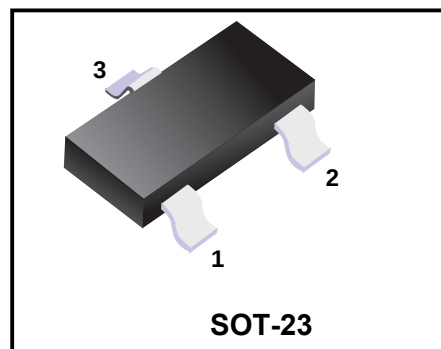
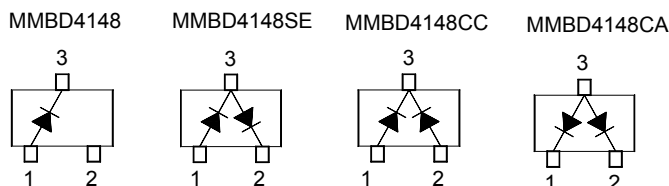


Silicon Epitaxial Planar Switching Diode



Product Specification Classification

Part Number	Package	Marking	Pack
MMBD4148	SOT-23	5H	3000PCS/Tape
MMBD4148SE	SOT-23	D4	3000PCS/Tape
MMBD4148CC	SOT-23	D5	3000PCS/Tape
MMBD4148CA	SOT-23	D6	3000PCS/Tape

Absolute Maximum Ratings (Ta = 25°C)

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
DC Forward Current	I_{FM}	600	mA
Recurrent Peak Forward Current	I_{FRM}	700	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1 2	A
		at t = 1 s at t = 1 μ s	
Total Device Dissipation	P_{tot}	350	mW
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10$ mA	V_F	-	1	V
Reverse Breakdown Voltage at $I_R = 100$ μ A at $I_R = 5$ μ A	$V_{(BR)R}$	100 75	- -	V
Reverse Current at $V_R = 20$ V at $V_R = 75$ V at $V_R = 20$ V, $T_a = 150$ °C	I_R	- - -	25 5 50	nA μ A μ A
Reverse Recovery Time at $I_F = 10$ mA, $V_R = 6$ V, $I_{RR} = 1$ mA, $R_L = 100$ Ω	t_{rr}	-	4	ns
Total Capacitance at $V_R = 0$ V, $f = 1$ MHz	C_T	-	4	pF

