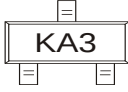
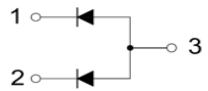
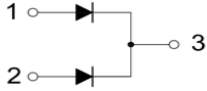
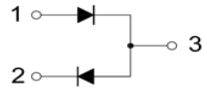
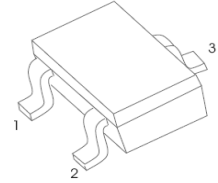


SOT-523 Plastic-Encapsulate Diodes**MMBD4148AT/CT/ST****Switching Diodes****FEATURES**

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

MARKING & Equivalent Circuit

MMBD4148AT	MMBD4148CT	MMBD4148ST
		
		

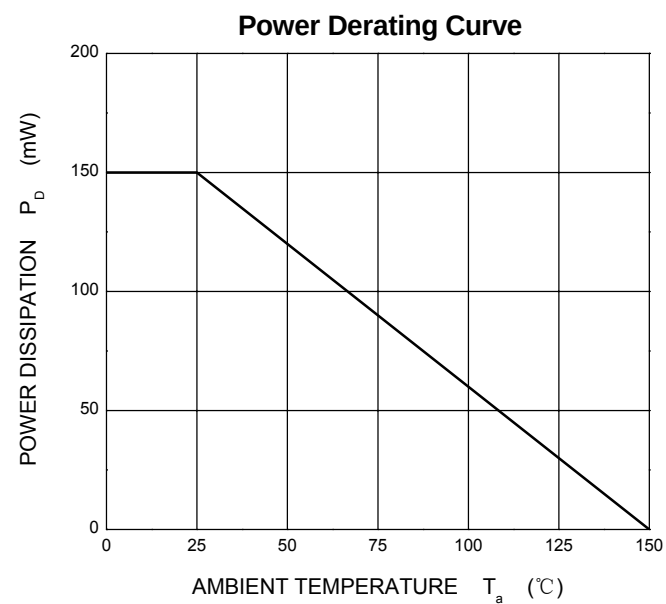
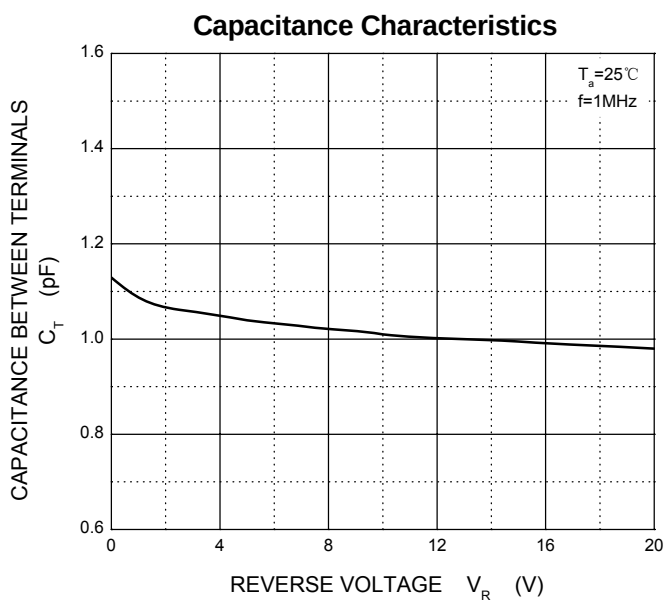
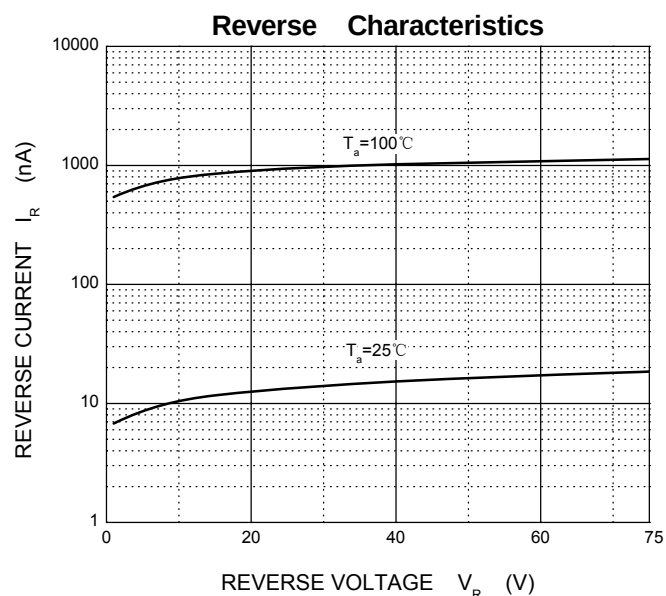
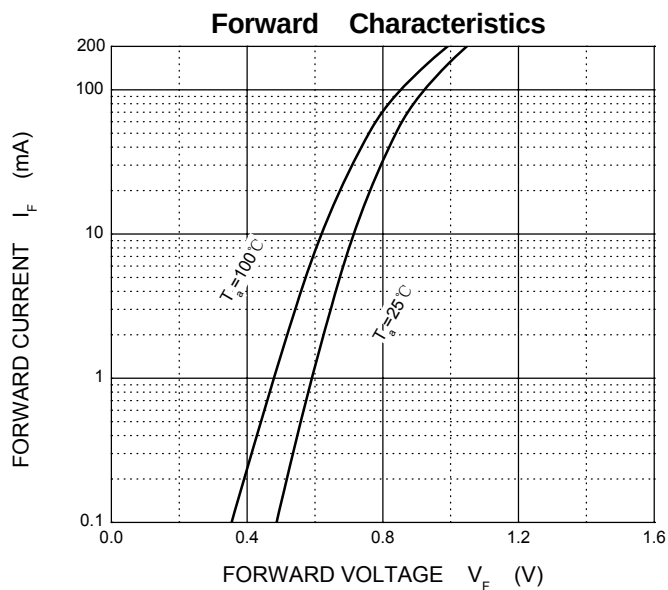
SOT-523**MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RM}	No-Repetitive Peak Reverse Voltage	100	V
V_{RWM}	Working Peak Reverse Voltage	75	V
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
I_O	Continuous Forward Current	150	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	2	A
P_D	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	833	$^{\circ}\text{C/W}$
T_j, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

