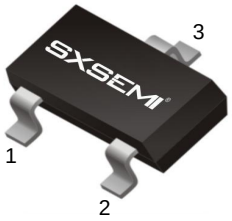
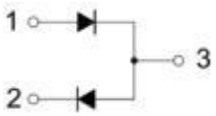
SOT-23





MARKING:A7

FEATURES

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

Maximum Ratings @Ta=25℃

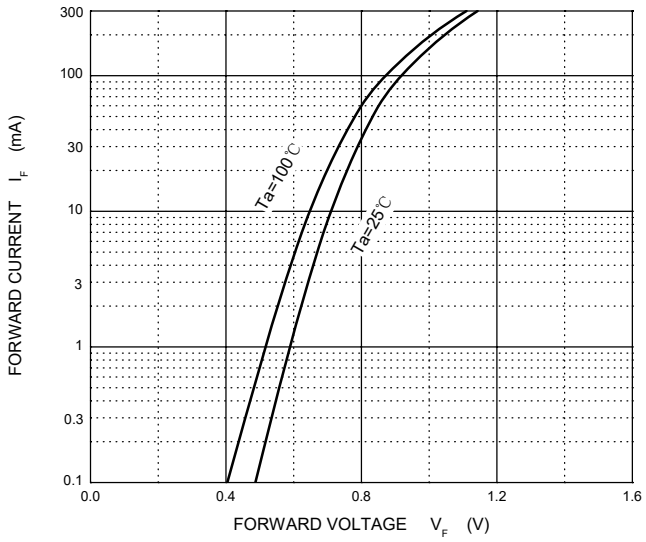
Parameter	Symbol	Limit	Unit
Reverse Voltage	V_R	70	V
Forward Current	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	℃/W
Thermal Resistance Junction to Case	$R_{\theta JC}$	26	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{STG}	-55~+150	℃

Electrical Characteristics @Ta=25℃

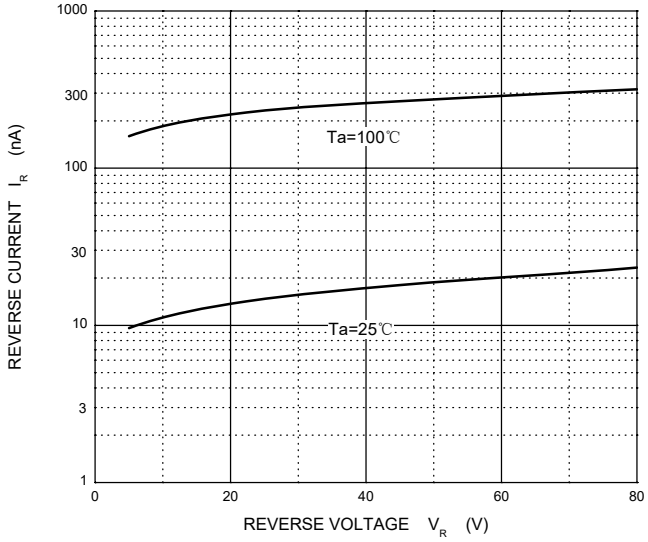
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V_R	70			V	I_R=100μA
Forward voltage	V_{F1}			0.715	V	I_F=1mA
	V_{F2}			0.855	V	I_F=10mA
	V_{F3}			1	V	I_F=50mA
	V_{F4}			1.25	V	I_F=150mA
Reverse current	I_R			2.5	μA	V_R=70V
Capacitance between terminals	C_T			1.5	pF	V_R=0,f=1MHz
Reverse recovery time	t_{rr}			6	ns	I_F = I_R = 10mA, Irr= 0.1 x I_R, R_L = 100Ω

Typical Characteristics

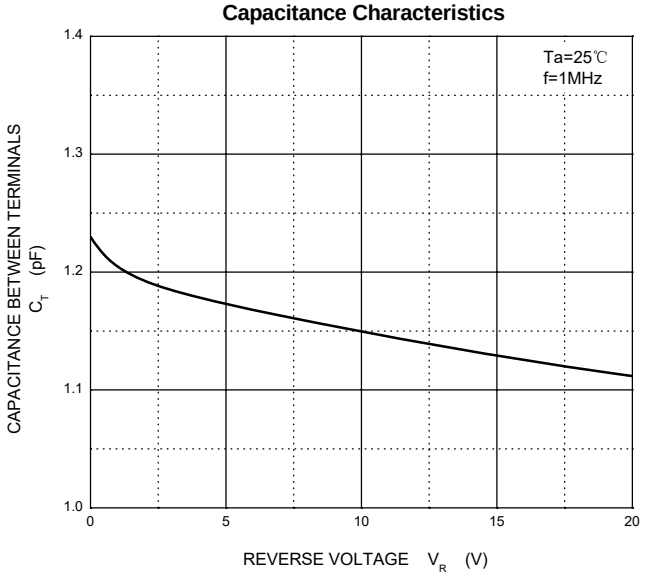
Forward Characteristics



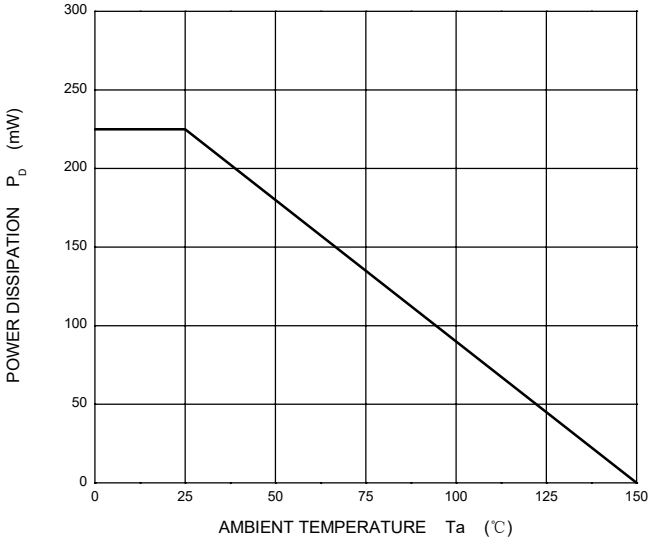
Reverse Characteristics



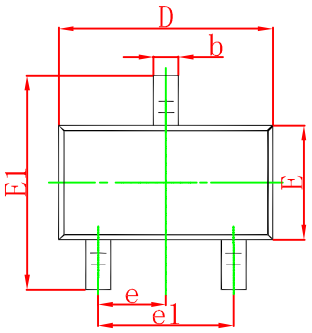
Capacitance Characteristics

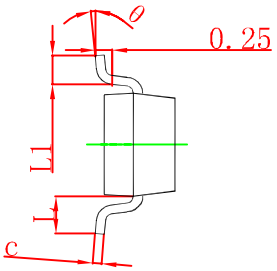


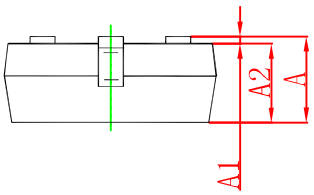
Power Derating Curve



SOT-23 Package Outline Dimensions

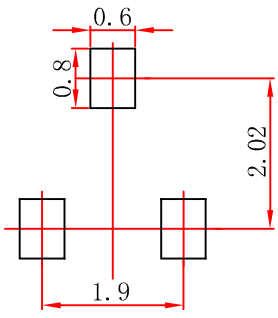






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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:±0.05mm.
3.The pad layout is for reference purposes only.