Typical Characteristics

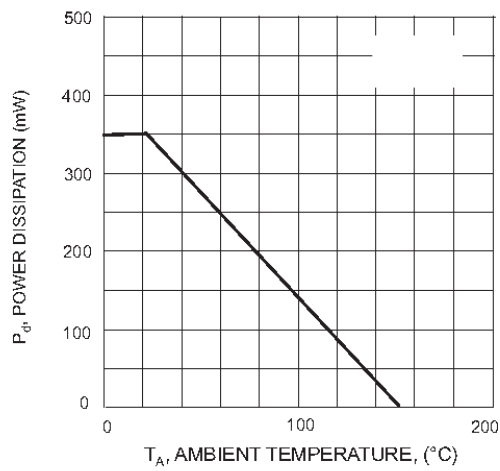


Fig. 1 Power Derating Curve

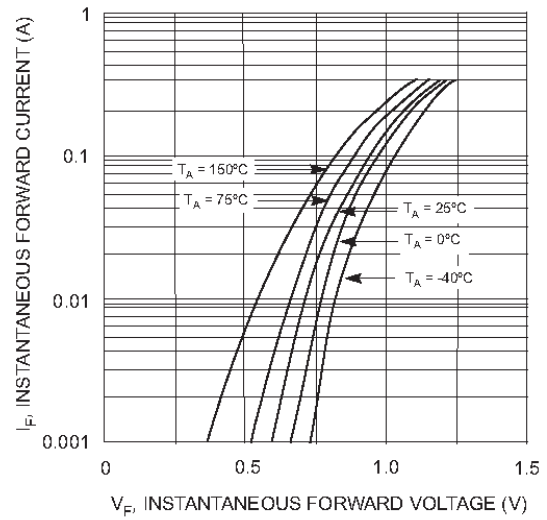


Fig. 2 Forward Characteristics

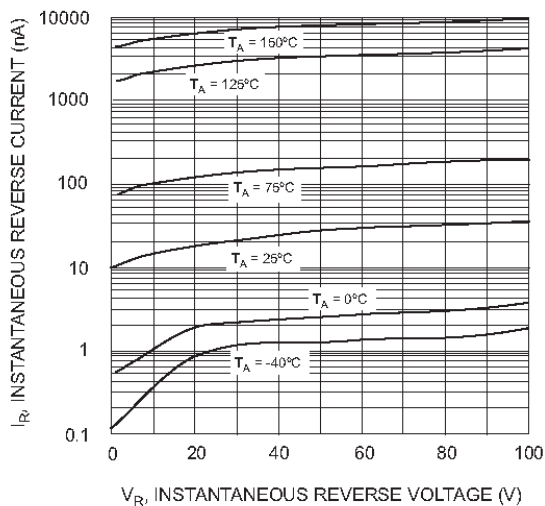


Fig. 3 Typical Reverse Characteristics

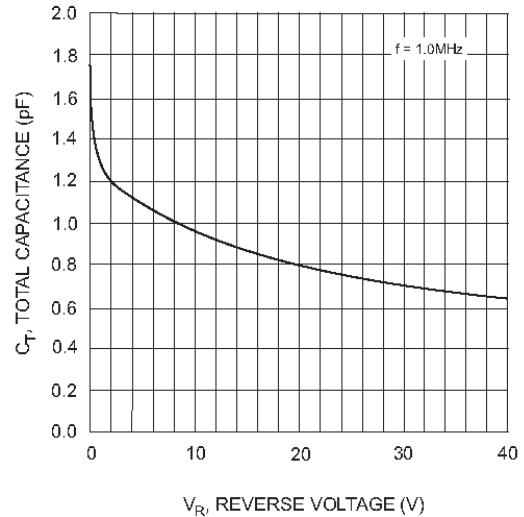
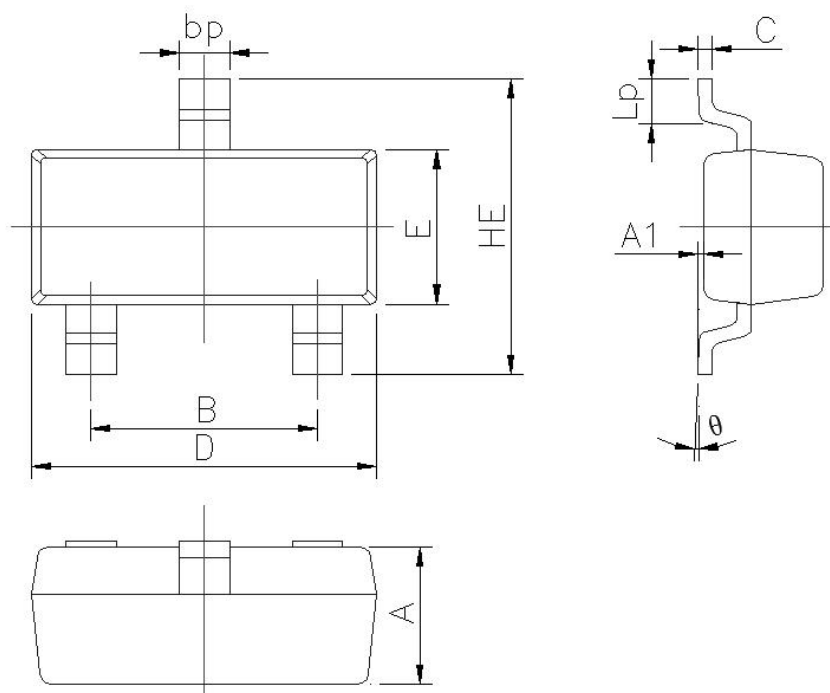


Fig. 4 Typical Capacitance vs. Reverse Voltage

Package Outline

SOT-23

Plastic surface mounted package; 3 leads



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.10
A1	0.013	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.09	0.150
D	2.80	3.00
E	1.20	1.40
HE	2.20	2.80
Lp	0.20	0.50
θ	0°	5°