



MMBD914TS

SURFACE MOUNT SWITCHING DIODES

Voltage

100 V

Power

200 mW

SOD-523

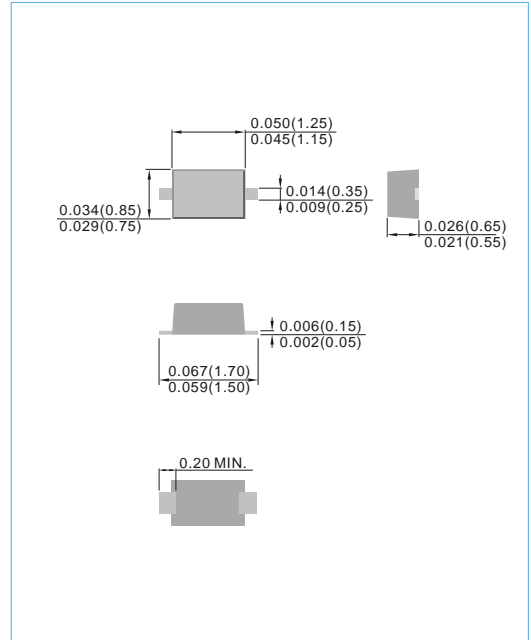
Unit : inch(mm)

Features

- Very fast reverse recovery ($T_{rr} < 2\text{ns}$ typical)
- Low capacitance (2pF @0V typical)
- Surface mount package Ideally suited for automatic insertion
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std.
(Halogen Free)

Mechanical Data

- Case: SOD-523 plastic case
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00005 ounces, 0.0014 grams
- Marking: T1



ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1\mu\text{s}$	I_{FSM}	4	A

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation (Note 1)	P_{TOT}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	635	$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

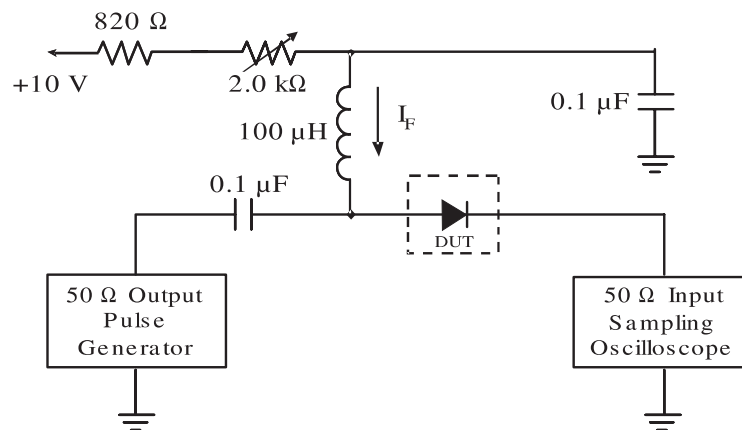
Note : 1.FR-4 Board = 70 x 60 x 1mm



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ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP	MAX.	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	100	-	-	V
Reverse Current	I_R	$V_R=20\text{V}$ $V_R=75\text{V}$	-	-	0.025 5	μA
Forward Voltage	V_F	$I_F=10\text{mA}$	-	-	1	V
Total Capacitance	C_J	$V_R=0\text{V}$ $f=1\text{MHz}$	-	-	4	pF
Reverse Recovery Time (Figure 1)	T_{RR}	$I_F = I_R=10\text{mA}$ $R_L=100\Omega$	-	-	4	ns



- Notes:
1. A 2.0k Ω variable resistor adjusted for a forward current (I_F) to 10mA
 2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT



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ELECTRICAL CHARACTERISTICS CURVE

