

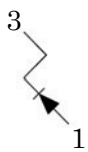
Features

- Fast switching speed
- For general purpose switching applications
- High conductance
- Low current leakage
- Small outline surface mount package
- RoHS compliant / green EMC

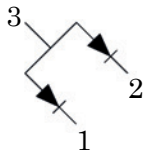


SOT-23

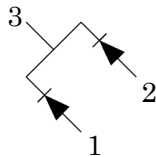
Configurations



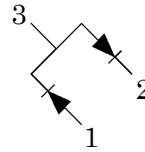
MMBD4148



MMBD4148CA



MMBD4148CC



MMBD4148SE



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

Parameter	Symbol	Value	Units
Continuous Reverse Voltage	V_R	75	V
Non Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current	I_{FM}	250	mA
Average Rectified Output Current	I_o	200	mA
Non-R Repetitive Peak Forward Surge Current @8.3mS	I_{FSM}	2	A
Power Dissipation	P_D	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_R	$I_R=100\mu\text{A}$	100	-	-	V
		$I_R=5\mu\text{A}$	75	-	-	
Forward Voltage	V_F	$I_F=1\text{mA}$	-	-	0.715	V
		$I_F=10\text{mA}$	-	-	0.855	
		$I_F=50\text{mA}$	-	-	1	
		$I_F=150\text{mA}$	-	-	1.25	
Reverse Voltage Leakage Current	I_R	$V_R=20\text{V}$	-	-	25	nA
		$V_R=75\text{V}$	-	-	1	μA
Typical Junction Capacitance	C_J	$V_R=0\text{V}, F=1.0\text{MHz}$	-	-	2	pF
Reverse Recovery Time	T_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1\text{mA}, R_L=100\Omega$	-	-	4	nS

