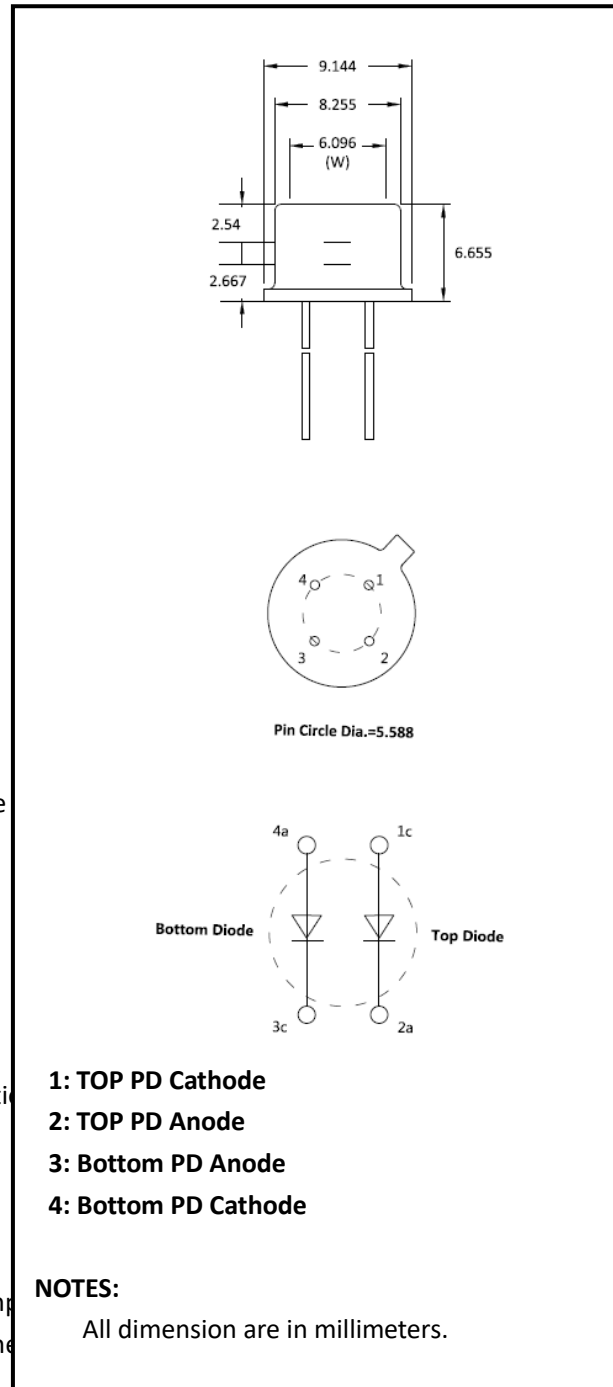
The OSD29-SST device features two silicon PIN photodiodes vertically integrated in a hermetic TO-5 package. The top PD absorbs a portion of the light and the remaining light is transmitted to the bottom photodiode. The current ratio of the two photodiodes is used to remotely determine and monitor the color temperature sensing.

### Features

- \* High reliability in demanding environments
- \* Operating temperature is from -40 to +125°C
- \* Storage temperature is from -55 to +150°C
- \* Soldering temperature is 260°C @Max.5 seconds at the position

### Applications

- \* Dual wavelength power meters
- \* Remote color temperature sensing
- \* IR Thermometers for heat treating, induction heating, and other applications

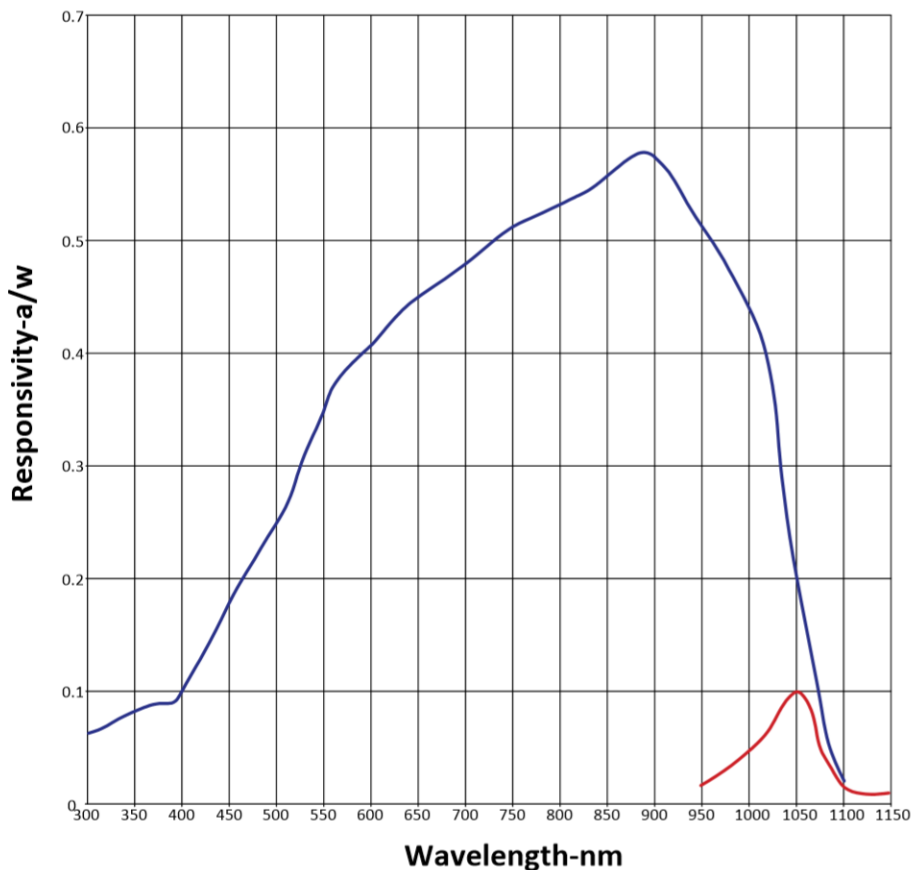


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## Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Active area (Top)	A		2.90*2.90			mm <sup>2</sup>
Active area (Bottom)	A		2.90*2.90			mm <sup>2</sup>
Spectral range of (Top)	$\lambda$		300	-	1100	nm
Spectral range of (Bottom)	$\lambda$		900	-	1100	nm
Shunt resistance	Rsh	Vbias=10mV		200		M $\Omega$
Responsivity(TOP)	R	@940nm		0.60		A/W
Responsivity(Bottom)		@1050nm		0.155		A/W
Peak NEP(Top)		@950nm		12	25	fW $\sqrt{\text{Hz}}$
Peak NEP(Bottom)		@1050nm		45	100	fW $\sqrt{\text{Hz}}$
capacitance	C	0V		290		pF
Response time	T	Top/Bottom PD, 0V, 50 $\Omega$		10/150		us

### ■ Spectral response



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