



# MAXIMALLY FLAT SCHOTTKY DETECTORS

## 1 – 18GHZ

These schottky diode detectors are designed for optimum output voltage flatness vs. input frequency. Excellent flatness performance is maintained up through +15dBm input power.

Many forms of detectors exhibit uneven expansion and unacceptable flatness at higher power levels. Our design minimizes this effect making the detectors more useful and accurate as broadband power monitors



**Each detector model contains:**

- DC Return
- RF Bypass Capacitor
- Detector Diode

**Features:**

- Exceptional Temperature Stability
- Low Video Resistance (110Ω typical)
- Broadband Performance
- No Bias Required

**Applications:**

- Transmitter Monitoring
- Missile Guidance Systems
- Input to Low-Noise Amplifiers
- Broadband Or Narrowband ECM Receivers
- Power and Signal Monitors
- Doppler Radar and Beacon Receivers
- Matched units available for Multi-channel Receivers, Amplitude Comparator Systems and Discriminators

Detector Part Number: **ACSP2154P**

Nominal Output Voltage	Flatness vs Frequency (+/-dB)	VSWR	Maximum RF Input Power (dBm)	Standard Case Styles	Optional Case Styles
12mV @ -20dBm	0.5dB @ -20dBm	2:1 @ -20dBm	+20	M22	C36,C37
100mV @ -10dBm	0.7dB @ -10dBm	3:1 @ -10dBm			
500mV @ 0dBm	0.7dB @ 0dBm	4.5:1 @ 0dBm			
1V @ +5dBm	1.0dB @ +5dBm				

**NOTES:**

- 1) Connectors may be removed leaving a module (M22) for stripline or microstrip mounting.

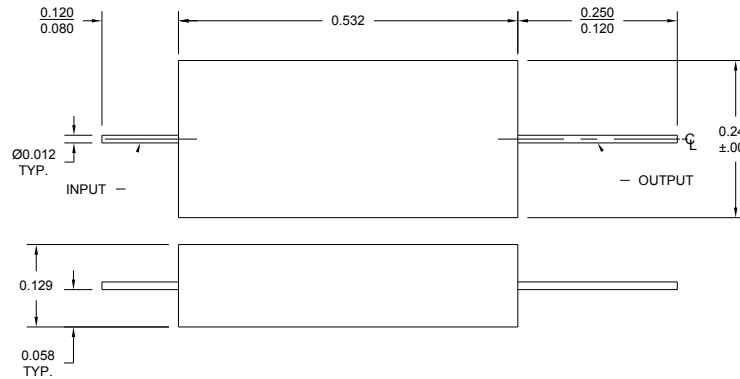
**ENVIRONMENTAL SPECIFICATIONS:**

**SCREENING :**

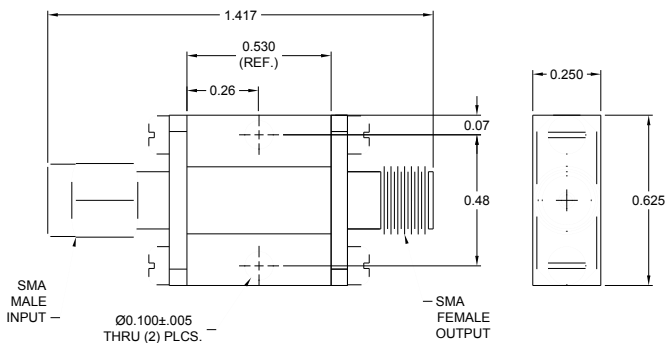


MIL-E-5400, MIL-STD-202, MIL-E-16400  
 Operating Temp: -65°C to +100°C  
 Storage Temp: -65°C to +100°C  
 Humidity: MIL-STD-202F, M103, Cond B  
 Shock: MIL-STD-202F, M213, Cond B  
 Altitude: MIL-STD-202F, M105, Cond B  
 Vibration : MIL-STD-202F, M204, Cond B  
 Thermal Shock: MIL-STD-202F, M107, Cond A  
 Temperature Cycle: MIL-STD-202F, M105C, Cond D  
 Maximum Input Power: +20dBm

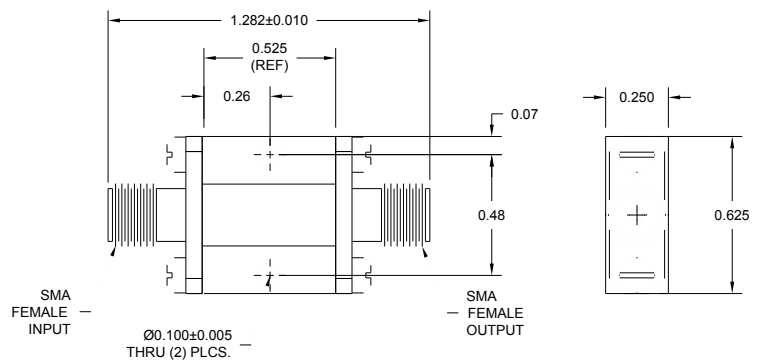
Standard Screening:  
 Internal Visual per MIL-STD-883, Method 2017  
 Temperature Cycle: -65°C to +100°C, 10 cycles  
Optional High-Rel Screening (Ref MIL-PRF-38534):  
 Internal Visual per MIL-STD-883, Method 2017  
 Stabilization Bake per MIL-STD-883, Method 1008  
 Temperature Cycle per MIL-STD-883, Method 1010  
 Constant Acceleration per MIL-STD-883, Method 2001  
 Burn-in per MIL-STD-883, Method 1015  
 Leak Test per MIL-STD-883, Method 1014  
 External Visual per MIL-STD-883, Method 2009



CASE STYLE M22



CASE STYLE C36



CASE STYLE C37

**Part Number Ordering Information:**

Example: ACSM2154PM22  
 ACSM2154: Maximally Flat Schottky Detector, 1 - 18GHz  
 P: Positive output polarity  
 M22: Package type

SMMF-0205