



# ACTP-1648

## COAXIAL TUNNEL DIODE DETECTORS

<b>Frequency Range (min)</b>	4 – 8	GHz
<b>Sensitivity (min)</b>	650	mV/mW
<b>Flatness vs. Frequency (max)</b>	0.4	±dB
<b>Typical TSS</b>	-50	dBm
<b>Typical VSWR</b>	2.0:1	Ratio
<b>Nominal Video Capacitance</b>	12	pF

**NOTES:**

Maximum input power: +14dBm (3dB guardband for +17dBm possible burnout)  
 Sensitivity is measured into an open circuit load (>10k ohm).  
 VSWR is measured at or below -20dBm input power level.  
 Video capacitance is used for RF bypass. This value can be changed if required for video response time. Contact the factory for more information.

**ENVIRONMENTAL SPECIFICATIONS:**

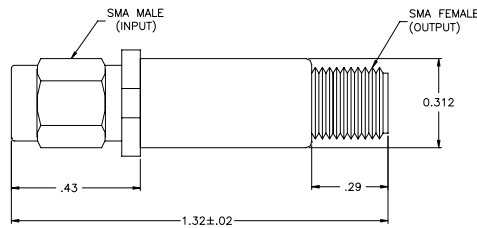
MIL-E-5400, MIL-STD-202, MIL-E-16400  
 Operating Temp: -55°C to +100°C  
 Storage Temp: -65°C to +100°C  
 Humidity: MIL-STD-202F, M103, Cond B  
 Shock: MIL-STD-202F, M213, Cond B  
 Altitude: MIL-STD-202F, M105, Cond B  
 Vibration : MIL-STD-202F, M204, Cond B  
 Thermal Shock: MIL-STD-202F, M107, Cond A  
 Temperature Cycle: MIL-STD-202F, M105C, Cond D

**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):**

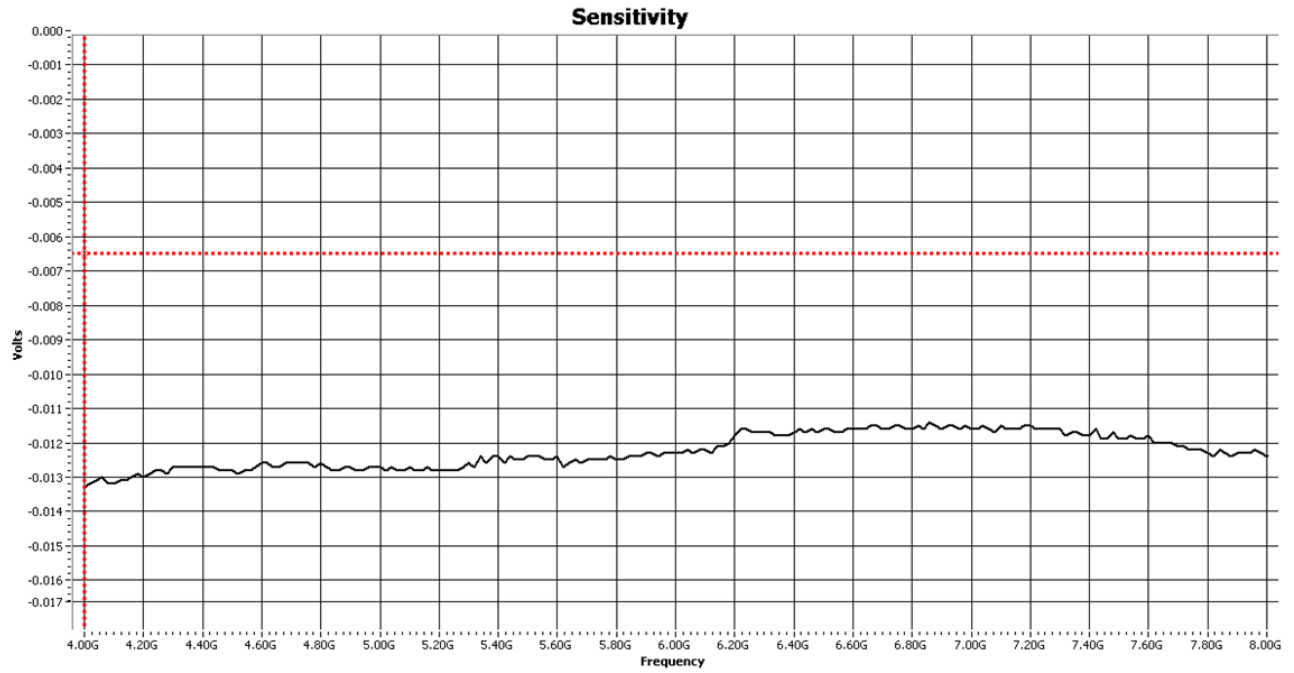
Stabilization Bake per MIL-STD-883, Method 1008  
 Temperature Cycle per MIL-STD-883, Method 1010  
 Constant Acceleration per MIL-STD-883, Method 2001  
 Burn-in per MIL-STD-883, Method 1015  
 Leak Test per MIL-STD-883, Method 1014  
 External Visual per MIL-STD-883, Method 2009



### STANDARD CASE STYLE C3 (Optional Case Styles – C8, C15)

**PART NUMBER ORDERING INFORMATION:**

- Add desired polarity suffix: "N" for Negative, "P" for Positive (Ex: ACSP-1648N)
- Add desired case style suffix: "C3" (Ex: ACSP-1648NC3)
- Add "R" suffix: Reverse Connector Configuration (Ex: ACSP-1648NC3R) (SMA Female Input/SMA Male Output)
- Add "-RC" suffix: RoHS-compliant (Ex: ACSP-1648Nzc3-RC)



Flatness =  $\pm 0.335\text{dB}$

**Flatness**