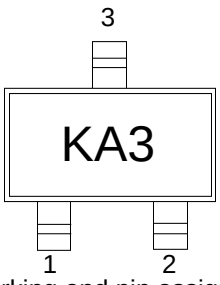
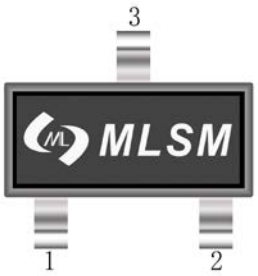
Features

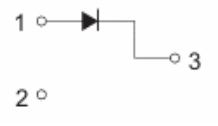
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance



Marking and pin assignment



SOT-23 top view



Schematic diagram

Pb-Free RoHS Halogen-Free

Maximum Ratings(T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V_R	DC Blocking Voltage	75	V
V_{RRM}	Working Peak Reverse Voltage		
V_{RWM}	DC Blocking Voltage		
I_{FM}	Forward Continuous Current	500	mA
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
Io	Average Rectified Output Current	250	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	357	℃/W
T_J , T_{STG}	Operating and Storage Temperature Range	-55~ +150	℃

ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

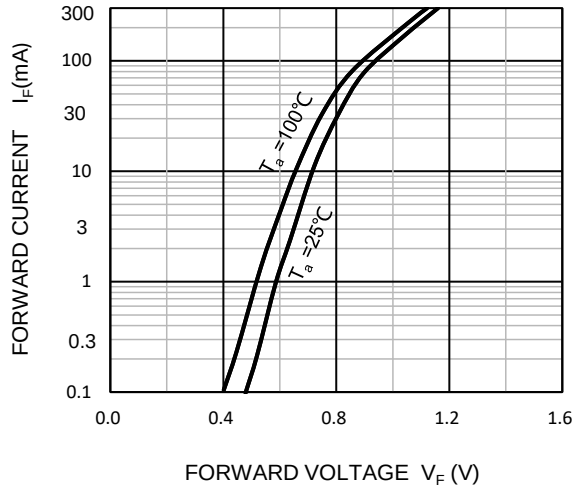
Symbol	Parameter	Condition	Min	Typ	Max	Unit
I_{R1}	Reverse current	V_R=75V	--	--	2.5	μA
I_{R2}		V_R=20V	--	--	25	nA
V_{F1}	Forward voltage	I_F=5mA	0.620	--	0.720	V
V_{F2}		I_F=10mA	--	--	0.855	V
V_{F3}		I_F=100mA	--	--	1.000	V
V_{F4}		I_F=150mA	--	--	1.250	V
C_T	Capacitance between terminals	V_R=0,f=1MHz	--	--	4	pF
t_{rr}	Reverse recovery time	I_F= I_R =10mA, I_{rr}=0.1XI_R,R_L=100Ω	--	--	4	ns

Ordering Information (Example)

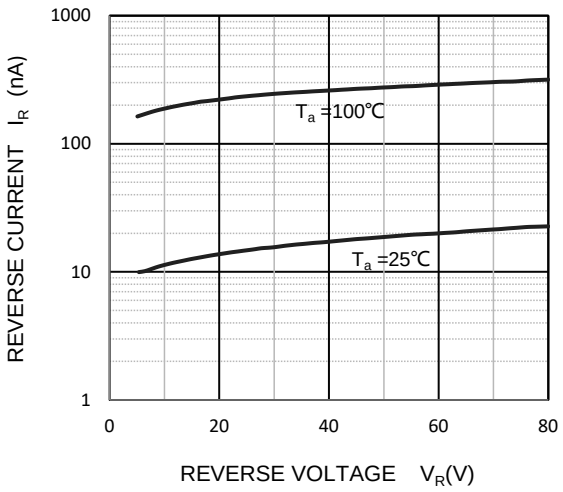
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MMBD4448	SOT-23	KA3	3,000	45,000	180,000	7"reel

