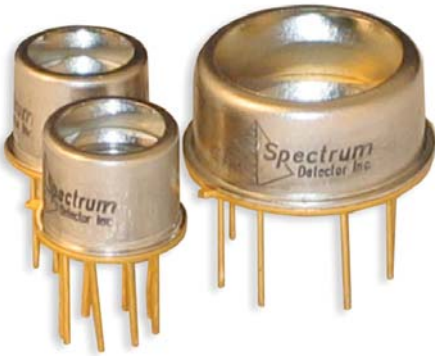


SPH-30 Series: Hybrid Pyroelectric Detector.



Current Mode, High Frequency, Low Noise.

These current mode hybrids offer solid noise performance at elevated frequencies. The standard device includes a 10^8 ohm resistor with bandwidth to 5 KHz. These detectors take full advantage of our Pyroelectrics fast response time (nanoseconds).

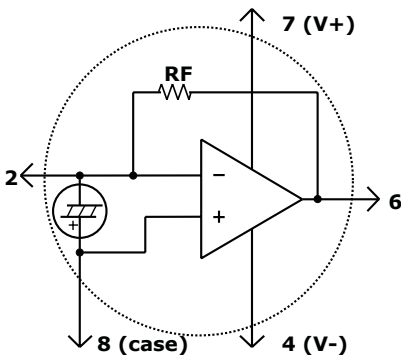
- ✓ Frequency response to 1KHz to 20MHz
- ✓ Voltage responsivity to 100 V/W
- ✓ NEP 5×10^{-8} W/(Hz)^{1/2}
- ✓ 1 mm to 9 mm diameter
- ✓ Optional IR windows

Available with five element sizes from 1mm to 9mm diameter and packaged in T05 or T08 enclosures. Power required ... +/- 12 Volts.

Options for this series of hybrids include IR windows that tailor their spectral response.

We also offer a unique test box, **SPH-CM-TEST**, for an easy and convenient way to power and evaluate the **SPH-30** hybrids.

Spectrum Detector Inc.
Detector solutions that cover the spectrum.



SPH-30 Series: Current Mode, High Frequency, Low Noise.

Specification (@25°C)	SPH-31			SPH-32			SPH-33			SPH-35			SPH-39			Units	Conditions	
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max			
d, Diameter		1			2			3			5			9		mm		
A, Area		0.78			3.14			7.07			19.63			63.62		mm ²		
C _d , Capacitance		15			22			60			90			280		pF	f=1kHz	
R _i , Current Responsivity	0.7	1		0.3	0.5		0.3	0.5		0.15	0.25		0.15	0.25		μA/W	at 0.63 μm	
f _t , Thermal 3db Frequency		3.5	6		1.6	3		0.8	2		0.5	1		0.25	0.5	Hz		
R _F Feedback Resistor		0.1			0.1			0.1			0.1			0.1		Giga Ohms		
R _v , Voltage Responsivity	70	100		40	50		30	50		15	25		15	25		V/W	0.63 μm; 5Hz	
NEP, Noise Equivalent Power		0.5	1.5		0.8	2.0		0.8	2.0		1.6	5.0		1.6	5	$\times 10^{-7}$ W/(Hz) ^{1/2}	0.63 μm; 5Hz; 1Hz BW	
D*, Detectivity	0.6	1.8		0.9	2.2		1.3	3.3		0.9	2.8		1.6	5.0		$\times 10^6$ cm/(Hz) ^{1/2} /W	0.63 μm; 5Hz; 1Hz BW	
V _{DD} , Supply Voltage		+/-12			+/-12			+/-12			+/-12			+/-12			Volts	
Package		T05			T05			T05			T05			T08				
Price in USD		\$450			\$480			\$500			\$520			\$650				

