



## Schottky Detectors

## SPECIFICATIONS

	OMNIYIG MODEL NUMBER	FREQUENCY RANGE (GHz)	TYPICAL <sup>2</sup> TSS (dBm)	K-FACTOR <sup>1</sup> MINIMUM (mv/mW)	RF BYPASS <sup>4</sup> CAPACITOR (pf)	BIAS <sup>3</sup> (microamps)	FLATNESS (±dB)	VIDEO CONNECTOR (female)	
B R O A D	ODS0004A	0.1-18	-51	1000	15	100	1.5	SMA	
	ODS0102C	0.1-1.0	-54	2000	500	100	0.5	BNC	
	ODS0502A	0.1-1.0	-54	2000	500	100	0.5	SMA	
	ODS0109C	0.5-2.0	-53	2000	100	100	0.5	BNC	
	ODS0509A	0.5-2.0	-53	2000	100	100	0.5	SMA	
	ODS0110C	0.5-4.0	-53	1750	100	100	0.5	BNC	
	ODS0510A	0.5-4.0	-53	1750	100	100	0.5	SMA	
	ODS0117C	1.0-4.0	-53	1750	50	100	0.5	BNC	
	ODS0517A	1.0-4.0	-53	1750	50	100	0.5	SMA	
	ODS0118C	1.0-12	-52	1250	50	100	1.0	BNC	
B A N D	ODS0518A	1.0-12	-52	1250	50	100	1.0	SMA	
	ODS0126C	2.0-8.0	-52	1500	50	100	0.7	BNC	
	ODS0526A	2.0-8.0	-52	1500	50	100	0.7	SMA	
	ODS0127C	2.0-12	-52	1250	50	100	1.0	BNC	
	ODS0527A	2.0-12	-52	1250	50	100	1.0	SMA	
	ODS0328A	2.0-18	-51	1000	30	100	1.2	SMA	
	ODS0428C	2.0-18	-51	1000	30	100	1.2	BNC	
	ODS0134C	4.0-12	-51	1250	30	100	0.7	BNC	
	ODS0234A	4.0-12	-52	1250	30	100	0.7	SMA	
	ODS0434C	4.0-12	-52	1250	30	100	0.7	BNC	
U N I T S	ODS0235A	4.0-18	-51	1000	30	100	1.0	SMA	
	ODS0101C	0.1-0.5	-54	2000	500	100	0.3	BNC	
	ODS0501A	0.1-0.5	-54	2000	500	100	0.3	SMA	
	ODS0108C	0.5-1.0	-54	2000	100	100	0.3	BNC	
	ODS0508A	0.5-1.0	-54	2000	100	100	0.3	SMA	
	ODS0116C	1.0-2.0	-53	2000	50	100	0.3	BNC	
	ODS0516A	1.0-2.0	-53	2000	50	100	0.3	SMA	
	ODS0125C	2.0-4.0	-53	2000	50	100	0.4	BNC	
	ODS0525A	2.0-4.0	-53	2000	50	100	0.4	SMA	
	ODS0131C	2.5-5.0	-53	2000	50	100	0.4	BNC	
O C T A V E	ODS0531A	2.5-5.0	-53	2000	50	100	0.4	SMA	
	ODS0133C	4.0-8.0	-53	2000	30	100	0.5	BNC	
	ODS0533A	4.0-8.0	-53	2000	30	100	0.5	SMA	
	ODS0137C	5.0-10	-52	2000	30	100	0.5	BNC	
	ODS0137A	5.0-10	-52	2000	30	100	0.5	SMA	
	ODS0537A	5.0-10	-52	2000	30	100	0.5	SMA	
	ODS0139C	6.0-12	-52	2000	30	100	0.5	BNC	
	ODS0139A	6.0-12	-52	2000	30	100	0.5	SMA	
	ODS0141C	7.0-11	-52	2000	30	100	0.5	BNC	
	ODS0241A	7.0-11	-52	2000	30	100	0.5	SMA	
B A N D	ODS0143C	8.0-12	-52	2000	30	100	0.5	BNC	
	ODS0243A	8.0-12	-52	2000	30	100	0.5	SMA	
	ODS0244A	8.0-16	-52	1500	20	100	0.7	SMA	
	ODS0245A	8.0-18	-51	1250	20	100	0.7	SMA	
	ODS0248A	11-18	-51	1500	20	100	0.6	SMA	
	ODS0249A	12-18	-51	1250	20	100	0.7	SMA	
	ODS0251A	18-26	-47	750	15	100	1.0	SMA	
	U N I T S	ODS0115C	0.7-1.4	-54	3000	100	100	0.3	BNC
		ODS0515A	0.7-1.4	-54	3000	100	100	0.3	SMA
		ODS0123C	1.7-2.4	-54	3000	50	100	.15	BNC
ODS0523A		1.7-2.4	-54	3000	50	100	.15	SMA	
ODS0129C		2.2-2.3	-54	3000	50	100	.15	BNC	
ODS0529A		2.2-2.3	-54	3000	50	100	.15	SMA	
ODS0132C		3.7-4.2	-53	3000	50	100	.15	BNC	
ODS0532A		3.7-4.2	-53	3000	50	100	.15	SMA	
ODS0138C		5.4-5.9	-53	3000	30	100	.15	BNC	
ODS0538A		5.4-5.9	-53	3000	30	100	.15	SMA	
S P E C I A L U N I T S	ODS0142C	7.5-8.5	-53	2500	30	100	0.2	BNC	
	ODS0242A	7.5-8.5	-53	2500	30	100	0.2	SMA	
	ODS0146C	8.5-9.6	-53	2500	30	100	0.2	BNC	
	ODS0146A	8.5-9.6	-53	2500	30	100	0.2	SMA	

