



MMBD914

SURFACE MOUNT SWITCHING DIODE

VOLTAGE 100 Volt **POWER** 225 mWatt

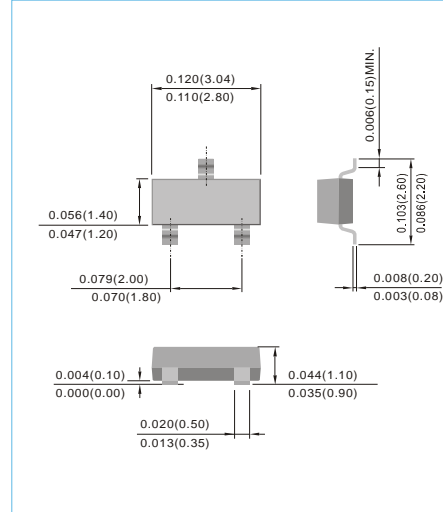
SOT-23 Unit : inch(mm)

FEATURES

- Very fast reverse recovery ($T_{rr} < 2\text{ns}$ typical)
- Low capacitance (4pF @ 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: SOT-23 plastic case.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams
- Marking : T1



ABSOLUTE RATINGS

Parameter	Symbol	Value	Units
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	Units
Power Dissipation (Note 1)	P_{TOT}	225	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$
Operating Junction And Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}\text{C}$

NOTE :

1. FR-5 Board = 1X0.75X0.062 in.

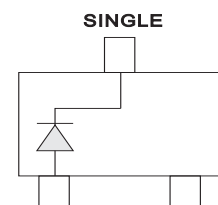


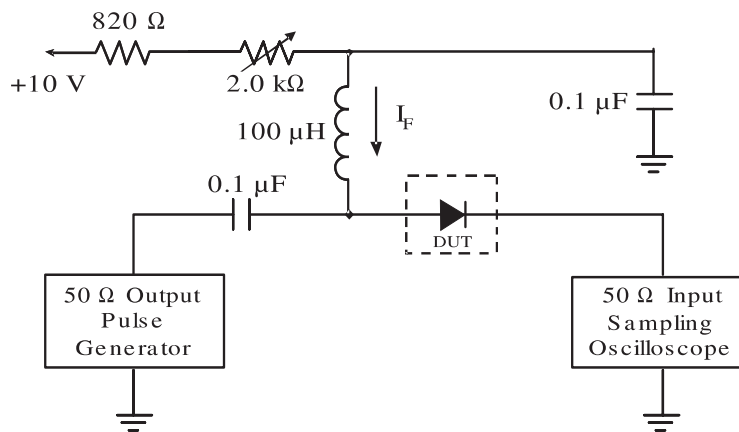
Fig.14



MMBD914

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
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	$f=1.0\text{MHz}$, $V_R=0\text{V}$	-	-	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 2.0kΩ 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



