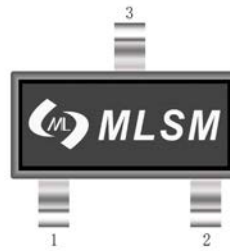


Features

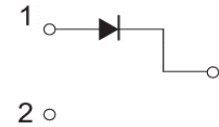
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



Marking and pin assignment



SOT-23 top



Schematic diagram



Halogen-Free

Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Limit	Unit
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Peak Repetitive Peak Reverse Voltage	75	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
I_{FM}	Forward Continuous Current	300	mA
I_O	Average Rectified Output Current	150	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	2	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	357	$^{\circ}\text{C/W}$
T_J, T_{STG}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

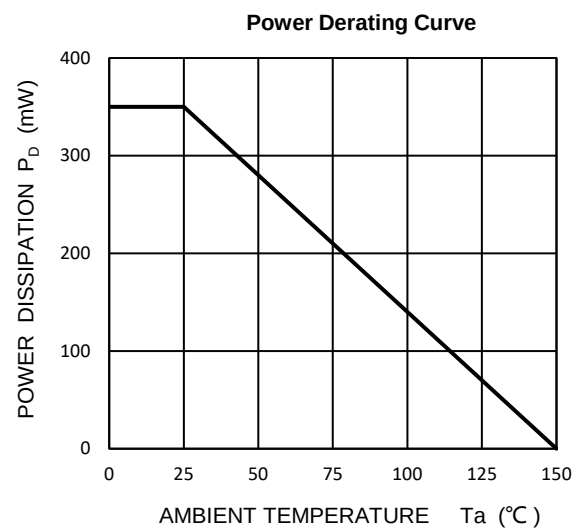
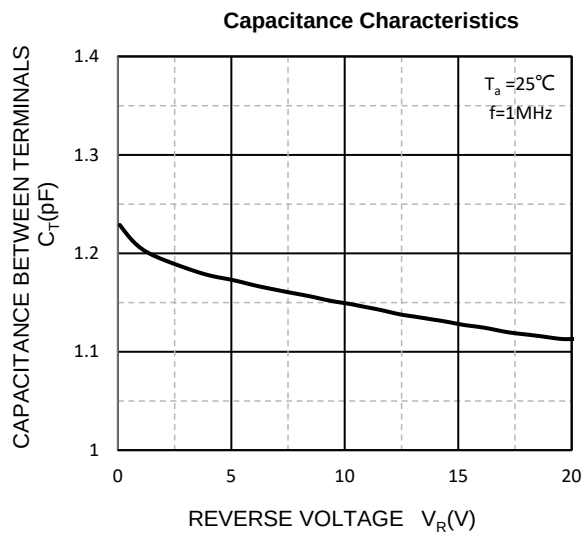
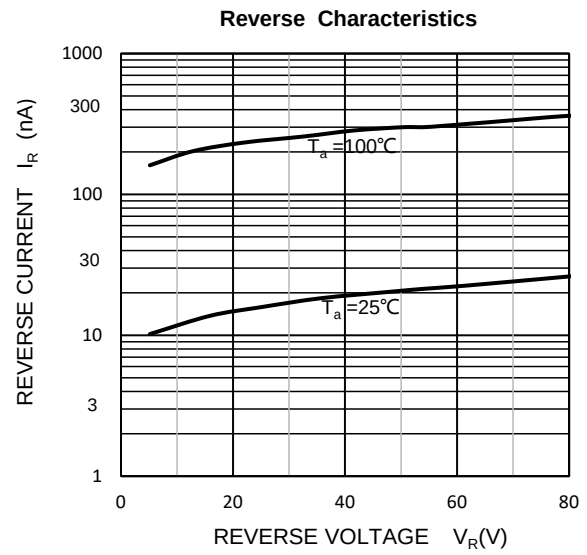
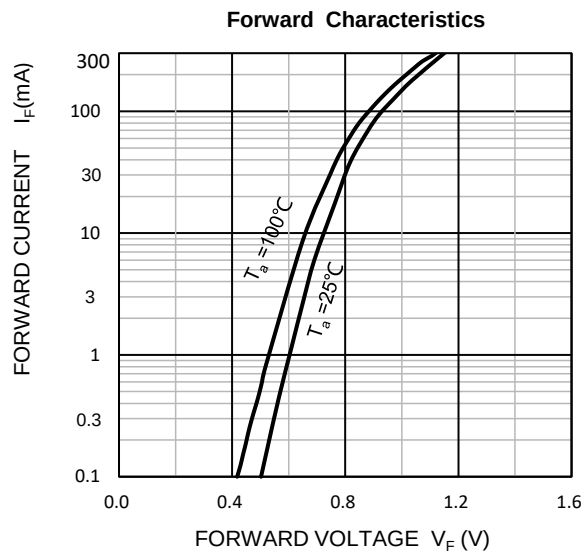
Electrical Ratings @ $T_a=25^{\circ}\text{C}$

