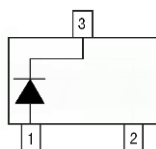
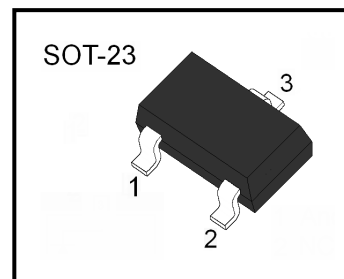


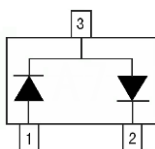
Surface Mount Switching Diode

Features

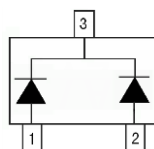
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



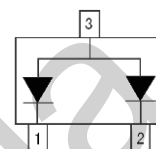
MMBD4148
Marking : 5H



MMBD4148SE
Marking : D4



MMBD4148CC
Marking : D5



MMBD4148CA
Marking : D6

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

Parameter		Symbol	Values	Units
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	Pulse Width = 1.0 s	I_{FSM}	1.0	A
	Pulse Width = 1.0 ms		2.0	
Power dissipation $T_S \leq 55^\circ\text{C}$		P_D	350	mW
Operating temperature range		T_j	-55~150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-55~150	$^\circ\text{C}$
Thermal resistance, junction to ambient		$R_{\theta JA}$	357	K/W

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

Parameter	Symbol	Test Conditions	Min.	Typ	Max.	Units
Reverse breakdown voltage	V_R	$I_R = 5.0\mu\text{A}$ $I_R = 100\mu\text{A}$	75 100			V
Forward voltage, per diode	V_F	$I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 150\text{ mA}$			0.715 0.855 1.00 1.25	V
Reverse Leakage, per diode	I_R	$V_R = 20\text{V}$ $V_R = 20\text{V}, T_A = 150^\circ\text{C}$ $V_R = 75\text{V}$			25 50 5.0	nA μA μA
Capacitance between terminals	C_T	$V_R = 0\text{ V}, f = 1.0\text{ MHz}$			4.0	pF
Reverse-recovery time, per diode	t_{rr}	$I_F = 10\text{ mA}, V_R = 6\text{ V}$ $I_{RR} = 1.0\text{ mA}, R_L = 100\ \Omega$			4.0	ns

