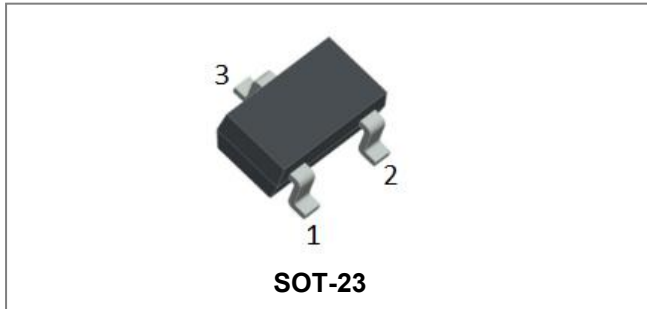


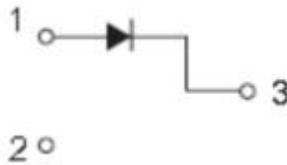
MMBD914 SURFACE MOUNT FAST SWITCHING DIODE



Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package
- RoHS compliant / Green EMC
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Weight: 0.008g

Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Units
Reverse Voltage	V_{RM}	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Current	I_O	150	mA
Forward DC Current	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=1\text{s}$	I_{FSM}	1.0	A
Power Dissipation	P_{tot}	350	mW
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	428	$^\circ\text{C}/\text{W}$
Junction Temperature Range	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +155	$^\circ\text{C}$

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage *	V_F	-	0.855	V	@ $I_F=10\text{mA}$
Reverse Breakdown Voltage*	V_R	75	-	V	@ $I_R=100\mu\text{A}$
Reverse Leakage Current *	I_R	-	1.0 25	μA nA	@ $V_R=75\text{V}$ @ $V_R=20\text{V}$
Junction Capacitance	C_j	-	2.0	pF	$V_R=0\text{V}$, $f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	4.0	ns	$I_F=I_R=10\text{mA}$, $I_{RR}=0.1 \times I_R$

* Pulse width < 300 μs , duty cycle < 2%

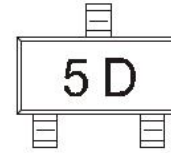
Note: 1. Device mounted on fiberglass substrate $40 \times 40 \times 1.5\text{mm}$.

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

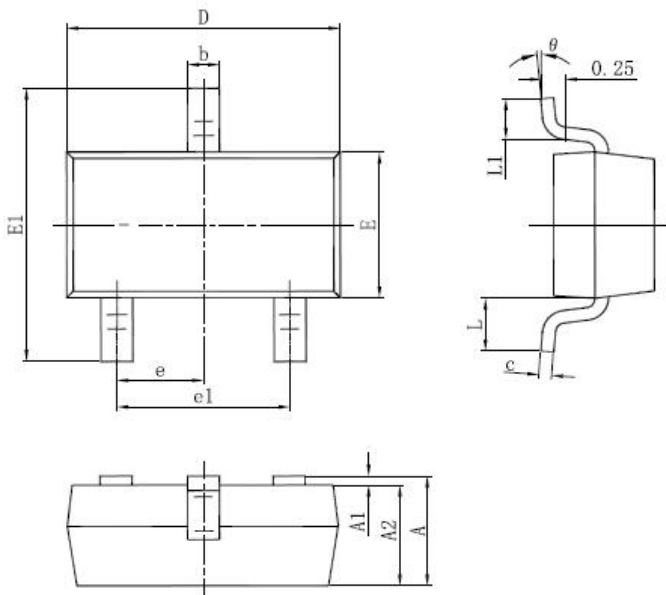
Ordering Information

Device	Package	Shipping
MMBD914	SOT-23 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

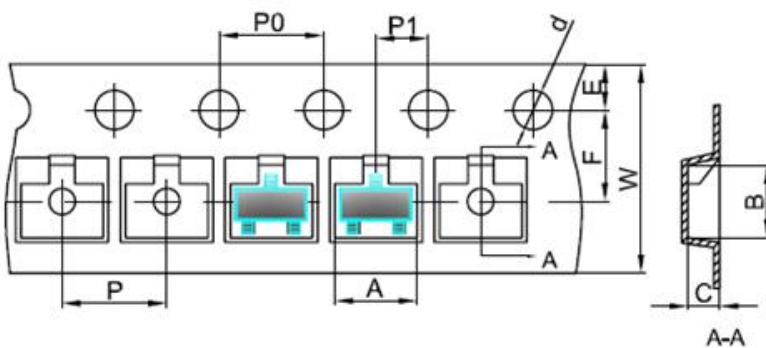
Marking Diagram


5D = Marking Code

Mechanical Dimensions SOT-23


SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.510	0.012	0.020
c	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.640	0.083	0.104
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Note: If date code is before 2016 year, please contact with factory about marking.

Carrier Tape Specification SOT-23


SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

Technical Data
Data Sheet N0599, Rev. C



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