



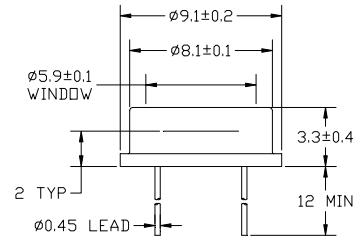
**FEATURES**

- High Blue Sensitivity
- Low Capacitance
- Can be reverse biased.

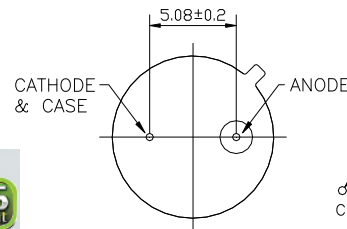
**APPLICATIONS**

- Spectrophotometer
- Analytical Instruments
- Fluorescence

**Package Dimensions in mm**



Note:  
Glass window may extend a maximum of 0.2mm above the upper surface of the cap.



**DESCRIPTION:**

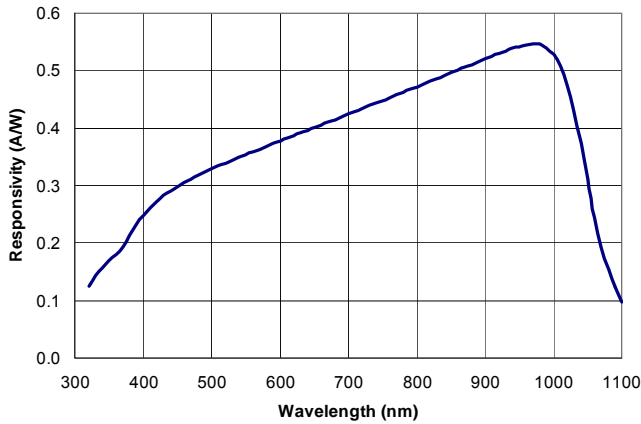
PIN-13DSB provides excellent sensitivity in the blue spectrum and low noise performance for applications with low light intensity. It can be reverse biased up to 20V for lower capacitance, faster response time, and wider dynamic region.

**ELECTRO-OPTICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)**

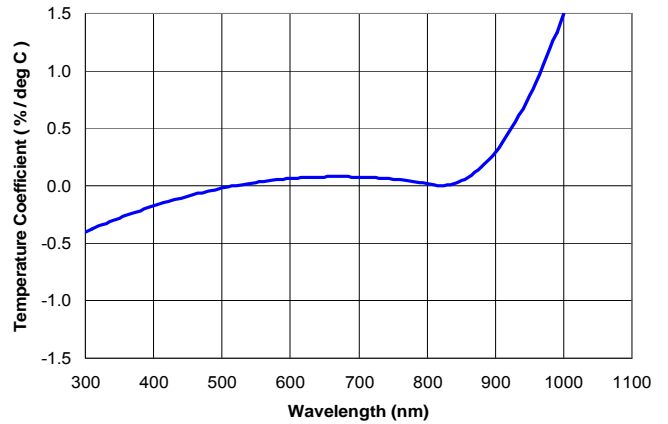
PARAMETER	SYMBOL	CONDITION	MIN	TYP	MAX	UNITS
Active Area Size				3.6 x 3.6		mm
Effective Active Area	AA			13		mm <sup>2</sup>
Spectral Range	S		350		1100	nm
Responsivity	R <sub>λ</sub>	450nm	0.25	0.29		A/W
		633nm		0.4		
		960nm (peak)		0.52		
Shunt Resistance	R <sub>sh</sub>	-10mV	150	1000		M. Ohm
Dark Current	I <sub>d</sub>	-10V		0.3	6	nA
Capacitance	C <sub>t</sub>	0V		220	240	pF
		-10V		40	50	
Rise Time	t <sub>r</sub>	-10V, 50 Ohm		14		ns
Reverse Voltage	V <sub>r</sub>				20	V
Operating Temperature	T <sub>opr</sub>			-40 to +100		°C
Storage Temperature	T <sub>stg</sub>			-55 to +125		°C

