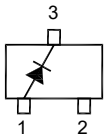


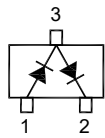
Features

- Low leakage
- For general purpose switching applications

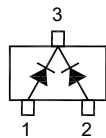
Configurations



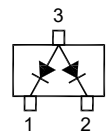
MMBD1501



MMBD1503



MMBD1504



MMBD1505



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	200	V
Working Peak Reverse Voltage	V _{RWM}	180	V
DC Blocking Voltage	V _R	200	V
Continuous Forward Current	I _F	600	mA
Average Rectified Output Current	I _{F(AV)}	200	mA
Peak Repetitive Forward Current	I _{FRM}	700	mA
Non-Repetitive Peak Forward Surge Current, @ t=1s	I _{FSM}	1	A
Non-Repetitive Peak Forward Surge Current, @ t=1ms		2	
Power Dissipation	P _D	350	mW
Thermal Resistance, Junction-to-Ambient	R _{θJA}	357	°C/W
Operating Junction Temperature Range	T _J	-65 To +150	°C
Storage Temperature Range	T _{STG}	-65 To +150	°C

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R=5\mu\text{A}$	200	-	V
Forward Voltage	V_F	$I_F=1\text{mA}$	-	0.75	V
		$I_F=10\text{mA}$	-	0.85	
		$I_F=50\text{mA}$	-	0.95	
		$I_F=100\text{mA}$	-	1.1	
		$I_F=200\text{mA}$	-	1.3	
		$I_F=300\text{mA}$	-	1.5	
Reverse Current	I_R	$V_R=180\text{V}$	-	50	nA
		$V_R=180\text{V}, T_J=150^\circ\text{C}$	-	5	μA
Total Capacitance	C_T	$V_R=0, f=1\text{MHz}$	-	4	pF