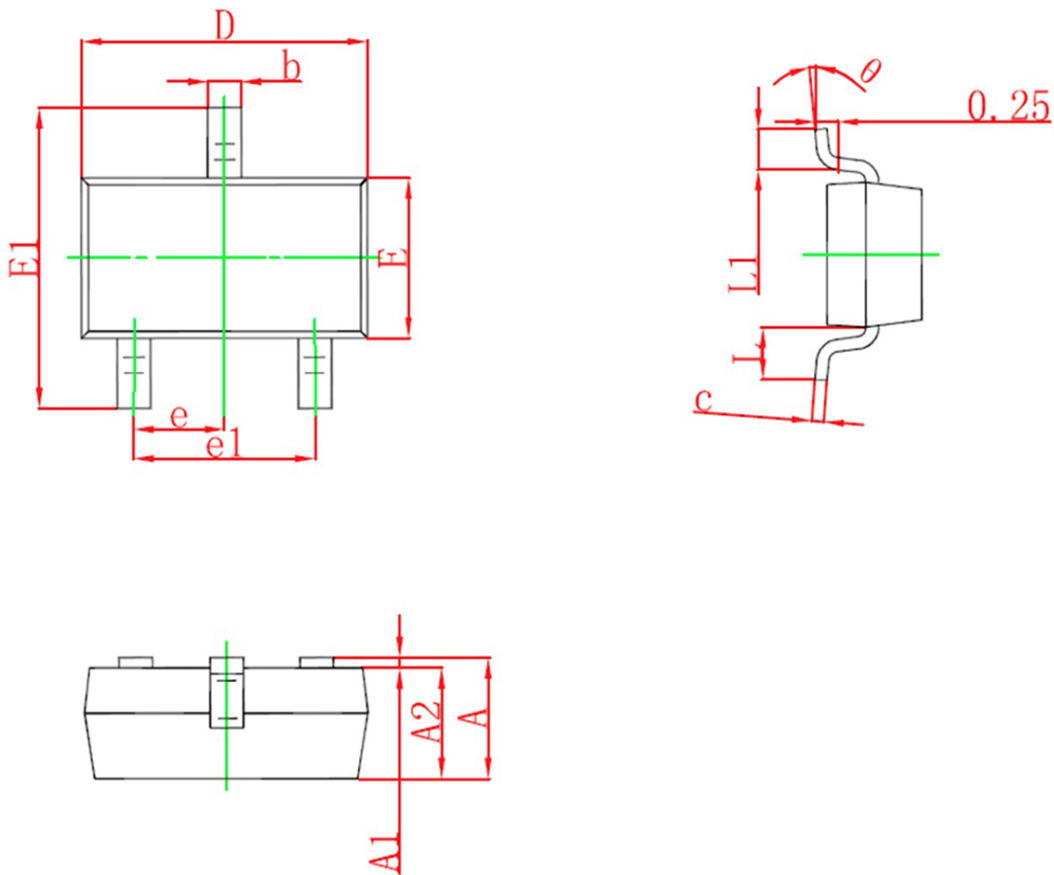
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	$I_R=100\mu\text{A}$	75	--	--	V
V_{F1}	Forward voltage	$I_F=1\text{mA}$	--	--	0.715	V
V_{F2}		$I_F=10\text{mA}$	--	--	0.855	V
V_{F3}		$I_F=50\text{mA}$	--	--	1.000	V
V_{F4}		$I_F=150\text{mA}$	--	--	1.250	V
I_{R1}	Reverse current	$V_R=75\text{V}$	--	--	2.5	μA
I_{R2}		$V_R=20\text{V}$	--	--	25	nA
C_T	Capacitance between terminals	$V_R=0\text{V}, f=1\text{MHz}$	--	--	2	pF
t_{rr}	Reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1I_R, R_L=100\Omega$	--	--	4	ns

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MMBD4148	SOT-23	KA2	3,000	45,000	180,000	7"reel

Typical Operating Characteristics



SOT-23 Package information


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°