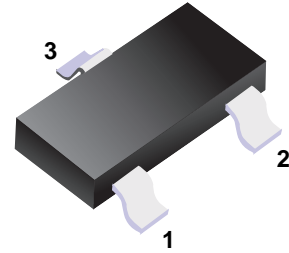


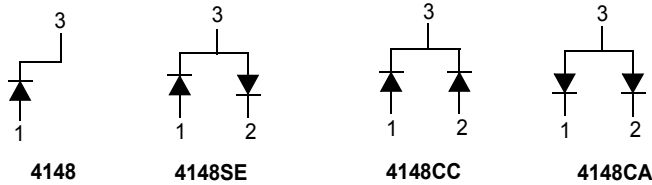
■ Switching Diodes

Features

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



■ Simplified outline(SOT-23)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75	
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>RMS</sub>	53	mA
Average Rectified Output Current	I <sub>O</sub>	150	
Peak Forward Surge Current	I <sub>FM</sub>	300	A
Peak Forward Surge Current @ t=1μs	I <sub>FSM</sub>	2	
@ t=1s		1	
Power Dissipation	P <sub>d</sub>	350	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	357	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150	

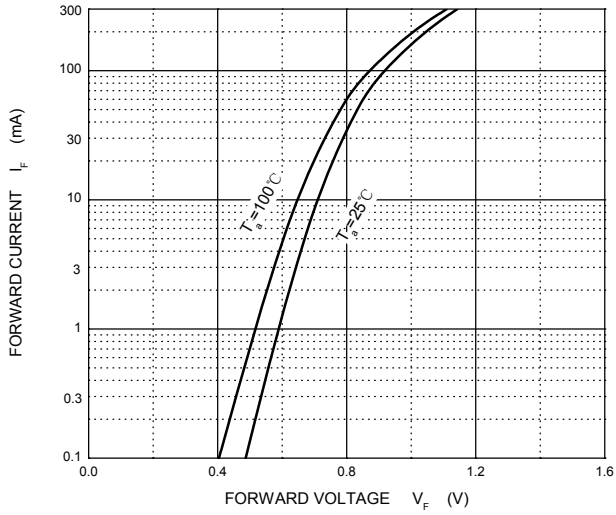
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V <sub>R</sub>	I <sub>R</sub> = 100 μA	75			V
Forward voltage	V <sub>F1</sub>	I <sub>F</sub> = 1 mA			0.715	
	V <sub>F2</sub>	I <sub>F</sub> = 10 mA			0.855	
	V <sub>F3</sub>	I <sub>F</sub> = 50 mA			1	
	V <sub>F4</sub>	I <sub>F</sub> = 150 mA			1.25	
Reverse voltage leakage current	I <sub>R1</sub>	V <sub>R</sub> = 75 V			2.5	μA
	I <sub>R2</sub>	V <sub>R</sub> = 20 V			25	nA
Capacitance between terminals	C <sub>T</sub>	V <sub>R</sub> = 0 V, f= 1 MHz			2	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1xI <sub>R</sub> , R <sub>L</sub> =100Ω			4	ns

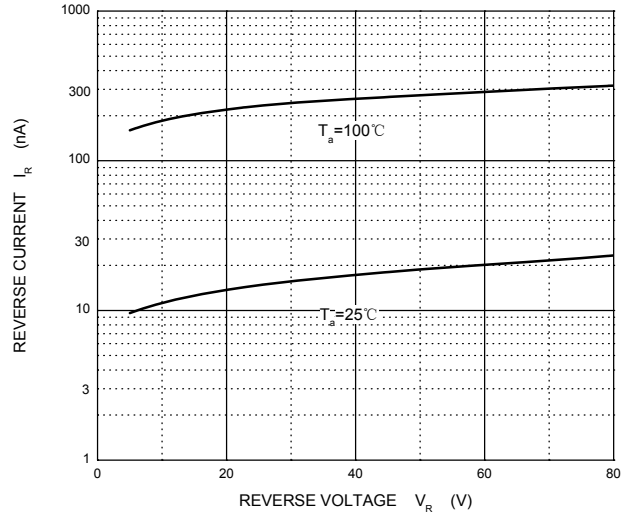
■ Marking

NO	MMBD4148	MMBD4148SE	MMBD4148CC	MMBD4148CA
Marking	A6	D4	D5	D6

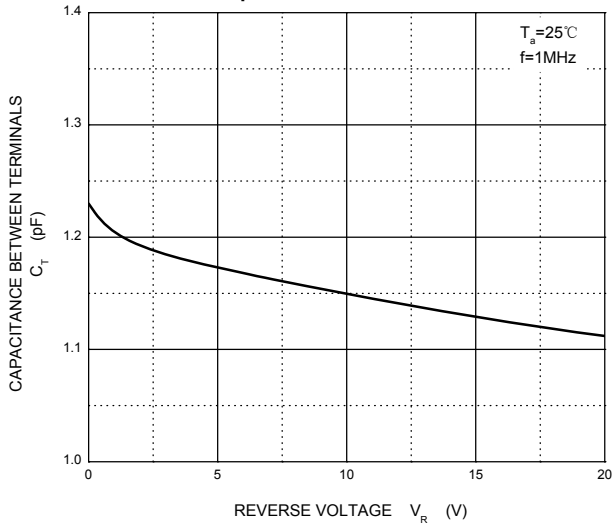
■ Typical Characteristics



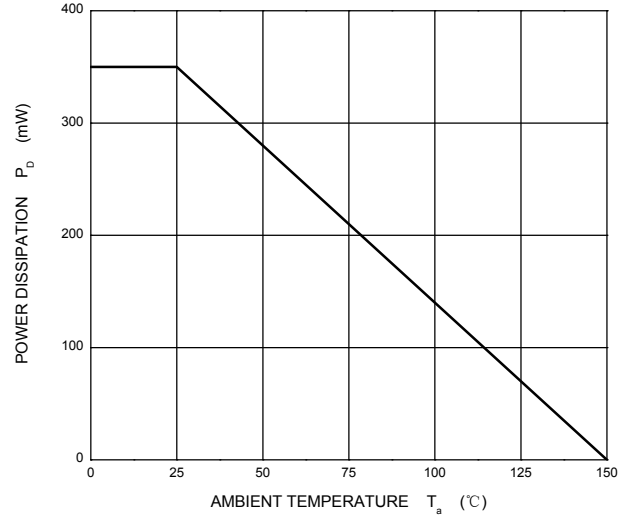
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



**Package Outline**

**SOT-23**



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1