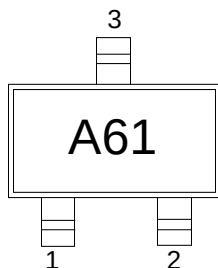
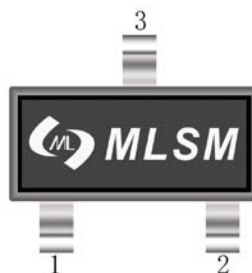


Features

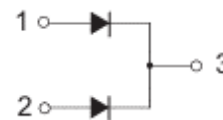
- High speed switching
- Low capacitance



Marking and pin assignment



SOT-23 top view



Schematic diagram



Halogen-Free

Maximum Ratings @Ta=25°C

Symbol	Parameter	Value	Unit
V_{RM}	Non-Repetitive Peak Reverse Voltage	75	V
V_R	Reverse Voltage	50	V
I_O	Average Rectified Output Current	100	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2	A
P_D	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	833	°C/W
T_J, T_{STG}	Operating and Storage Temperature Range	-55~ +150	°C

Electrical Characteristics @Ta=25°C

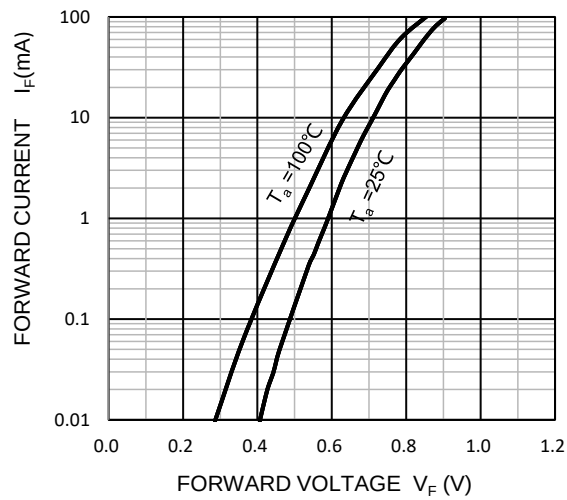
Symbol	Parameter	Condition	Min	Typ	Max	Unit
I_R	Reverse current	$V_R=50V$	--	--	0.1	μA
V_{F1}	Forward voltage	$I_F=10mA$	--	0.67	0.9	V
V_{F2}		$I_F=50mA$	--	0.75	1.0	V
V_{F3}		$I_F=100mA$	--	0.85	1.2	V
C_T	Capacitance between terminals	$V_R=0, f=1MHz$	--	1.1	4	pF
t_{rr}	Reverse recovery time	$I_F=10mA, V_R=6V, R_L=100\Omega, I_{rr}=0.1I_{FR}$	--	--	3	ns

Ordering Information (Example)

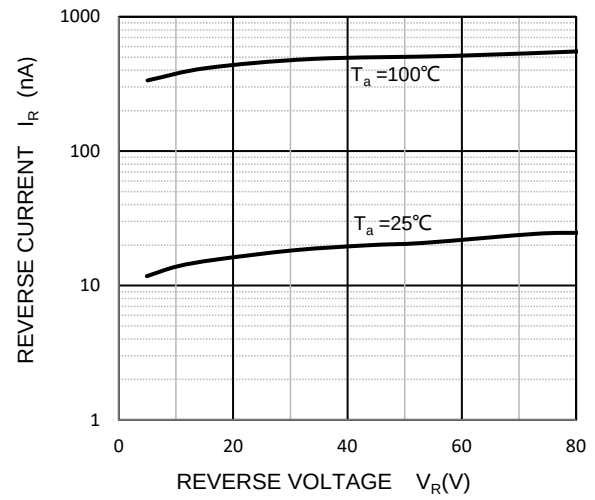
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MC2838	SOT-23	A61	3,000	45,000	180,000	7"reel