Typical Operating Characteristics

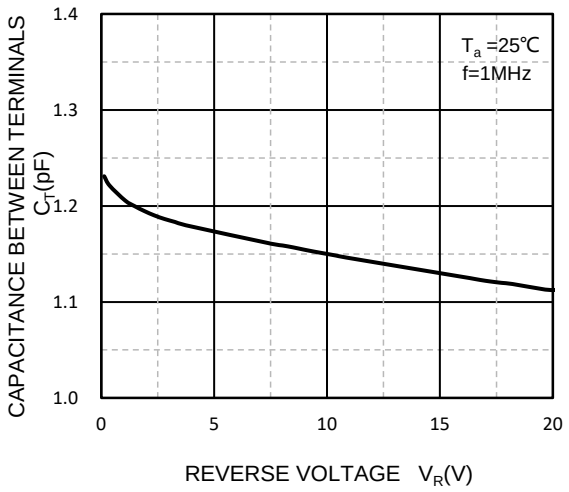
Forward Characteristics



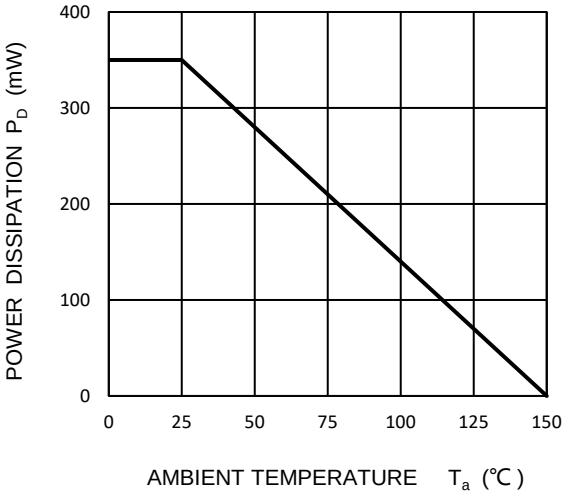
Reverse Characteristics



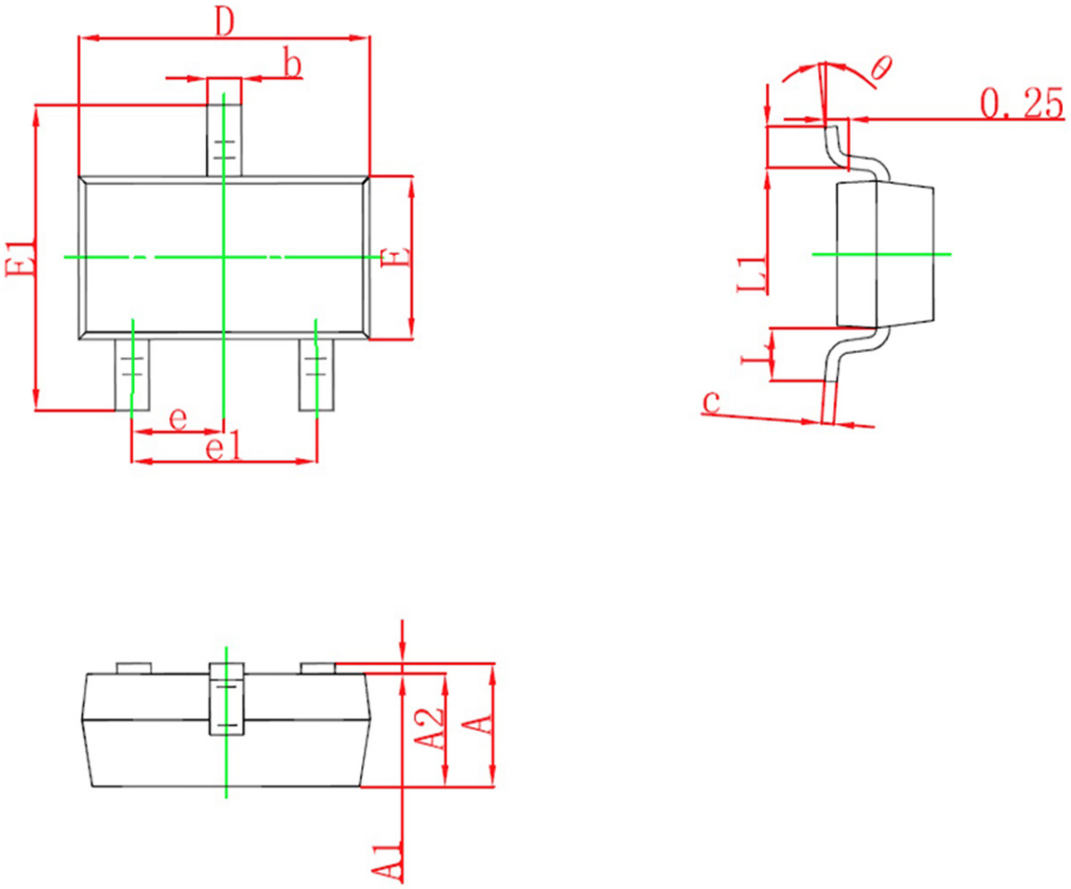
Capacitance Characteristics



Power Derating Curve



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°