

High-speed switching diode

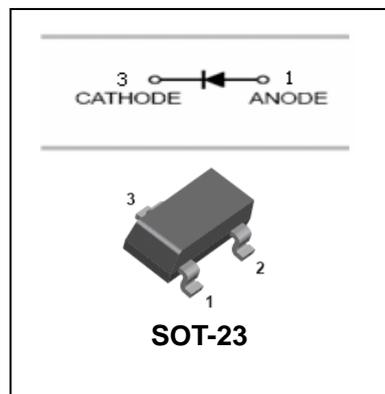
MMBD914

FEATURES

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.



Lead-free



APPLICATIONS

- High speed switching.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD914	5D	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Peak repetitive peak reverse voltage Working peak reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	75	V
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Non -Repetitive Peak Forward Surge Current @t=1us @t=1s	I_{FSM}	2.0 1.0	A
Average Rectified Output Current	I_O	200	mA
Power Dissipation	P_d	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	$T_j T_{STG}$	-65 to +150	°C



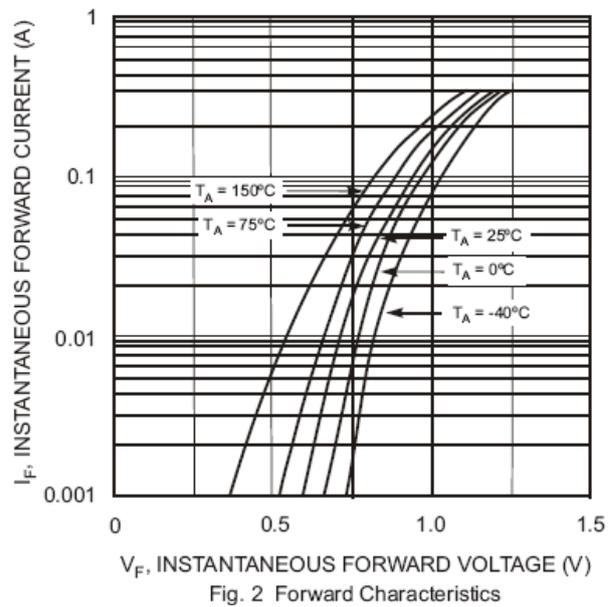
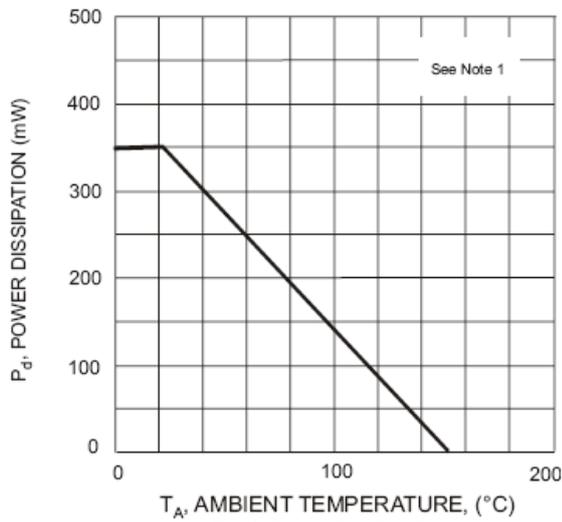
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75		V	$I_R=100\mu A$
Forward Voltage	V_{F1} V_{F2} V_{F3} V_{F4}		715 855 1000 1250	mV	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse Current	I_R		1.0 50 30 25	μA μA μA nA	$V_R=75V$ $V_R=75V, T_j=150^\circ C$ $V_R=25V, T_j=150^\circ C$ $V_R=20V$
Reverse Recovery Time	t_{rr}		4	nS	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$
Diode Capacitance	C_D		2.0	pF	$V_R=0V, f=1MHz$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified





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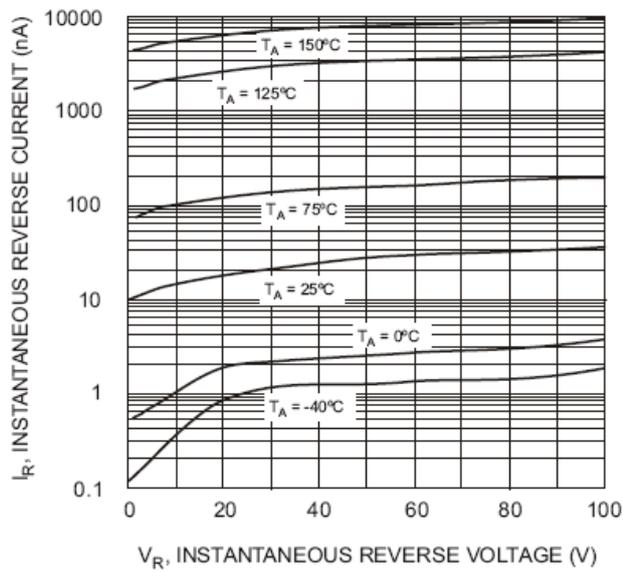


