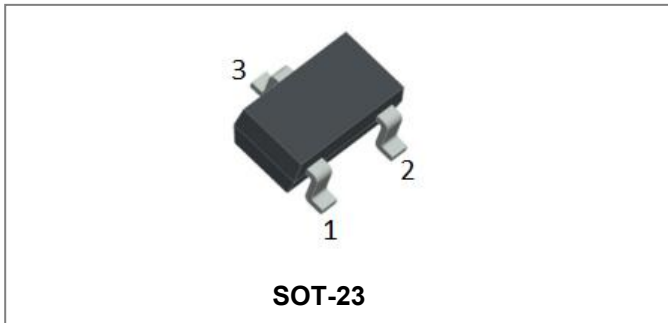


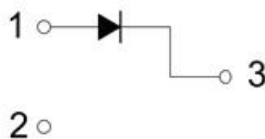
MMBD4150 SCHOTTKY BARRIER DIODE



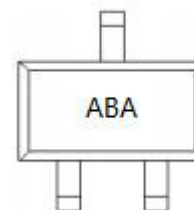
Features

- Surface mount device
- Double diodes with different pinning are available
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Marking Diagram



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

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	50	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=25^{\circ}\text{C}$, rectangular wave form	0.25	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	1 us, half Sine pulse	4	A
Power dissipation#	P_{tot}	$T_{amb} = 25^{\circ}\text{C}$	350	mW

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

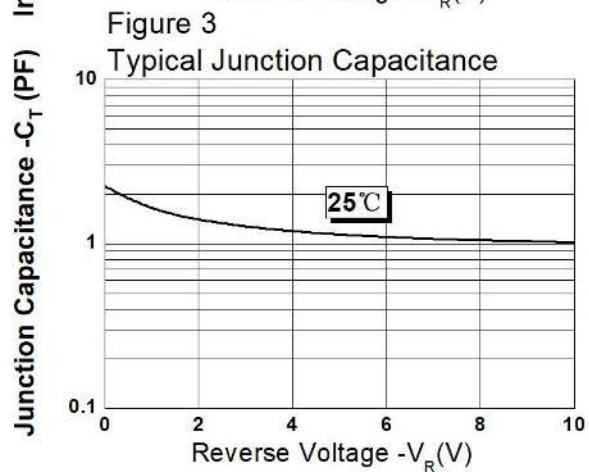
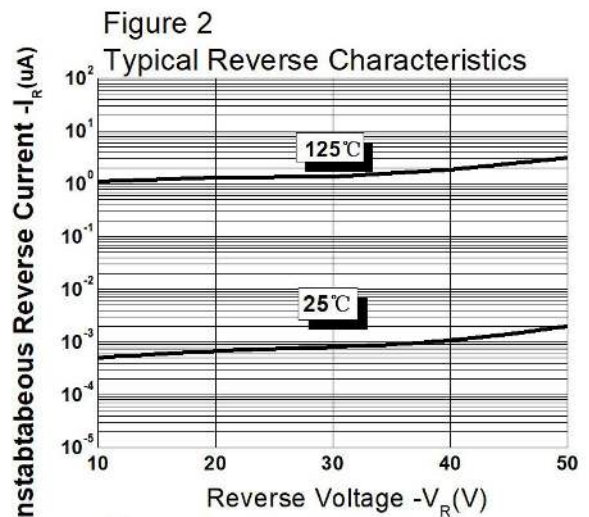
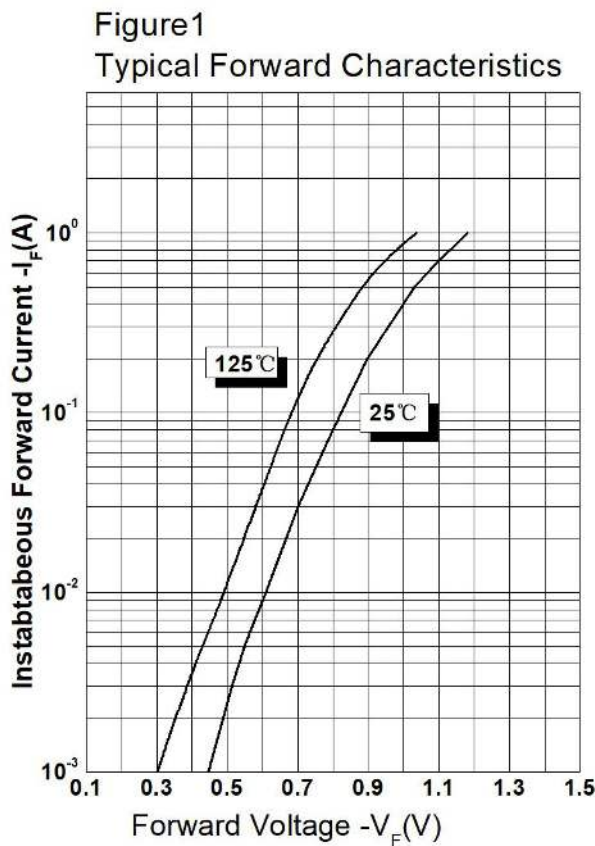
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 1mA, Pulse, $T_J = 25^{\circ}\text{C}$ @ 10mA, Pulse, $T_J = 25^{\circ}\text{C}$ @ 50mA, Pulse, $T_J = 25^{\circ}\text{C}$ @ 100mA, Pulse, $T_J = 25^{\circ}\text{C}$ @ 200mA, Pulse, $T_J = 25^{\circ}\text{C}$	0.45 0.61 0.75 0.82 0.90	0.62 0.74 0.86 0.92 1.0	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$, Pulse, $T_J = 25^{\circ}\text{C}$	0.002	0.1	μA
Junction Capacitance	C_T	@ $V_R = 0\text{ V}$, $T_c=25^{\circ}\text{C}$, fSIG = 1MHz	2.2	4	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ $I_R = 10\text{mA}$ $I_{rr} = 1\text{ mA}$ $R_L=100\Omega$ $T_J = 25^{\circ}\text{C}$	-	4	ns