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

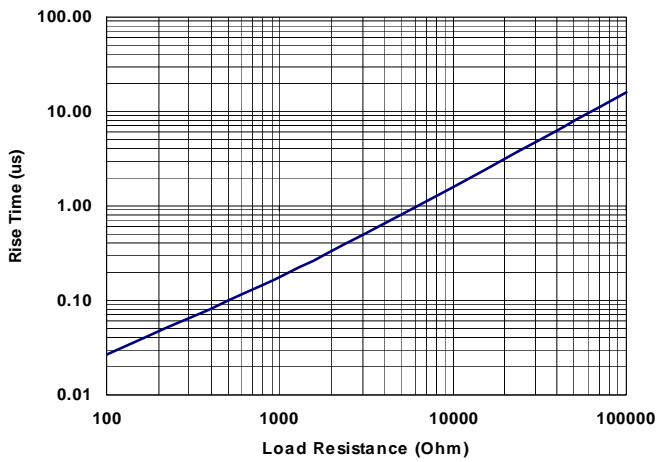
**Typical Responsivity ( $T_A = 25^\circ\text{C}$ )**



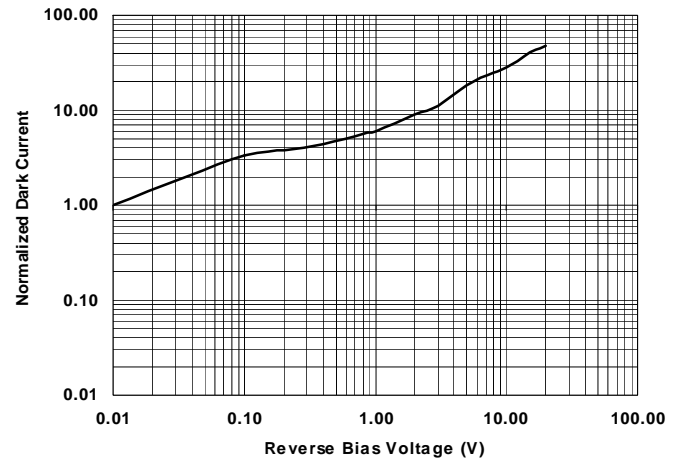
**Typ. Photo-sensitivity temperature characteristic**



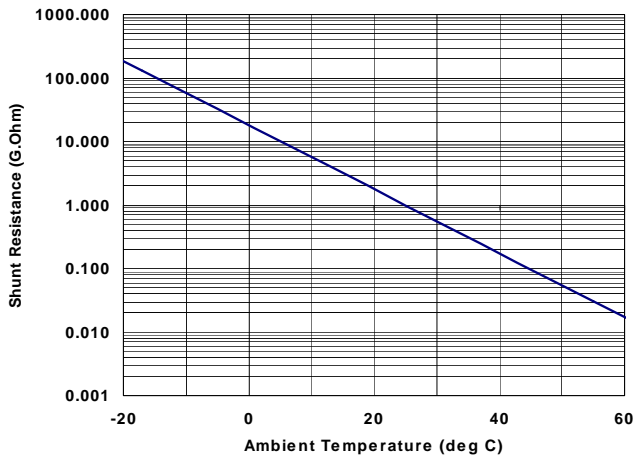
**Typ. Rise Time vs Load Resistance ( $T_A = 25^\circ\text{C}$ ,  $V_r = 10\text{V}$ )**



**Typ. Dark Current ( $T_A = 25^\circ\text{C}$ , Normalized at  $-0.01\text{V}$ )**



**Typ. Shunt Resistance vs Ambient Temperature ( $V_r = 10\text{mV}$ )**



**Typical Capacitance vs Reverse Bias ( $T_A = 25^\circ\text{C}$ )**

