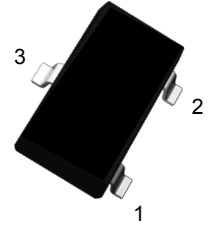


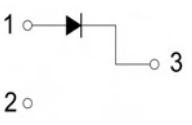
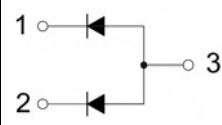
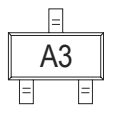
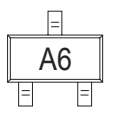
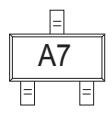
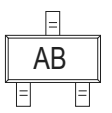
Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



SOT-523

Schematic Diagram and Marking Information

MMBD4448HT	MMBD4448HTA	MMBD4448HTC	MMBD4448HTS
			
MARKING:A3	MARKING:A6	MARKING:A7	MARKING:AB
			

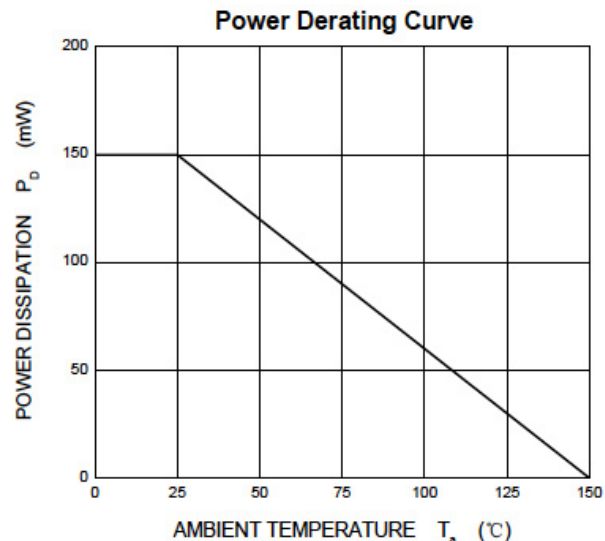
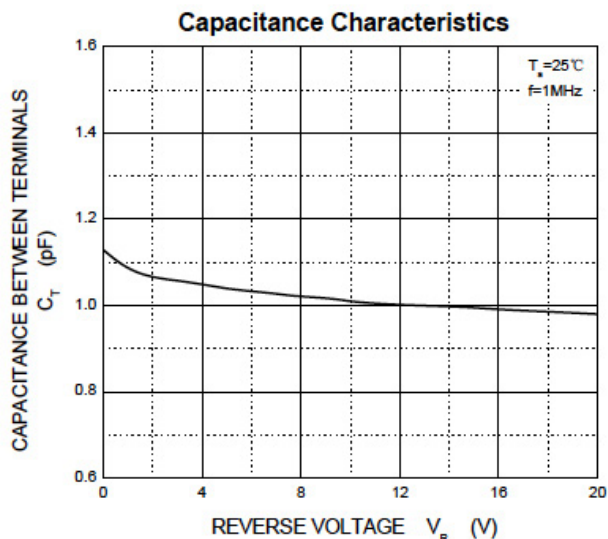
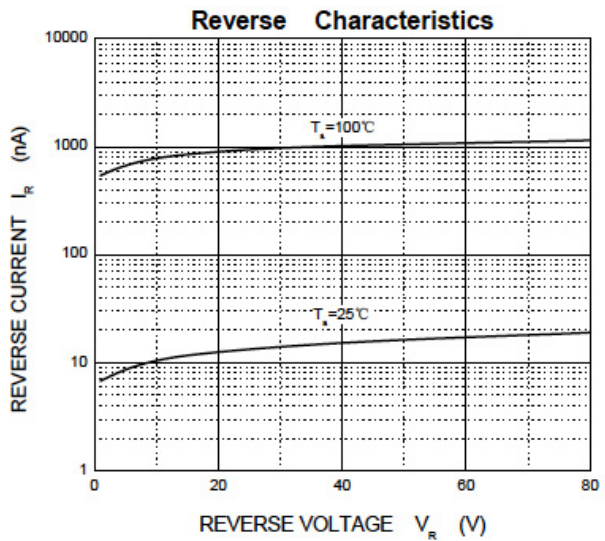
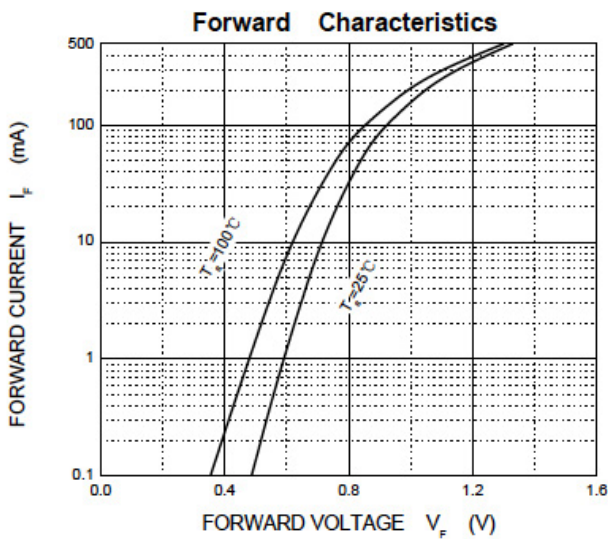
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	80	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_o	250	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2	A
Power Dissipation	P_d	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