Typical Operating Characteristics

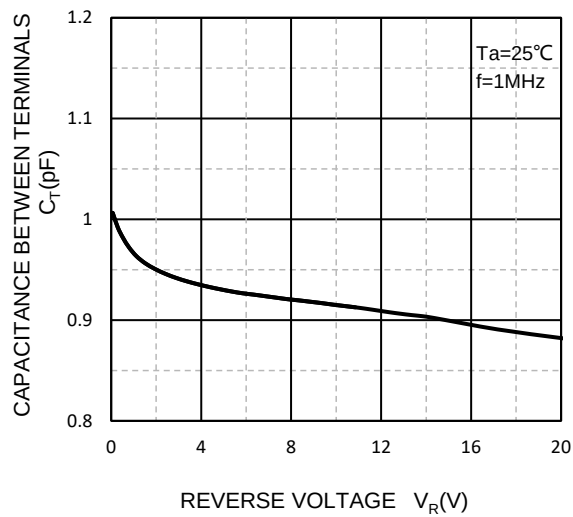
Forward Characteristics



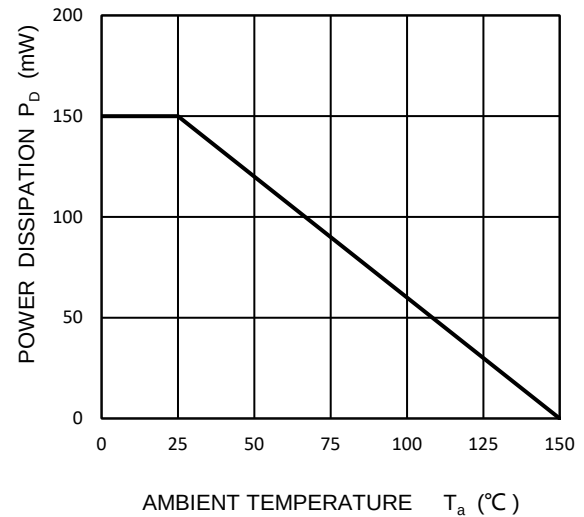
Reverse Characteristics



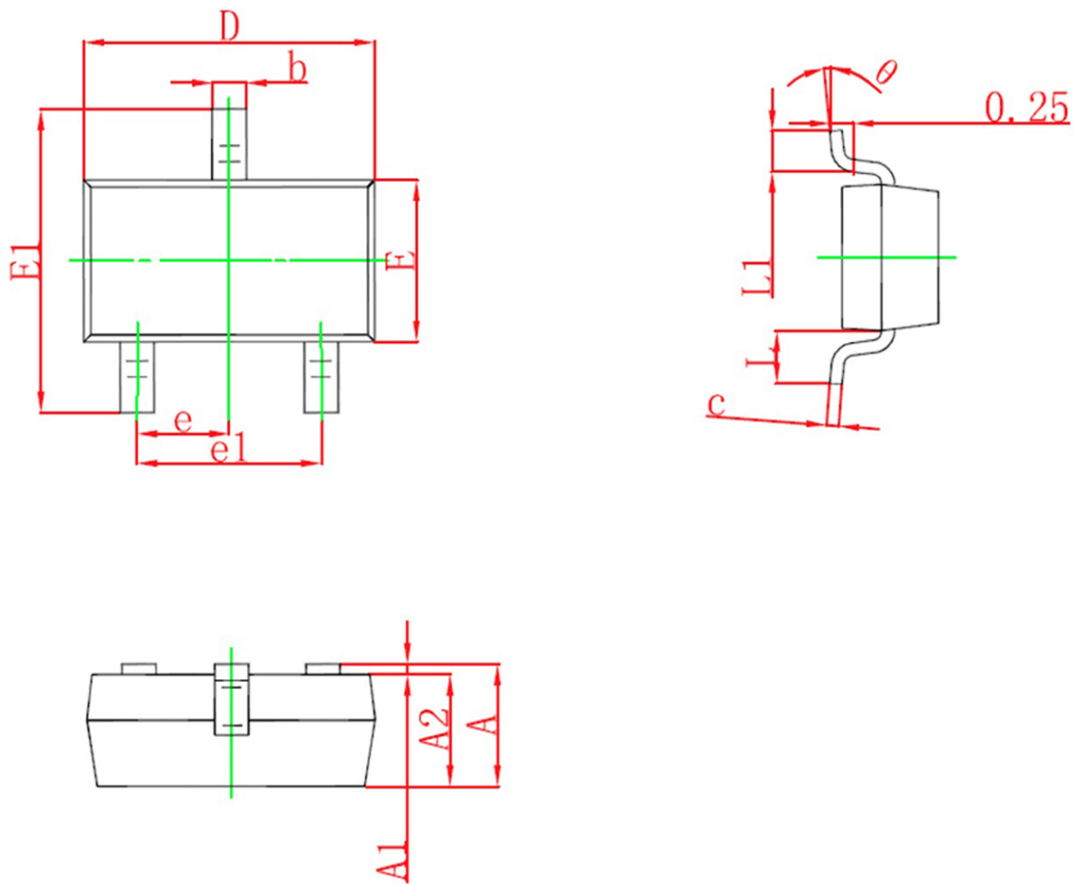
Capacitance Characteristics



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°