Fig. 3 Typical Reverse Characteristics

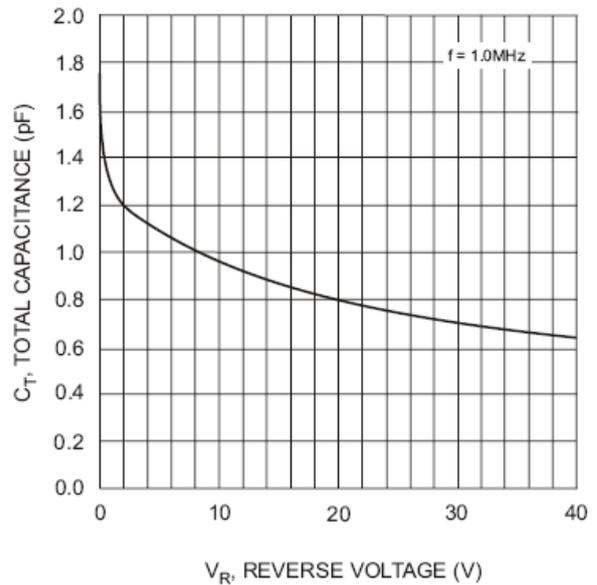


Fig. 4 Typical Capacitance vs. Reverse Voltage



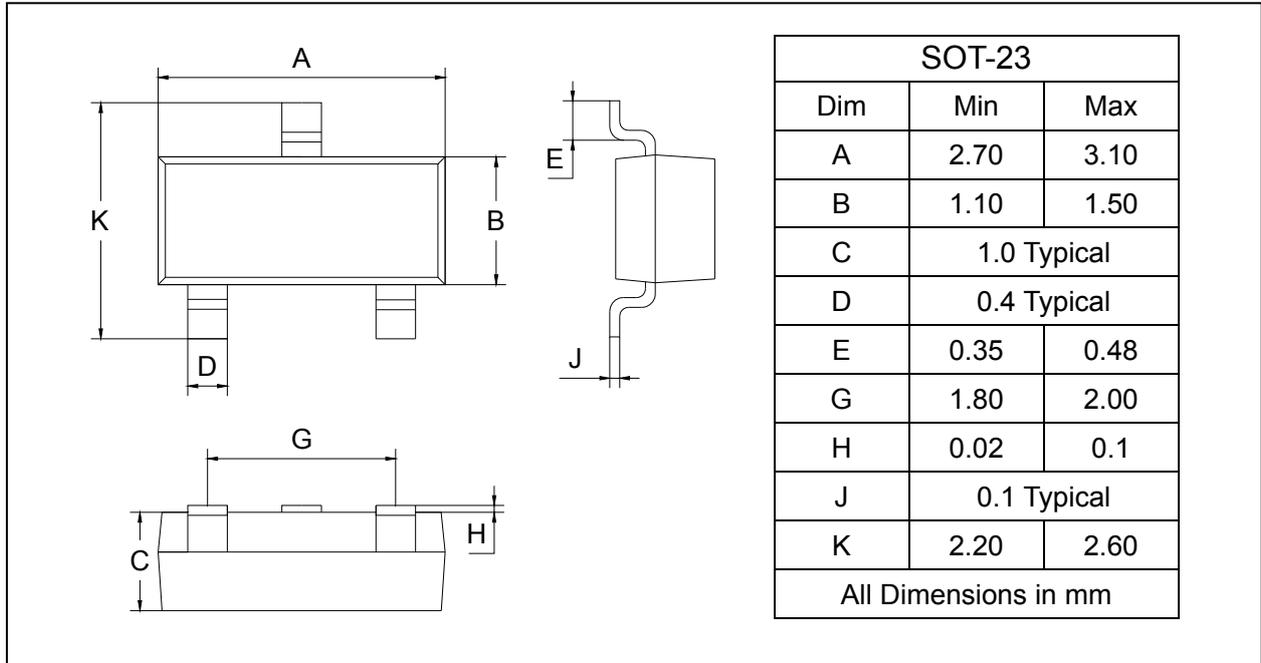
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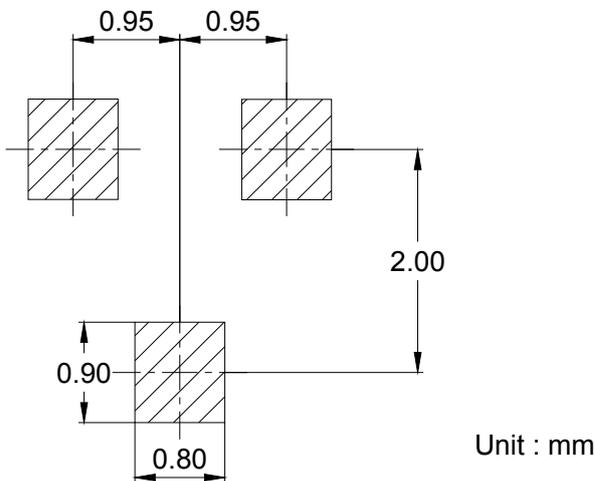
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBD914	SOT-23	3000/Tape&Reel