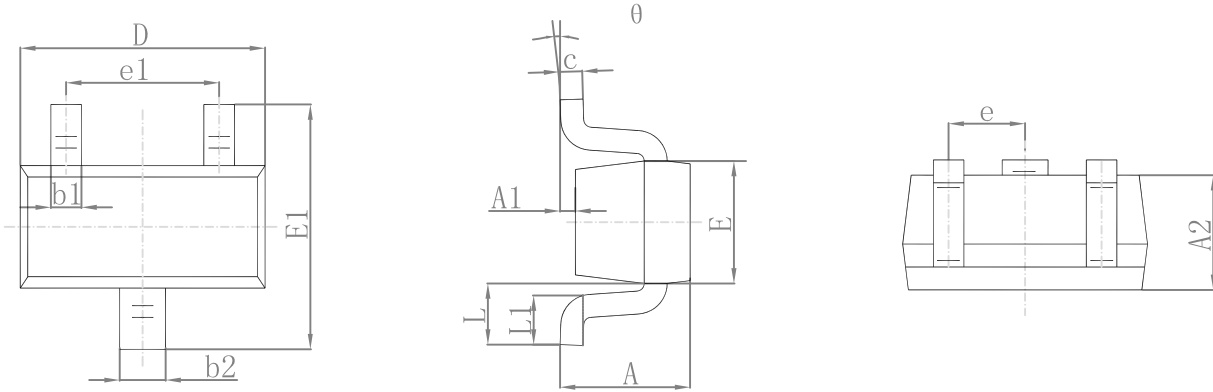
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse Breakdown Voltage	V_R	$I_R=2.5\ \mu\text{A}$	80	-	V
Forward Voltage	V_{F1}	$I_F=5\text{mA}$	0.62	0.72	V
	V_{F2}	$I_F=10\text{mA}$	-	0.855	V
	V_{F3}	$I_F=100\text{mA}$	-	1	V
	V_{F4}	$I_F=150\text{mA}$	-	1.25	V
Reverse Current	I_{R1}	$V_R=70\text{V}$	-	0.1	μA
	I_{R2}	$V_R=20\text{V}$	-	25	nA
Capacitance Between Terminals	C_T	$V_R=6\text{V}, f=1\text{MHz}$	-	3.5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$	-	4	ns

Typical Characteristics Curves

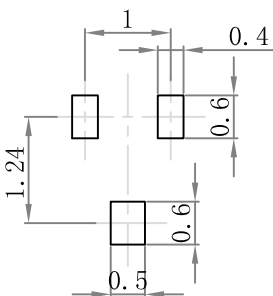


Package Outline Dimensions SOT-523



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.