

Switching Diode

250mW 100V, SOT-23

MMBD4148x series

MERITEK

FEATURES

- Operating and storage temperature: -55°C ~ 150°C
- Ideal for Low Power Amplification and Switching



MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	1
		at $t = 1\text{ }\mu\text{s}$	2
Total Power Dissipation	P_{TOT}	350	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS

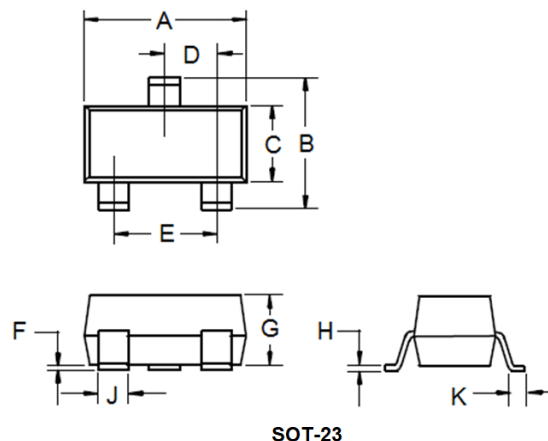
Parameter	Symbol	Min.	Max	Unit
Forward Voltage $I_F=10\text{mA}$	V_F	-	1.0	V
Reverse Breakdown Voltage $I_R=100\mu\text{A}$ $I_R=5\mu\text{A}$	$V_{BR(R)}$	100	-	V
		75	-	
Reverse Current $V_R=20\text{V}$ $V_R=75\text{V}$	I_R	-	25	nA
		-	5.0	μA
Diode Capacitance $V_R=0\text{V}, f=1\text{MHz}$	C_D	-	4.0	pF
Reverse Recovery Time $I_F=10\text{mA}, V_R=6\text{V}, I_{RR}=1\text{mA}, R_L=100\Omega$	T_{1T}	-	4.0	nS

Notes:

1. Device mounted on FR4 glass epoxy printed circuit board using the minimum recommended footprint
2. Pulse Test: Pulse Width <300 μs , Duty Cycle<2.0% 3. $T_A=25^\circ\text{C}$ unless otherwise noted

DIMENSIONS

Item	Min (mm)	Max (mm)
A	2.70	3.10
B	2.1	2.8
C	1.20	1.60
D	0.89	1.02
E	1.70	2.10
F	0.013	0.150
G	0.89	1.40
H	0.05	0.20
J	0.30	0.51
K	0.15	-



