ACSM-2139
Bolt Channel Schottky Detector

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 of for optimized narrow bands

Specifications:

Parameter	Specification	Units
Frequency Range (min)	17 – 18	GHz
Sensitivity (min)	1700	mV/mW
Flatness vs. Frequency (max)	0.5	±dB
Typical TSS	-51	dBm
Nominal Video Capacitance	9	pF

Notes:

Maximum input power: +20 dBm

Sensitivity is measured into an open circuit load (>10 k ohm).

Standard bias is 100 uA.

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
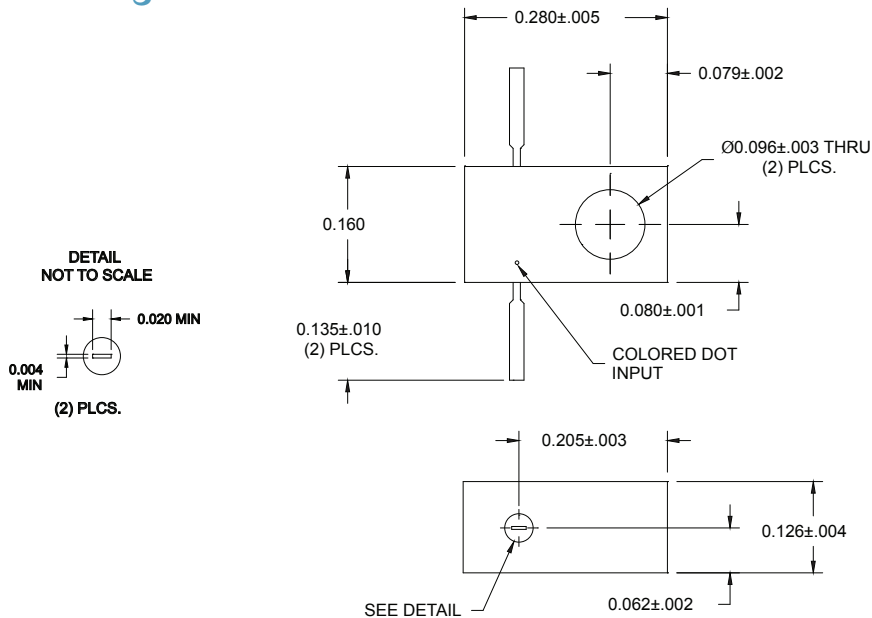
Leak Test per MIL-STD-883, Method 1014

External Visual per MIL-STD-883, Method 2009

Outline Drawing:

DETAIL
NOT TO SCALE

0.280±.005

0.079±.002

Ø0.096±.003 THRU
(2) PLCS.

0.160

0.020 MIN

0.004
MIN

(2) PLCS.

0.135±.010
(2) PLCS.

0.080±.001

COLORED DOT
INPUT

0.205±.003

0.126±.004

SEE DETAIL

0.062±.002

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

Part Number Ordering Information:

- Add desired polarity suffix: "N" for Negative, "P" for Positive (Ex: ACSM-2139N)
- Add "Z" for zero biased schottky option (Ex: ACSM-2139NZ)
- Add case style suffix: "M51" (Ex: ACSM-2139NZM51)
- Add "-RC" suffix: RoHS-compliant (Ex: ACSM-2139NZM51-RC)

Notes (Continued):

- This part number is also available with a zero bias schottky diode.
- Due to higher impedance, the zero bias schottky will exhibit less sensitive TSS (typically a 3dB reduction)
- The temperature performance of the zero bias schottky is poor when operating at low input power levels.

ISO 9001:2008 certified

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