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

Thermal-Mechanical Specifications

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-65 to +150	°C
Storage Temperature	T_{stg}	-	-65 to +150	°C
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	357	°C/W

Ratings and Characteristics Curves

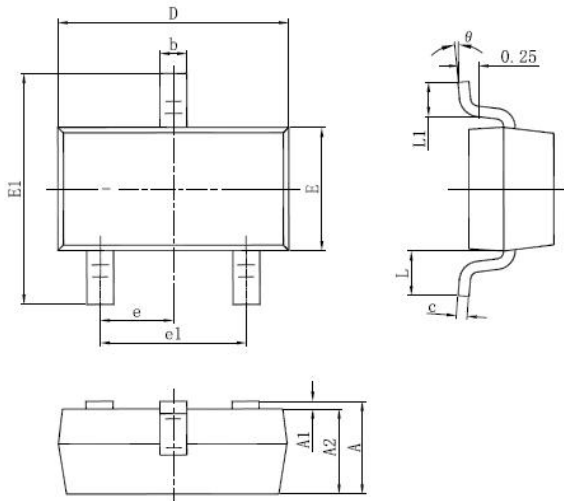


Ordering Information

Device	Package	Shipping
MMBD4150	SOT-23(Pb-Free)	3000pcs / reel

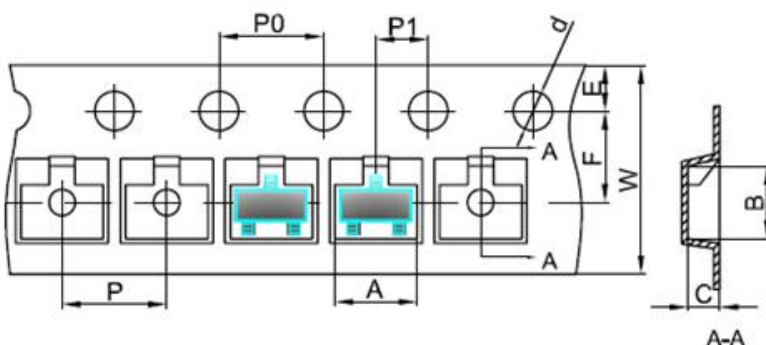
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

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	0.500	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	2.550	0.083	0.100
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°

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



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