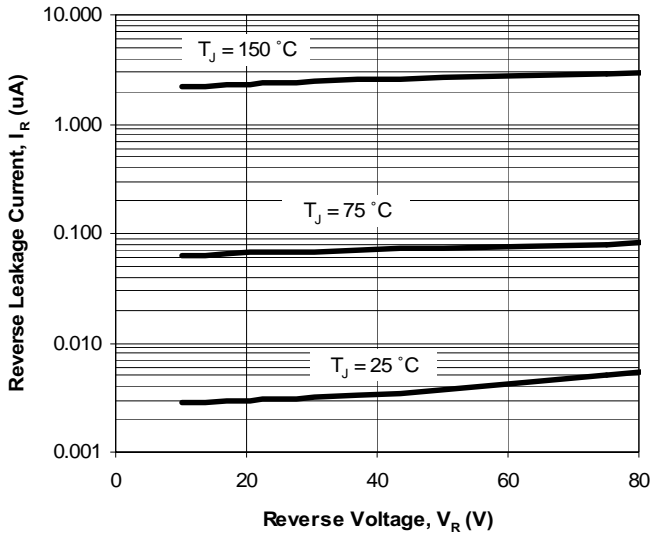


Fig. 2. Reverse Current vs. Reverse Voltage

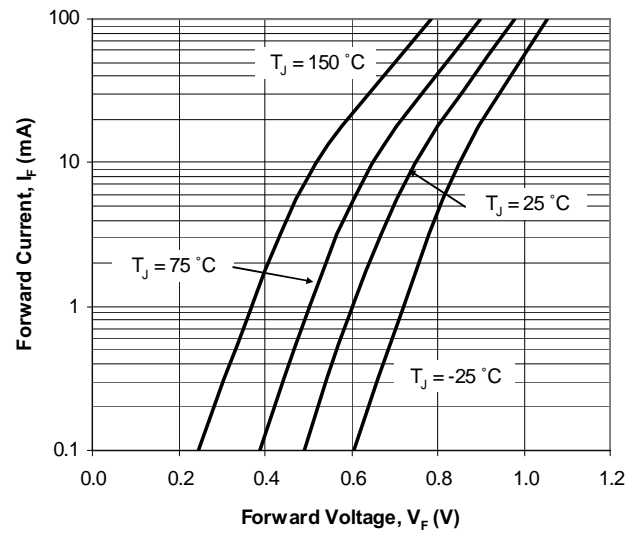


Fig. 3. Forward Current vs. Forward Voltage

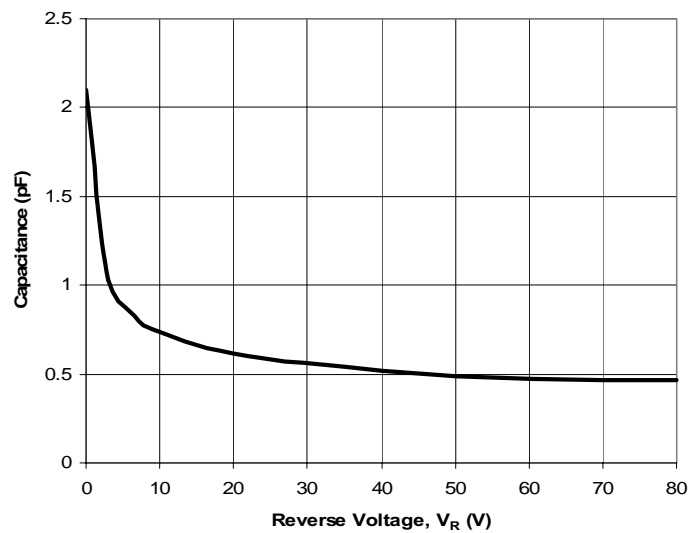
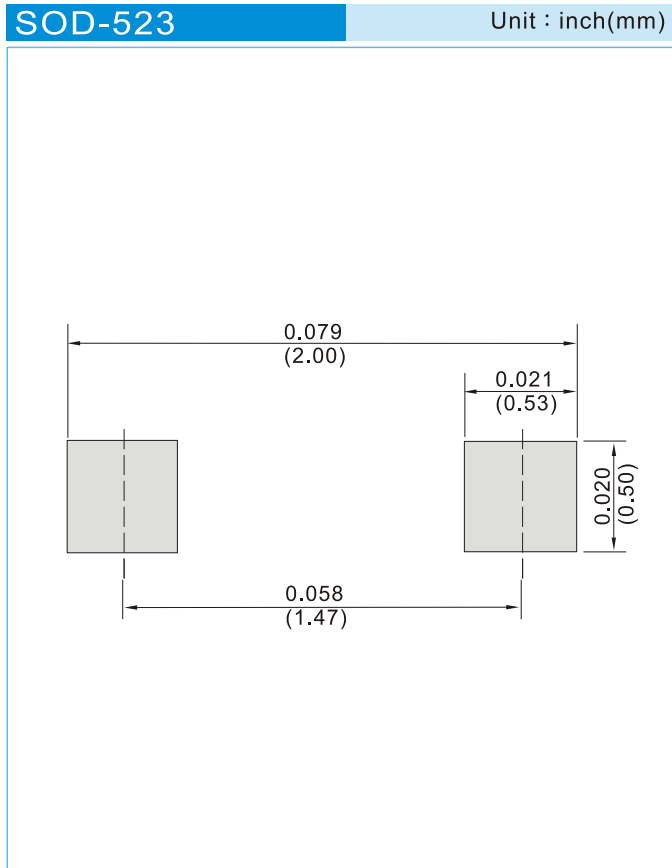


Fig. 4. Capacitance vs. Reverse Voltage



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 12K per 13" plastic Reel
T/R – 5K per 7" plastic Reel



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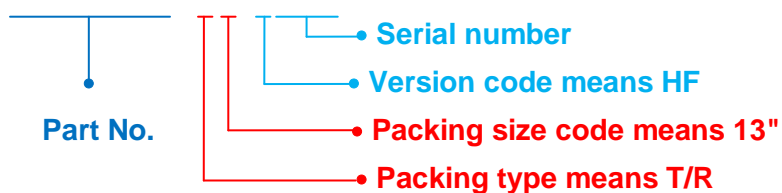
Part No_packing code_Version

MMBD914TS_R1_00001

MMBD914TS_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd -5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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