MMBD914

ELECTRICAL CHARACTERISTICS CURVE

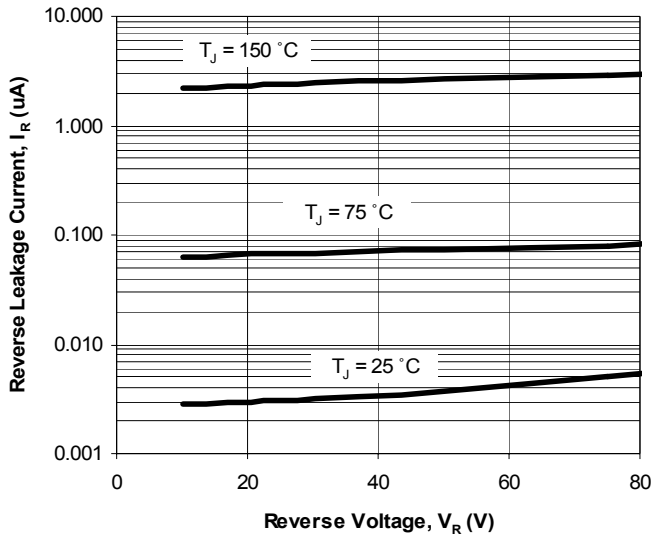


Fig. 2. Reverse Current vs. Reverse Voltage

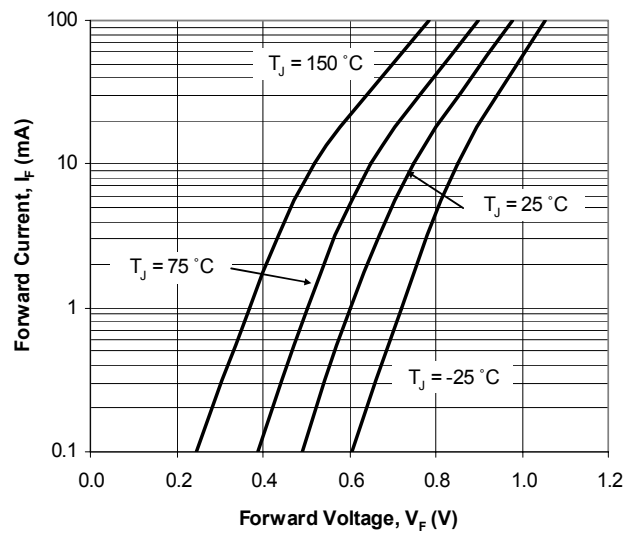


Fig. 3. Forward Current vs. Forward Voltage

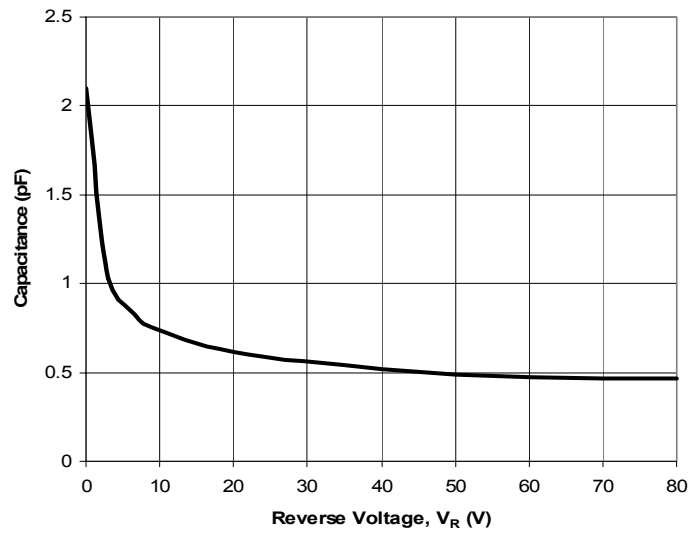


Fig. 4. Capacitance vs. Reverse Voltage

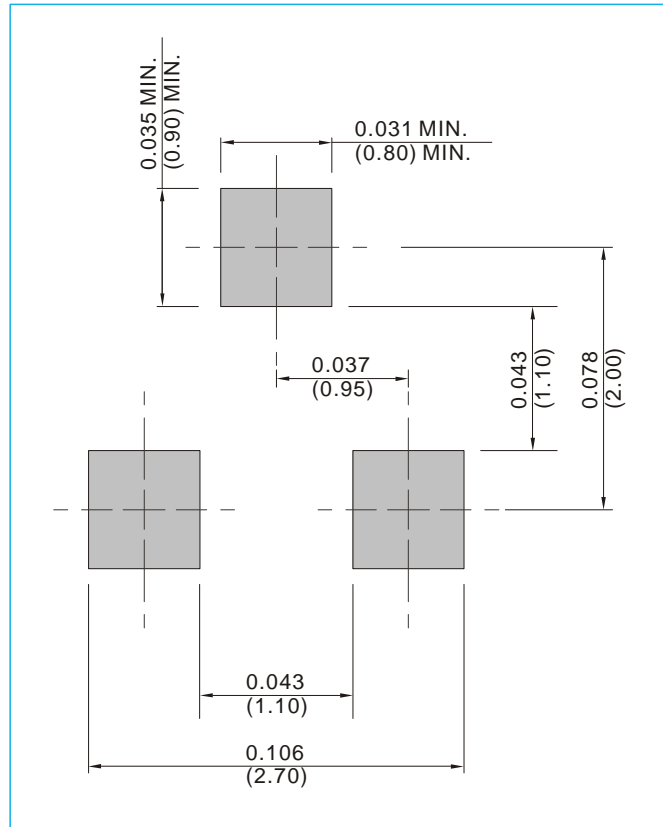


MMBD914

MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



MMBD914

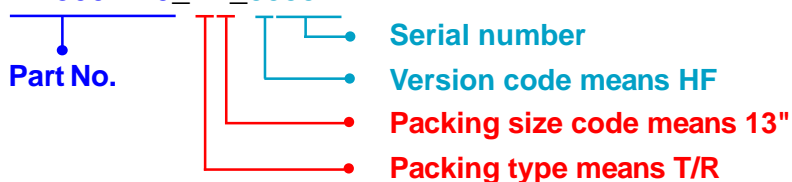
Part No_packing code_Version

MMBD914_R1_00001

MMBD914_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			



MMBD914

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