Schottky Barrier Diode

Schottky barrier diodes are designed primarily for high–efficiency UHF and VHF detector applications. Readily available to many other fast switching RF and digital applications.

Features

- Very Low Capacitance Less than 1.0 pF @ 0 V
- Low Noise Figure 6.0 dB Typ @ 1.0 GHz
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant



Rating	Symbol	Value	Unit
Reverse Voltage	V _R	7.0	Vdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR–5 Board, (Note 1) @T _A = 25°C Derate above 25°C	P _D	200 1.57	mW mW/°C
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	635	°C/W
Junction and Storage Temperature Range	T _J , T _{stg}	–55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1. FR-5 Minimum Pad

ELECTRICAL CHARACTERISTICS (T_A = 25° C unless otherwise noted)

Characteristic	Symbol	Min	Тур	Max	Unit
Reverse Breakdown Voltage (I _R = 10 μA)	V _{(BR)R}	7.0	10	-	V
Diode Capacitance $(V_R = 0, f = 1.0 \text{ MHZ}), (Note 2)^*$	CT	-	0.88	1.0	pF
Reverse Leakage (V _R = 3.0 V)	I _R	-	20	250	nAdc
Noise Figure (f = 1.0 GHz), (Note 3)*	NF	_	6.0	_	dB
Forward Voltage (I _F = 10 mA)	V _F	-	0.5	0.6	Vdc

*Notes on Next Page



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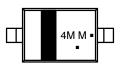
1.0 pF SCHOTTKY BARRIER DIODE





SOD-323 CASE 477 STYLE 1

MARKING DIAGRAM



4M = Device Code M = Date Code*

= Pb–Free Package

(Note: Microdot may be in either location)

*Date Code orientation may vary depending upon manufacturing location.

ORDERING INFORMATION

Device	Package	Shipping [†]
MMDL101T1G	SOD-323 (Pb-Free)	3000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MMDL101T1G

TYPICAL CHARACTERISTICS

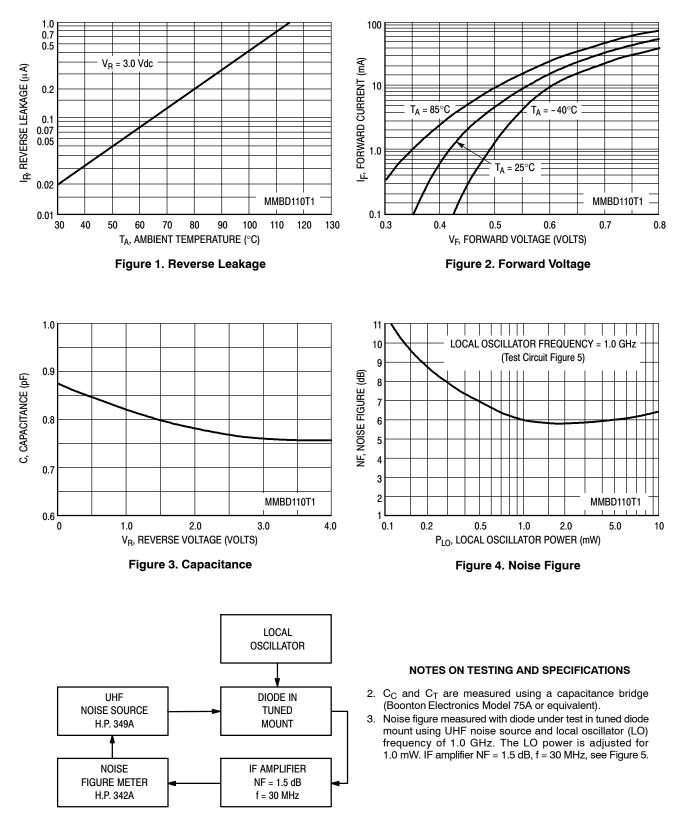
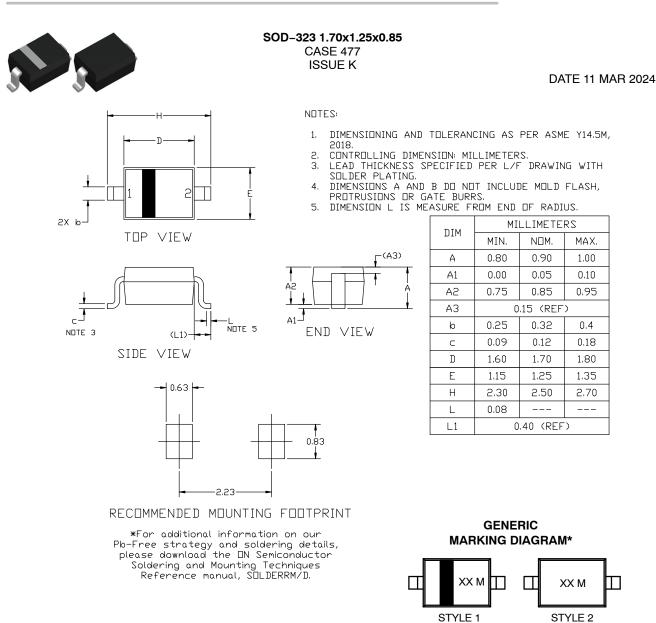


Figure 5. Noise Figure Test Circuit

MECHANICAL CASE OUTLINE

PACKAGE DIMENSIONS



XX = Specific Device Code M = Date Code

DUSEU

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

STYLE 2: NO POLARITY STYLE 1: PIN 1. CATHODE (POLARITY BAND) 2. ANODE

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