Typical Characteristics

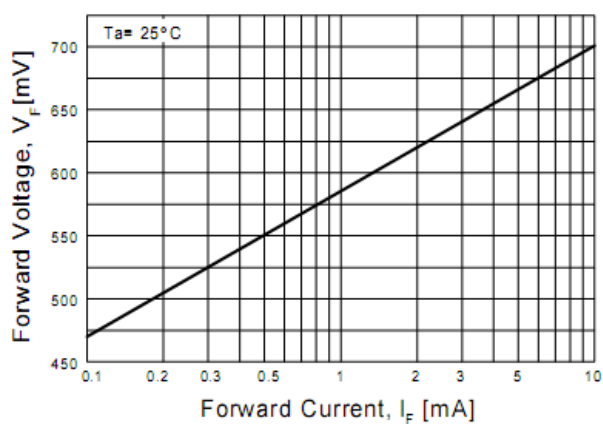


Figure 1. Forward Characteristics

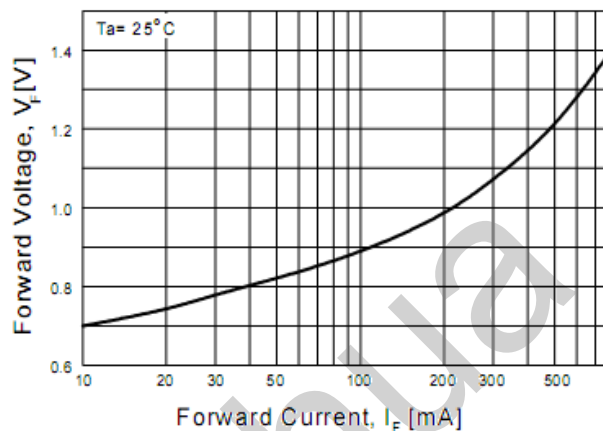


Figure 2. Forward Characteristics

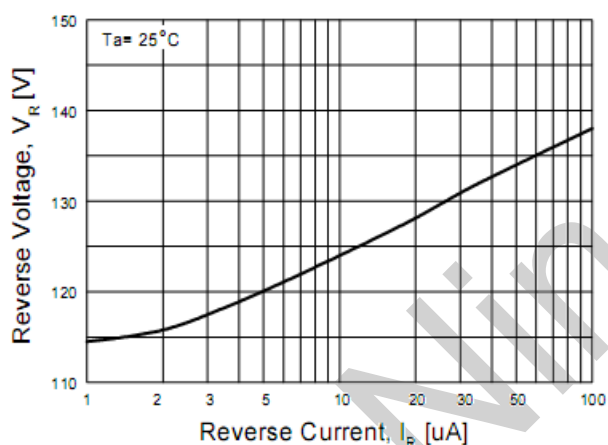


Figure 3. Reverse Characteristics

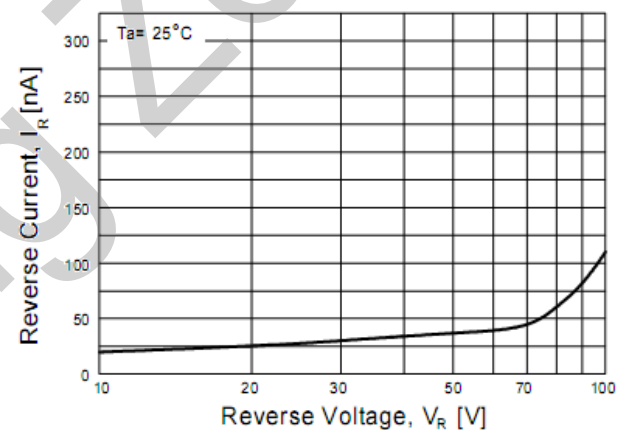


Figure 4. Reverse Characteristics

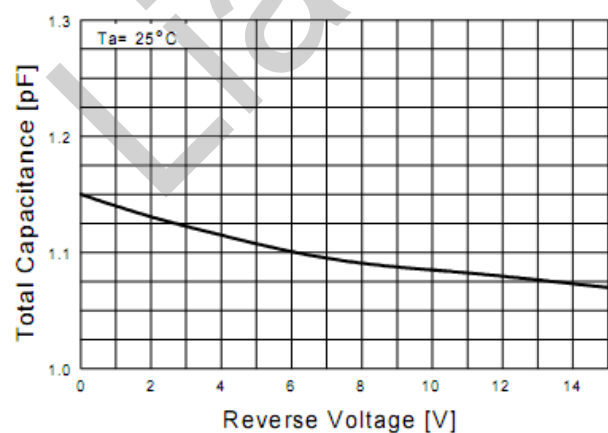


Figure 5. Capacitance Characteristics

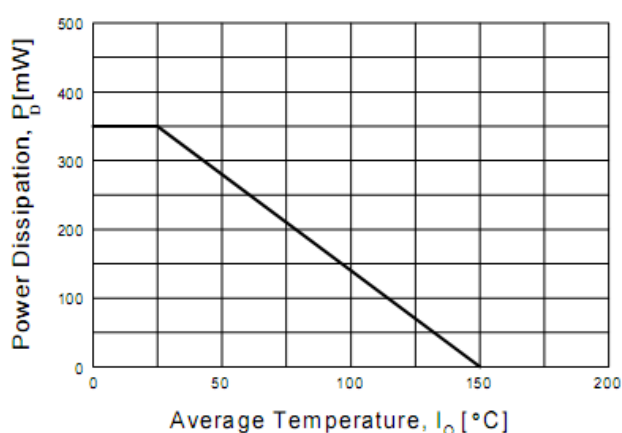


Figure 6. Power Derating Curve

Package Dimensions

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.15	0.035	0.045
A1	0.00	0.10	0.000	0.004
A2	0.90	1.05	0.035	0.041
b	0.30	0.50	0.012	0.020
c	0.08	0.15	0.003	0.006
D	2.80	3.00	0.110	0.118
E	1.20	1.40	0.047	0.055
E1	2.25	2.55	0.089	0.100
e	0.90	1.00	0.035	0.039
e1	1.80	2.00	0.071	0.079
L	0.50	0.60	0.020	0.024
L1	0.30	0.50	0.012	0.020