

1.室温硫化铅探测器系列 PbS RT

A-B-C 系列和 AM-BM-CM 密封系列

特性：

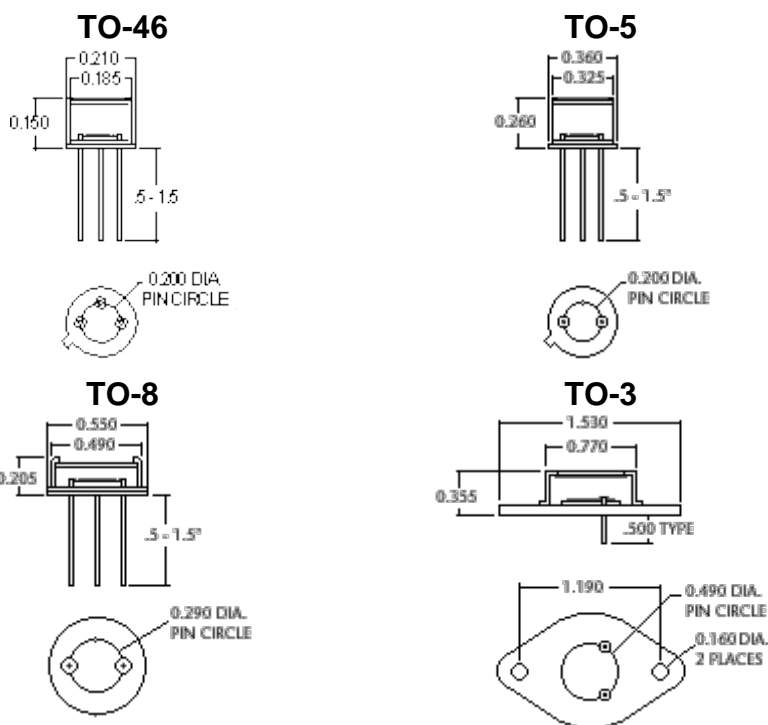
Hermetically Sealed Packages
 Room Temperature Operation
 Custom Wavelength Response
 Custom Test Procedure
 Hybrid Amplifiers
 2 Year Warranty
 Filters Available

电子规格：

Test Conditions at 23°C - Typical	A & AM	B & BM	C & CM
D* (Pk.,600,1) x 10 ¹¹	.5-1.2	.5-1.2	.5-1.2
Peak Wavelength Response - Microns	2.5	2.5	2.2
Time Constant - Microseconds	<100	100-300	>300
Resistance - Megohms	.2-2.0	.2-2.0	.5-10

激活面积规格：

Code Number	Active Area		Bias Voltage	Typical VW-1 Responsivity	Package Size
	Inches	mm	Typical		
.25	.010	.25	10	8-10x10 ⁵	TO-5 & TO-46
.5	.020	.5	20	7-9x10 ⁵	TO-5 & TO-46
1	.040	1	50	5-8x10 ⁵	TO-5 & TO-46
2	.080	2	100	2-6x10 ⁵	TO-5
3	.120	3	150	1-3x10 ⁵	TO-5
5	.200	5	250	.9-2x10 ⁵	TO-8
10	.400	10	500	4-8x10 ⁴	TO-3



如何订购：

Select the proper electrical type (A,BM) and, match it with the proper mechanical and package code number. Example: A- 1, BM-5-8. The active areas listed are considered standard sizes. Special sizes are available upon request. Series C can be gridded for low resistance. Plate cells can be supplied with or without leads.

2.电子制冷硫化铅探测器系列 PbS TEC Cold

D-D2-D21 系列

特性：

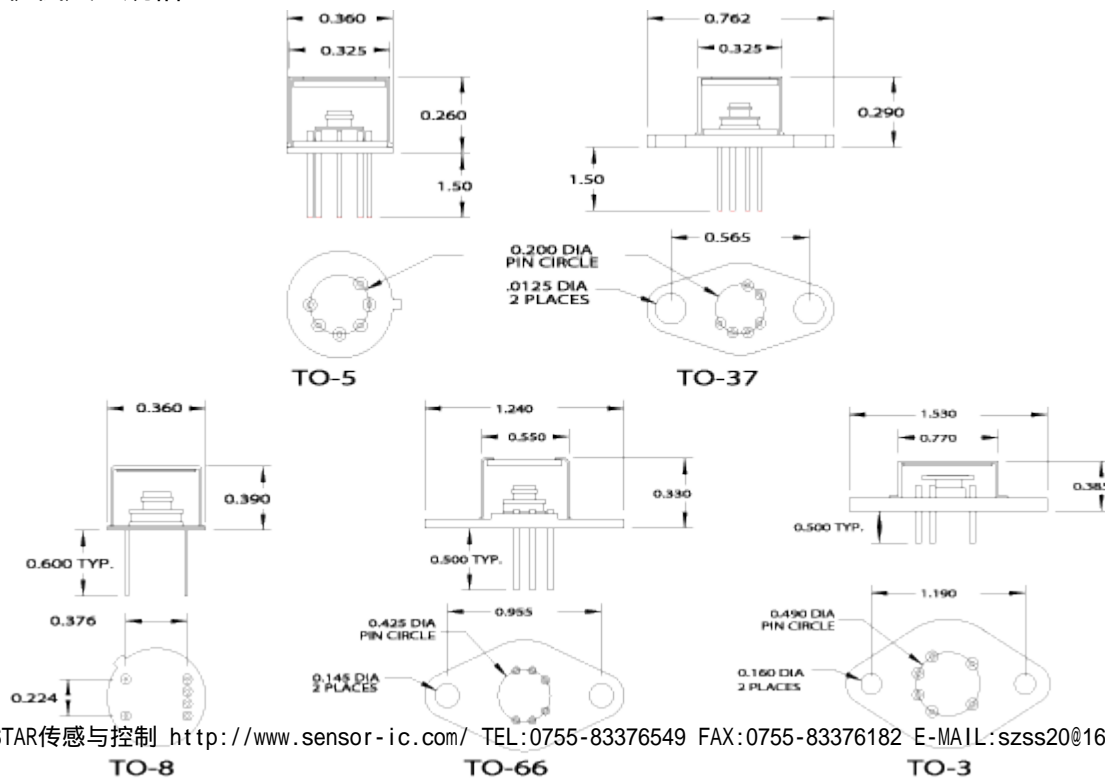
- Hermetically Sealed Packages
- Custom Wavelength Response
- Custom Test Procedure
- Custom Design Services
- 2 Year Warranty
- Filters Available