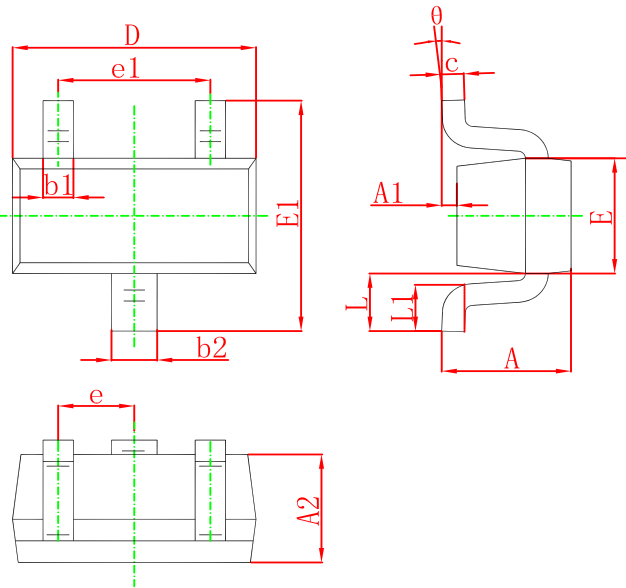
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	75			V
Reverse current	I_R	$V_R=75\text{V}$			1	μA
		$V_R=20\text{V}$			25	nA
Forward voltage	V_F	$I_F=1\text{mA}$			0.715	V
		$I_F=10\text{mA}$			0.855	V
		$I_F=50\text{mA}$			1	V
		$I_F=150\text{mA}$			1.25	V
Total capacitance	C_{tot}	$V_R=0, f=1\text{MHz}$			2	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$			4	ns

Typical Characteristics

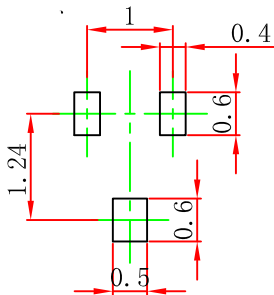


Package Outline Dimensions (SOT-523)



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
θ	0°	8°	0°	8°

Suggested Pad Layout (SOT-523)



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.