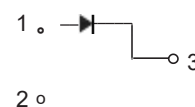
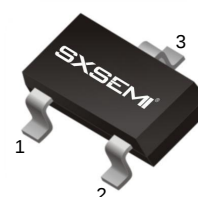


SOT-23



Marking: A6

FEATURES

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

Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

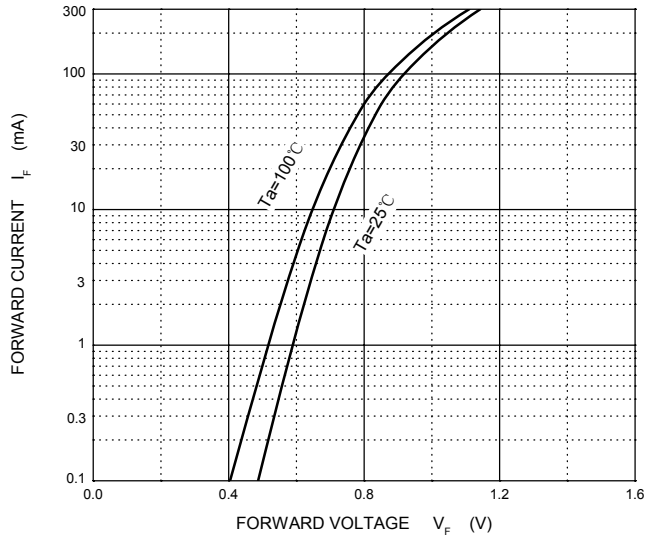
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_d	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

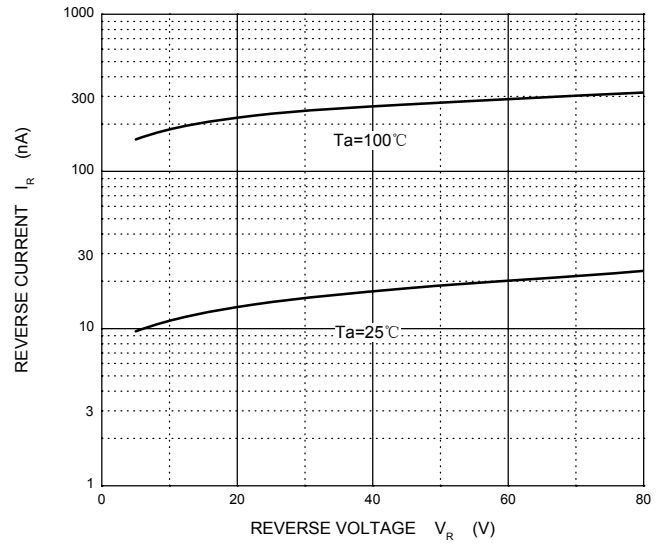
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu A$	75		V
Reverse voltage leakage current	I_R	$V_R = 75V$		1	μA
Forward voltage	V_F	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		0.715 0.855 1 1.25	V
Diode capacitance	C_D	$V_R = 0, f = 1MHz$		2	pF
Reveres recovery time	t_{rr}	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R,$ $R_L = 100\Omega$		6	ns

Typical Characteristics

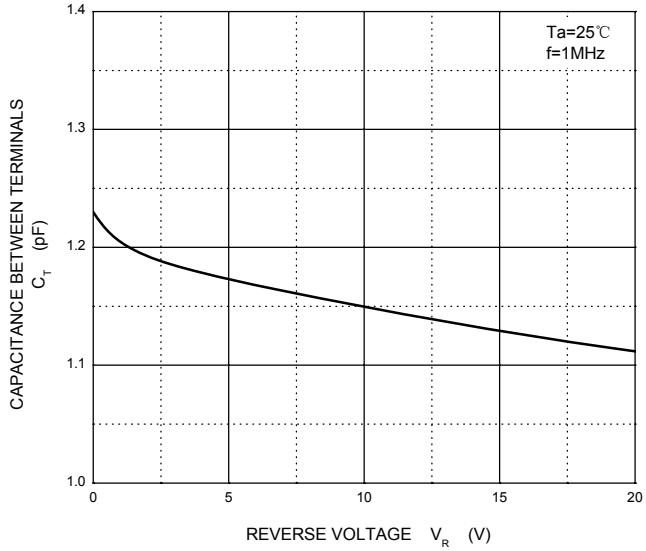
Forward Characteristics



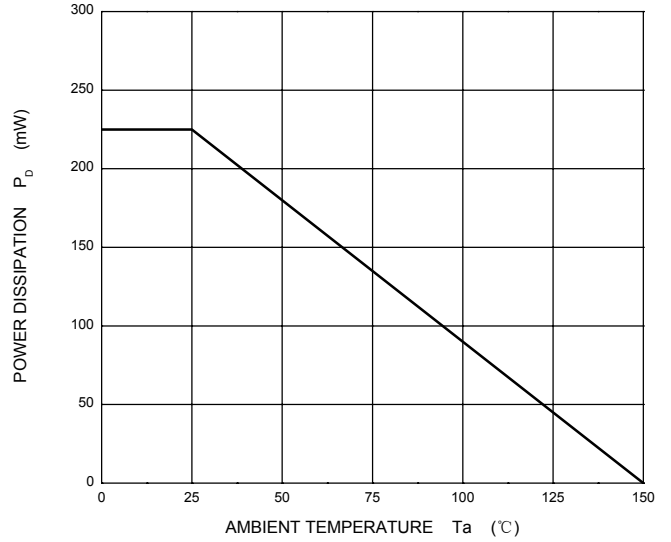
Reverse Characteristics



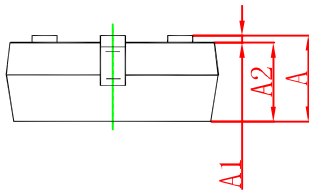
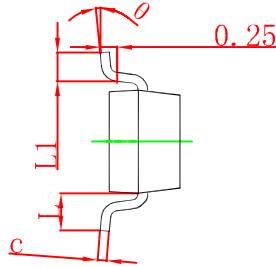
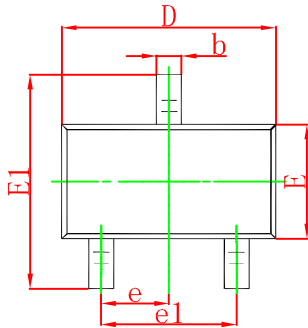
Capacitance Characteristics



Power Derating Curve

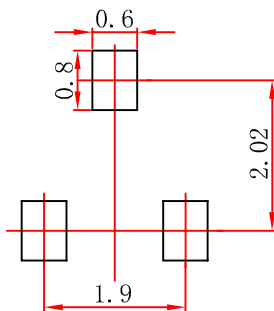


SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		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
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
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°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension; in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.