Test Conditions at 25° C -Typical	D	D2	D21
D* (Pk.,600,1) x 10 ¹¹	1.5	2.5	2.8
Peak Wavelength Response - Microns	2.5	2.6	2.7
Time Constant - Milliseconds Typ	800	1200	1800
Resistance - Megohms	2-10	2-12	2-1 5
Operating Temperature - °C	-25	-35	-50
Cooler Power - Volts DC/Amps	1V/2A	.8V/1.3A	1.9V/1.4A

激活面积规格：

Code Number	Active Area		Bias Voltage	Typical VW ^{-1X15} Responsivity			Package Size
	Inches	mm		Typical	-25	-35	
1	.040	1	50	.9-1x10 ⁶	1-2x10 ⁶	1.5-2.5x10 ⁶	TO-5-37-8-66
2	.080	2	100	6-9x10 ⁵	.6-1x10 ⁶	0.6-1.2x10 ⁶	TO-5-37-8-66
3	.120	3	150	4-6x10 ⁵	4-6x10 ⁵	4-6x10 ⁵	TO-5-37-8-66
5	.200	5	250	2-4x10 ⁵	NA	2-4x10 ⁵	TO-8-66
10	.400	10	500	1-2x10 ⁵	NA	NA	TO-3

机械尺寸规格：



Select the proper electrical type (D, D21), and match it with the proper mechanical and package code number. Example: D-3-8, D2-1-37, D21-3-8. The active areas listed are considered standard sizes. Special sizes are available upon request.

探测器术语解释：

Background Temperature

The effective temperature of all radiation sources viewed by the detector, excluding the signal source.

Bias Voltage

The voltage applied to the detector circuit, normally DC volts; sometimes called optimum bias for values which give optimum signal-to-noise ratios and maximum bias for values which produce the maximum signal voltage output, it is called reverse bias when applied to the P-N junction of solid crystal detectors in a reverse mode to increase the speed of response or to increase the long wavelength response.

Dark Current

The measured current in a detector circuit when operated with no signal radiation incident on the detector element

Dark Resistance

The ratio of the DC voltage across the detector to the DC current through it when no radiation is incident on the detector.

D-Star (D*)

A relative measure of sensitivity used to compare the detecting capabilities of different detectors. D* is the signal-to-noise ratio at a specific electrical frequency with a 1 Hz bandwidth when radiant power is incident on the detector active area.

Load Resistor

A resistance element that is in series with the detector element and bias

Resistivity

The square areas resistance of a thin film detector, where L and W are equal; L being the separation between the electrodes and W is the length of the detector active area. Resistivity is a function of the detector element temperature and the level of irradiance.

Responsivity

A value indicating signal output from radiation incident on the detector element. The value where the detector has a maximum spectral response is called peak responsivity. It is a function of detector area, wavelength, and circuit parameters.

Rise Time-Fall Time

Rise time and fall time are the times in seconds required for the signal response to rise from 10% to 90% and fall from 90% to 10% of the maximum observed signal value. This happens when detectors are exposed to pulses of signal radiant power.

RMS Noise Voltage or Current

The element of the electrical output (voltage or current) which is incoherent with the signal radiant power, usually measured with no signal radiation incident on the detector element and is related to the detector area. It is the function of frequency response, noise equivalent bandwidth, operating temperature, other circuit parameters such as the load resistor, and in some cases detector solid angle and background

Noise-Equivalent-Power (NEP)

The amount of required signal radiant power on the detector element area to yield a signal-to-noise ratio of one, and indicates the minimum detectable radiation level; the smaller the NEP value, the better the performance.

Photoconductive Detector

A photon detector which exhibits increased conductivity with incident radiant power.

Photovoltaic detector

A photon detector with a p-n or p-i-n junction which converts radiant power directly into electrical current; also called a photodiode.

RMS Signal Voltage or Current

The element of the electrical output (voltage or current) which is coherent with the monochromatic or blackbody input signal radiant power. It is a function of electrical frequency, signal power, spectral characteristics, operating temperature, and other circuit parameters such as the load resistor and bias voltage.

Spectral Response

Most of the time this is shown as D^* vs. Wavelength, usually presented as a graph showing relative signal as a function of wave length of the incident radiant power.

Time Constant

A measurement of a detector's speed of response when the detector is exposed to a square wave pulse of radiation. The rise time constant is the time required for the signal voltage to reach 0.63 times its asymptotic value. The decay time constant is the time required for the signal voltage to decay to 0.37 of the asymptotic value. This can also be measured by determining the chopping frequency at which the signal response is 0.707 of its maximum value.

