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MMBD352WT1G, Dual Schottky Barrier Diode

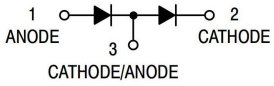
These devices are designed primarily for UHF mixer applications but are suitable also for use in detector and ultra−fast switching circuits.

Features

- Very Low Capacitance − Less Than 1.0 pF @ 0 V
- Low Forward Voltage − 0.5 V (Typ) @ I_F = 10 mA
- AEC Qualified and PPAP Capable
- NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements
- These Devices are Pb−Free, Halogen Free/BFR Free and are RoHS Compliant*



SOT−323 (SC−70)
CASE 419
STYLE 9



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	7.0	V_{CC}

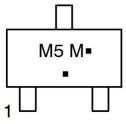
Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

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 1.6	 mW mW/°C
Thermal Resistance, Junction−to−Ambient	$R_{\theta JA}$	625	°C/W
Total Device Dissipation Alumina Substrate (Note 2) T_A = 25°C Derate above 25°C	P_D	 300 2.4	 mW mW/°C
Thermal Resistance, Junction−to−Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_J, T_{stg}	−55 to +150	°C

1. FR−5 = 1.0 × 0.75 × 0.062 in.
2. Alumina = 0.4 × 0.3 × 0.024 in. 99.5% alumina.

MARKING DIAGRAM



M5 = Specific Device Code
M = Date Code
▪ = Pb−Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

Device	Package	Shipping†
MMBD352WT1G	SOT−323 (Pb−Free)	3,000 / Tape & Reel

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Forward Voltage (I_F = 10 mAdc)	V_F	–	0.60	V
Reverse Voltage Leakage Current (V_R = 3.0 V) (V_R = 7.0 V)	I_R	– –	0.25 10	μA
Capacitance (V_R = 0 V, f = 1.0 MHz)	C	–	1.0	pF

TYPICAL CHARACTERISTICS

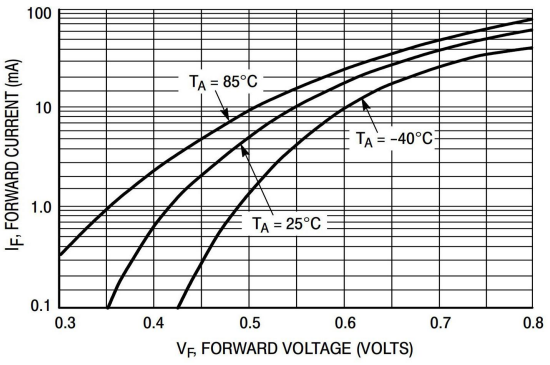


Figure 1. Forward Voltage

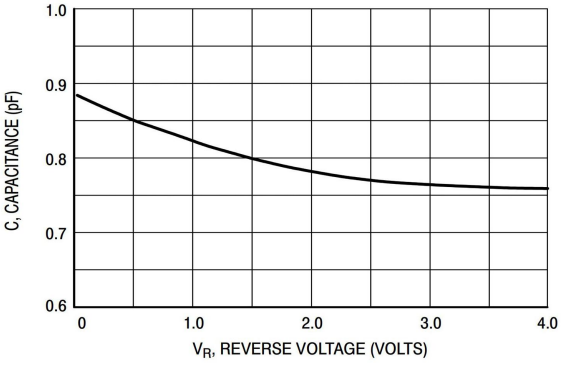
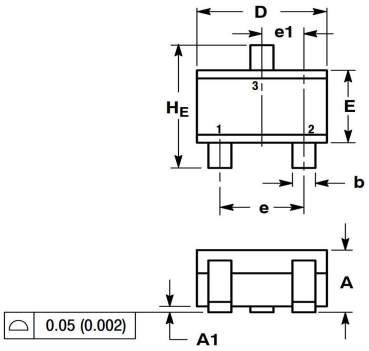
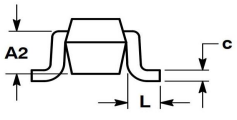


Figure 2. Capacitance

PACKAGE DIMENSIONS



SC−70 (SOT−323)
CASE 419−04
ISSUE N

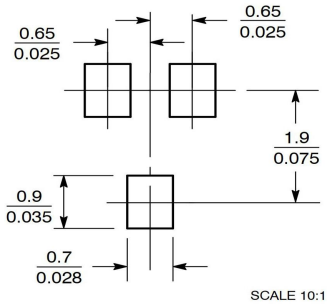


NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2		0.70 REF			0.028 REF	
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.10	2.20	0.071	0.083	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	0.047	0.051	0.055
e1		0.65 BSC			0.026 BSC	
L	0.20	0.38	0.56	0.008	0.015	0.022
H_E	2.00	2.10	2.40	0.079	0.083	0.095

STYLE 9:
PIN 1. ANODE
2. CATHODE
3. CATHODE−ANODE

SOLDERING FOOTPRINT*



SCALE 10:1 (mm / inches)