Typical Electrical Characteristic Curves

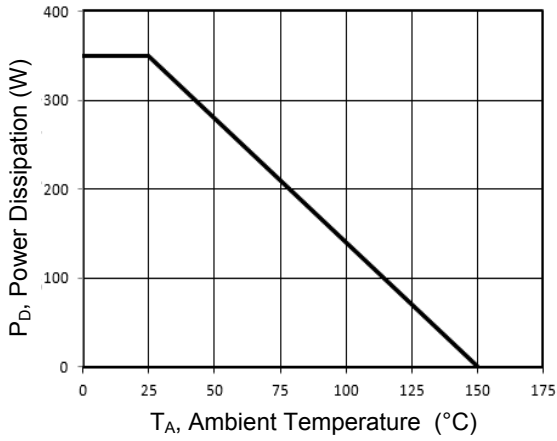


Figure 1. Power Derating Curve

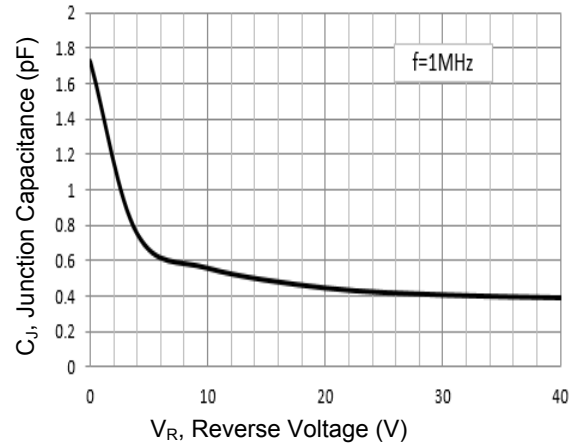


Figure 2. Capacitance Characteristics

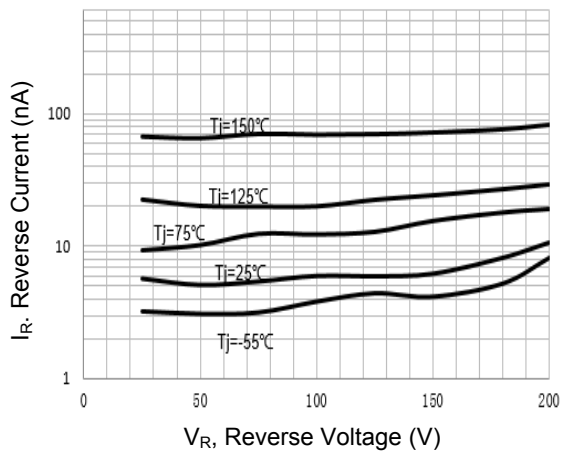


Figure 3. Reverse Characteristics

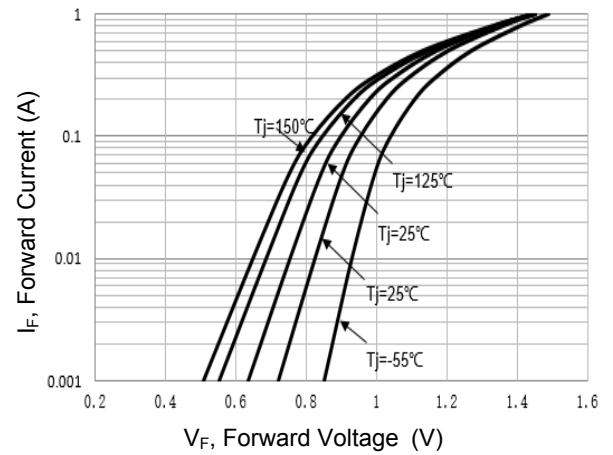
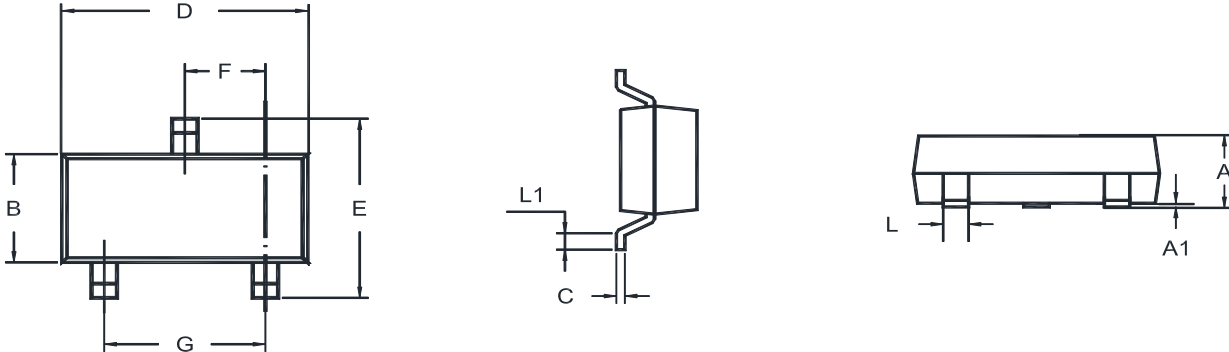


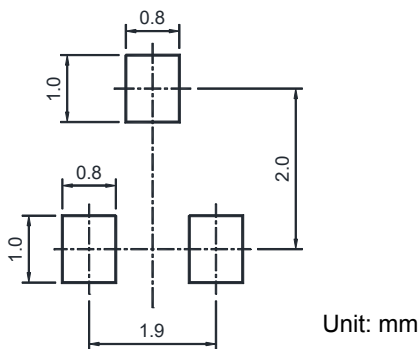
Figure 4. Forward Characteristics

Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.890	1.200	0.035	0.047
A1	0.013	0.100	0.001	0.004
B	1.200	1.400	0.047	0.055
C	0.080	0.190	0.003	0.007
D	2.800	3.040	0.110	0.120
E	2.200	2.600	0.087	0.102
F	0.890	1.020	0.035	0.040
G	1.780	2.040	0.070	0.080
L	0.370	0.510	0.015	0.020
L1	0.200 MIN		0.008 MIN	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
MMBD1501	SOT-23	WA1	Tape & Reel	3,000pcs / Reel
MMBD1503	SOT-23	WC1	Tape & Reel	3,000pcs / Reel
MMBD1504	SOT-23	WD1	Tape & Reel	3,000pcs / Reel
MMBD1505	SOT-23	WE1	Tape & Reel	3,000pcs / Reel