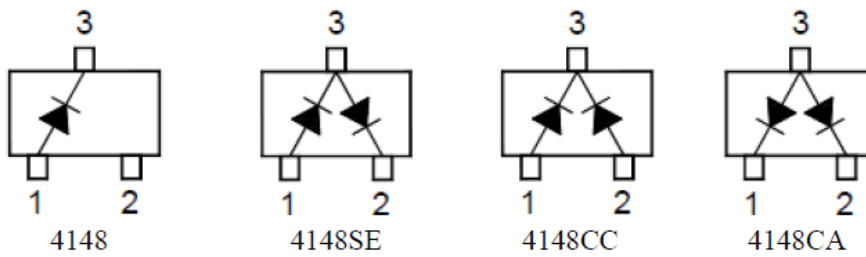
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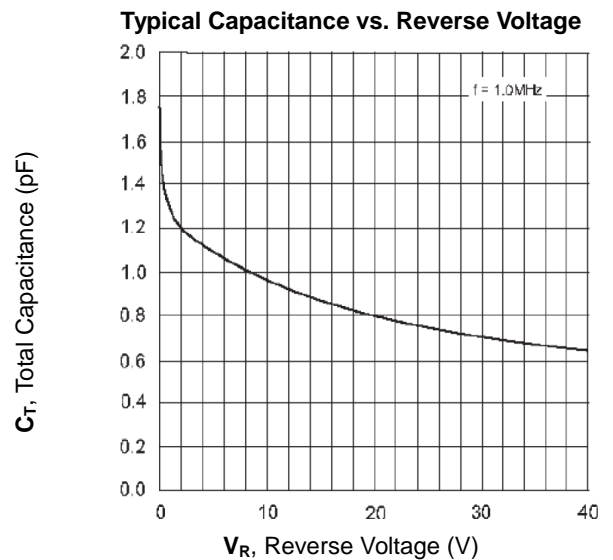
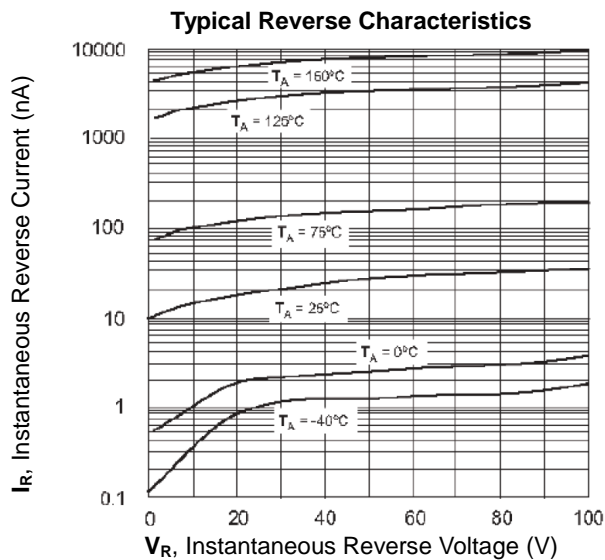
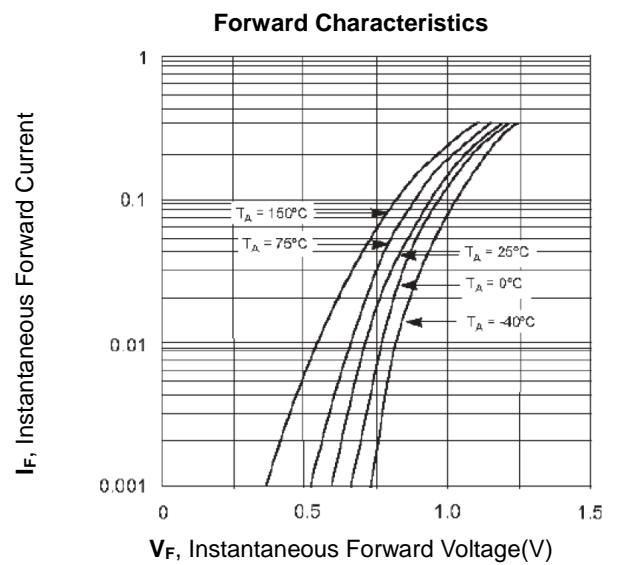
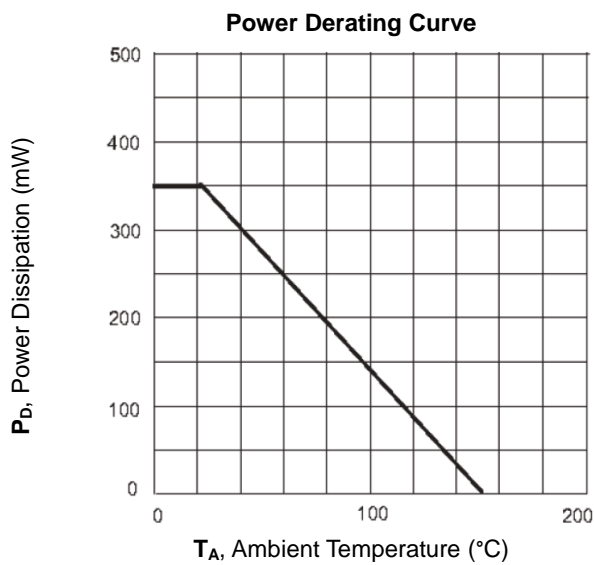
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PIN CONFIGURATION



CHARACTERISTIC CURVES



*Specifications subject to change without notice.