

# ACTM-1012

## Tunnel Diode Detector Modules



### Features:

- Contains hermetically sealed modules, internal RF matching, DC return, and RF bypass capacitor.
- The video port is protected from static or transient charges.
- Input impedance matching.
- Models may be chosen for broadband RF performance or for optimized narrow bands



### Specifications:

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

Designed to meet:

MIL-E-5400, MIL-STD-202, MIL-E-16400

Operating Temp: -55°C to +125°C

Storage Temp: -65°C to +150°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:

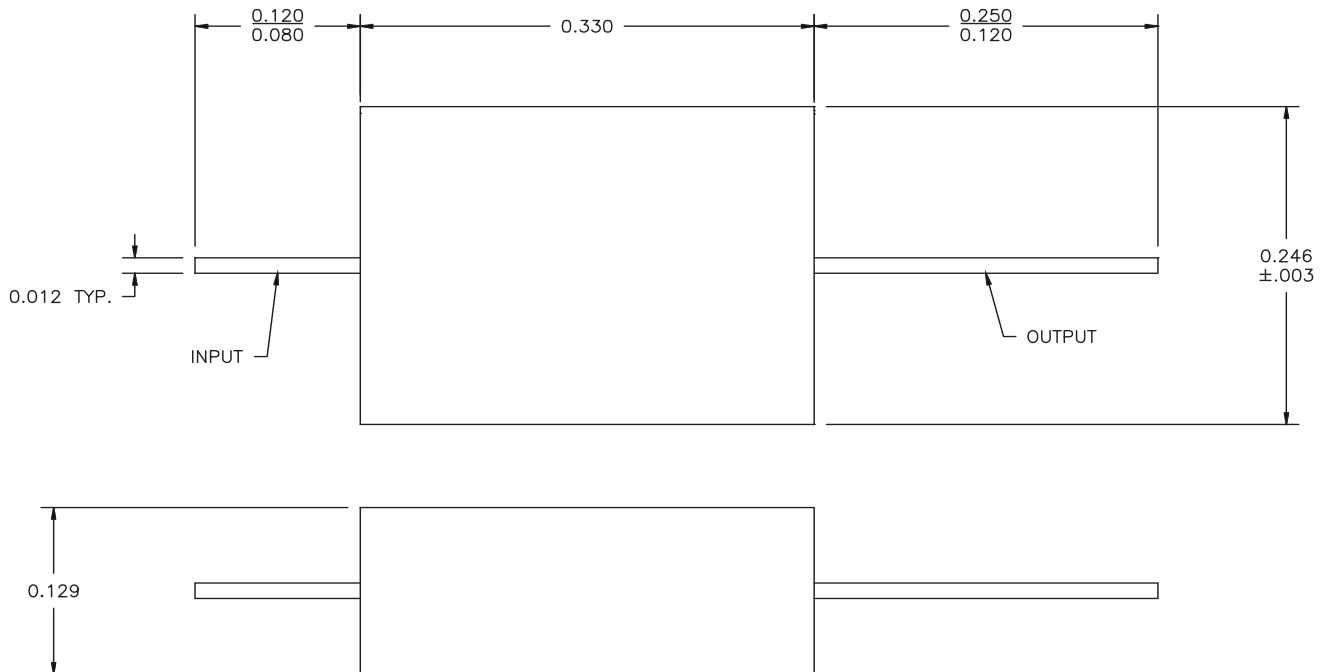
Internal Visual per MIL-STD-883, Method 2017  
Temperature Cycle: -65°C to +100°C, 10 cycles

### 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



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STANDARD CASE STYLE M12

## Part Number Ordering Information:

- Add desired polarity suffix: "N" for Negative, "P" for Positive (Ex: ACTM-1012N)
- Add desired case style suffix: "M22" (Ex: ACTM-1012NM12)
- Add "-RC" suffix: RoHS-compliant (Ex: ACTM-1012NM12-RC)

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ISO 9001:2008 certified



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.