**NOTES:**

1. "K" is the small signal open circuit voltage sensitivity.  $V_{out}/P_{in}$ . Measurements are taken at -20 dBm RF incident power.
2. BW = 2 MHz.
3. May be adjusted to obtain increased sensitivity (lower bias) or reduced VSWR (higher bias). Specifications apply for stated bias.
4. Capacitor values listed are typical. Smaller values available for improved video bandwidth.
5. Video connectors have standard options at NO extra cost as follows:
  - A. BNC female may be replaced with TNC female, SMA female, SMB male, SMC male or solder pin.
  - B. SMA female may be replaced with SMB male, SMC male or solder pin.
  - C. Video connector designations are SMA female (A), SMB male (F), BNC female (C), SMC male (E), TNC female (G), Solder Pin (J).
  - D. Outline styles 00 and 03 have no video connector option. SMA female only.
6. Normal video polarity is negative. Add the letter "R" to the model for positive polarity. (No additional charge).
7. Detectors can be matched within  $\pm 0.25$  dB over octave bandwidths and  $\pm 0.4$  dB over wider bandwidths.  
Add the letter "P" to the end of the model number for matched pairs. Add 10% to price for matching in pairs.
8. Warranty applies to mount only, not the diode element. This element may be replaced at the factory for a nominal charge of \$45.00.

MODEL NUMBER SYSTEM	PRODUCT	STYLE DESC.	FREQ.	OUTPUT CONN.
	<u>ODS</u>	<u>00</u>	<u>04</u>	<u>A</u>
<b>ENVIRONMENTAL</b>	MIL-STD-883			CONDITION
<b>Temperature Range</b>				
<b>Storage</b>	1008C			-65°C to +150°C
<b>Operating (see derating curve)</b>	1008C			-65°C to +125°C
<b>Temperature Cycling</b>	1010C			5 cycles, -65°C to +125°C
<b>Thermal Shock</b>	1011A			5 cycles, 0 to +100°C
<b>Moisture Resistance</b>	1004			10 days, 90 to 98% R H
<b>Shock (Mechanical)</b>	2002A			5 blows, X Y Z @ 50 G's
<b>Vibration Variable Frequency</b>	2007A			4, 4-min. cycles x y z @ 20 G's peak, 100 to 2,000 Hz
<b>Constant Acceleration</b>	2001A			X <sub>1</sub> Y <sub>1</sub> Y <sub>2</sub> 500 G's