Typical Electrical Characteristic Curves

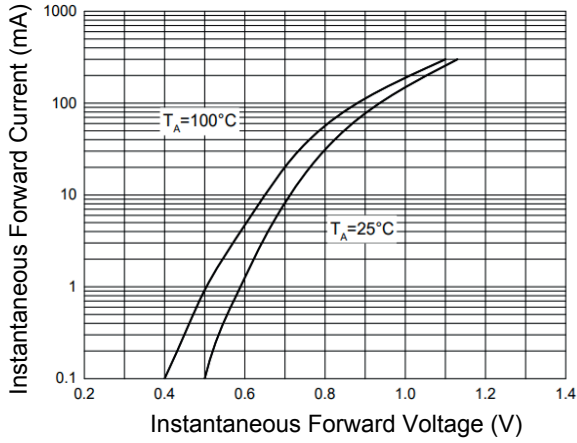


Figure 1. Typical Instantaneous Forward Characteristics

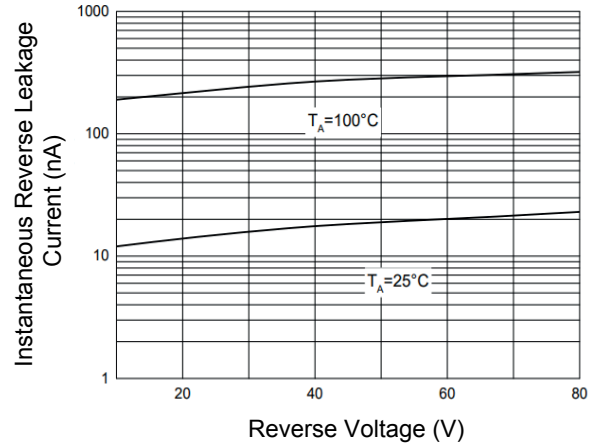


Figure 2. Typical Reverse Leakage Characteristics

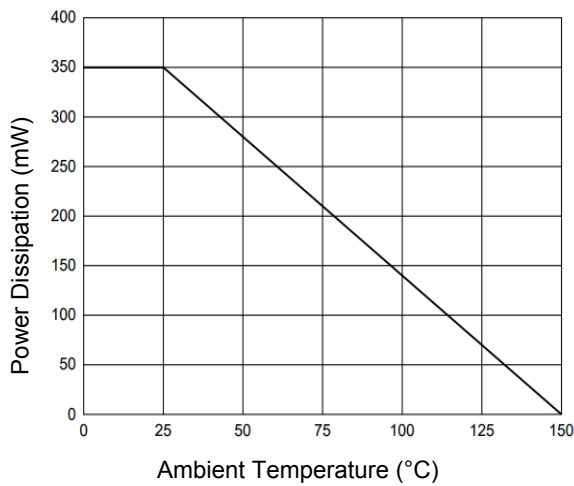


Figure 3. Power Derating Curve

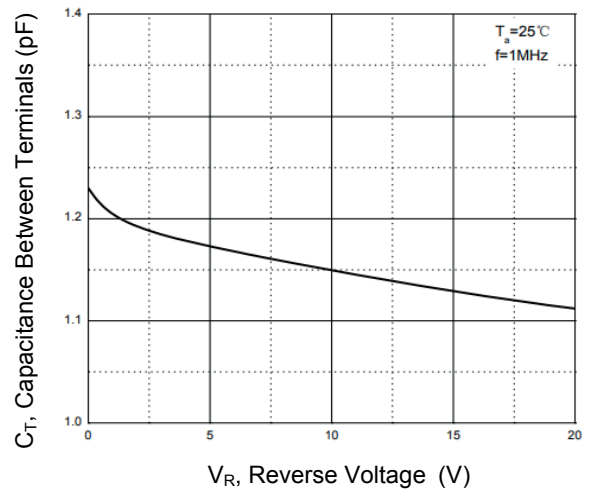
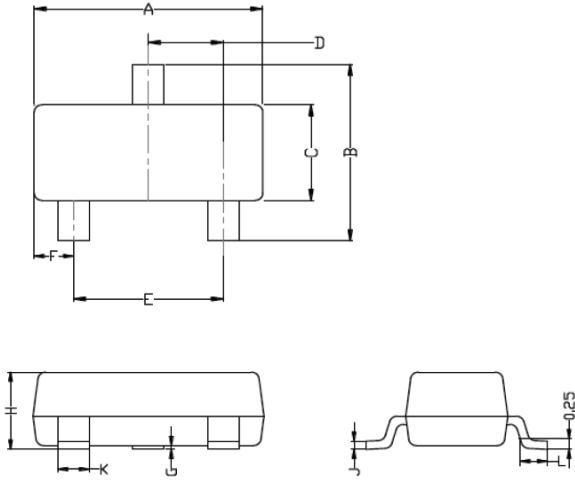


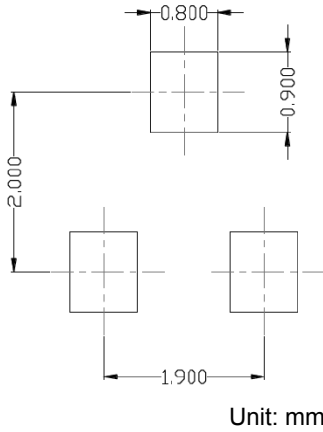
Figure 4. Capacitance Characteristics

Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.800	3.040	0.110	0.120
B	2.100	2.640	0.083	0.104
C	1.200	1.400	0.047	0.055
D	0.890	1.030	0.035	0.041
E	1.780	2.050	0.070	0.081
F	0.450	0.600	0.018	0.024
G	0.013	0.100	0.001	0.004
H	0.900	1.110	0.035	0.044
J	0.085	0.180	0.003	0.007
K	0.370	0.510	0.015	0.020
L	0.300	0.500	0.012	0.020

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
MMBD4148	SOT-23	KA2	Tape & Reel	3,000pcs / Reel
MMBD4148CA	SOT-23	D6	Tape & Reel	3,000pcs / Reel
MMBD4148CC	SOT-23	D5	Tape & Reel	3,000pcs / Reel
MMBD4148SE	SOT-23	D4	Tape & Reel	3,000pcs / Reel