

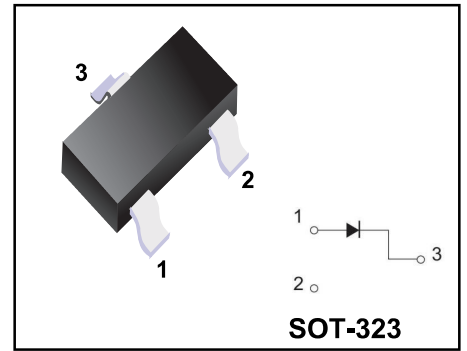
Small-Signal Fast Switching Diodes

FEATURES

- ◆Case: SOT-323
- ◆Epoxy meets UL-94 V-0 flammability rating and halogen free
- ◆Moisture Sensitivity Level 3
- ◆High temperature soldering guaranteed 260°C/10seconds at terminals

APPLICATION

- ◆Extreme fast switches
- ◆Automotive



Marking Code	
MMBD4148W	A2

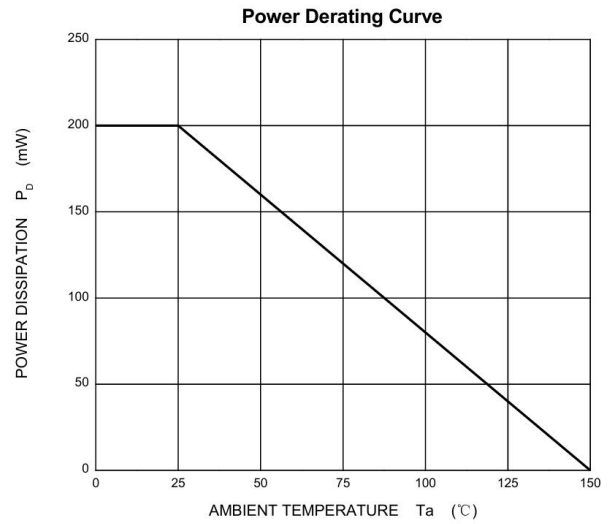
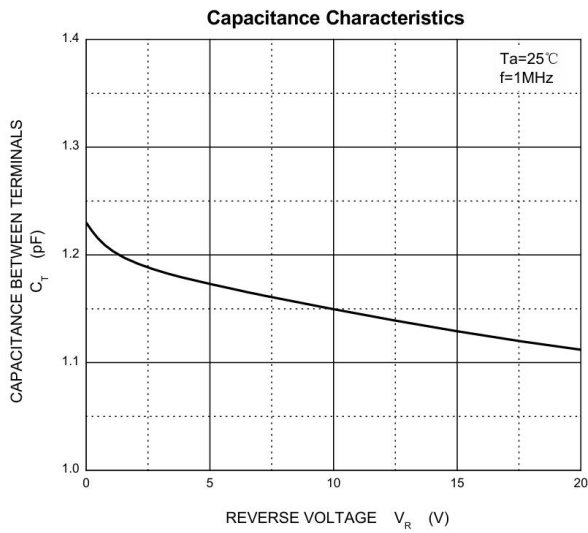
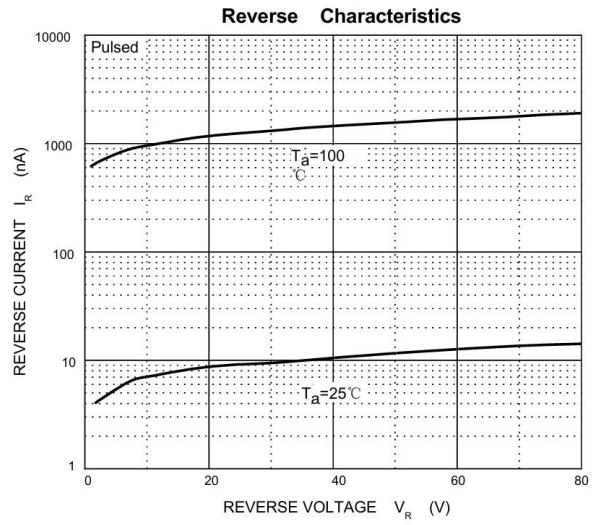
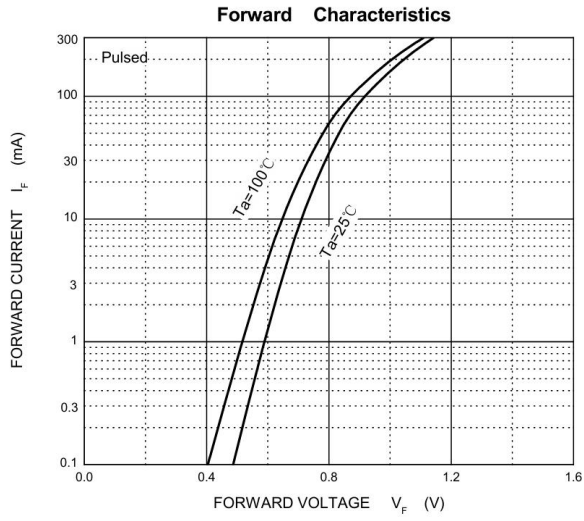
Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbols	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55-+150	°C

Electrical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R=10\mu A$	V_R	75			V
Maximum forward voltage	$I_F=1mA$	V_{F1}			0.715	V
	$I_F=10mA$	V_{F2}			0.855	
	$I_F=50mA$	V_{F3}			1.0	
	$I_F=150mA$	V_{F4}			1.25	
Maximum reverse current	$V_R=75V$	I_{R1}			1	μA
	$V_R=20V$	I_{R2}			25	nA
Type junction capacitance	$V_R=0V, f=1MHz$	C_T			2	pF
Reverse Recovery time	$I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100\Omega$	t_{rr}			4	ns

Typical Characteristics



Ordering information

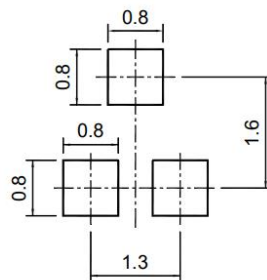
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
e	1.3		51	
e1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



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