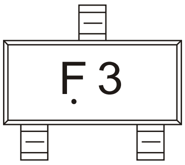
1SS193

FEATURES

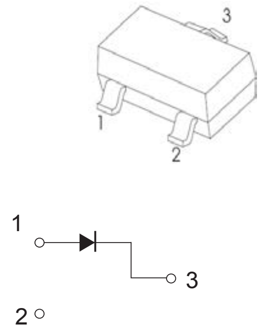
- **Low forward voltage**
- **Fast reverse recovery time**

MARKING: F3



F3 = Device code
Solid dot = Green molding compound device.

SOT-23



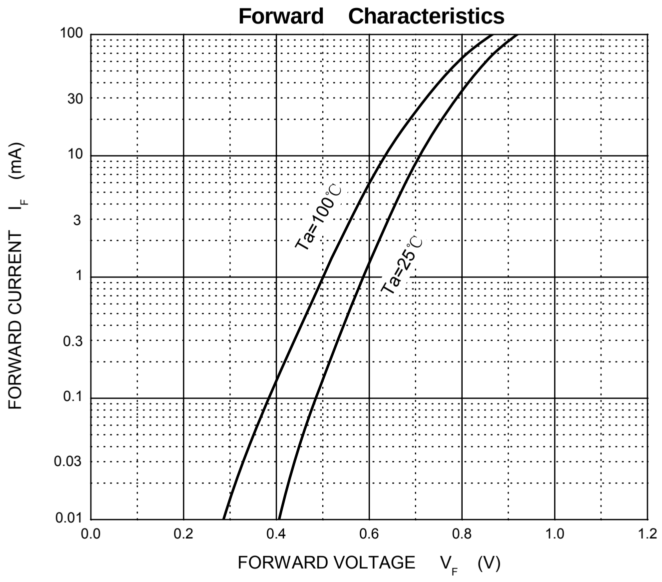
Maximum Ratings @Ta=25℃

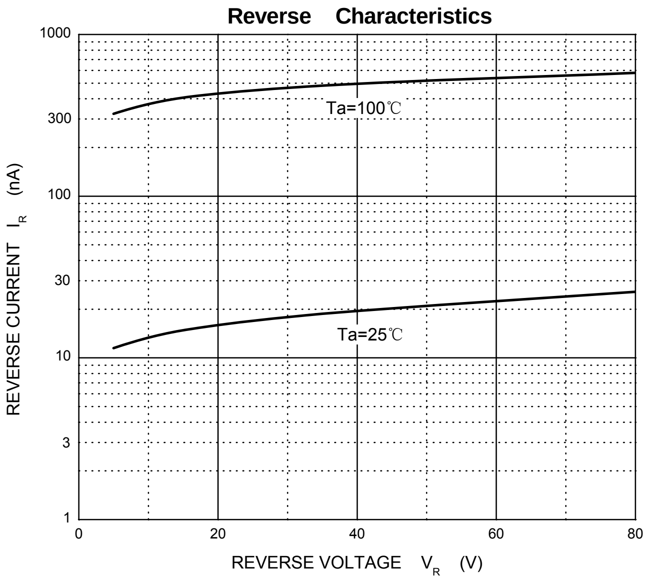
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	85	V
DC Blocking Voltage	V_R	80	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	100	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	℃

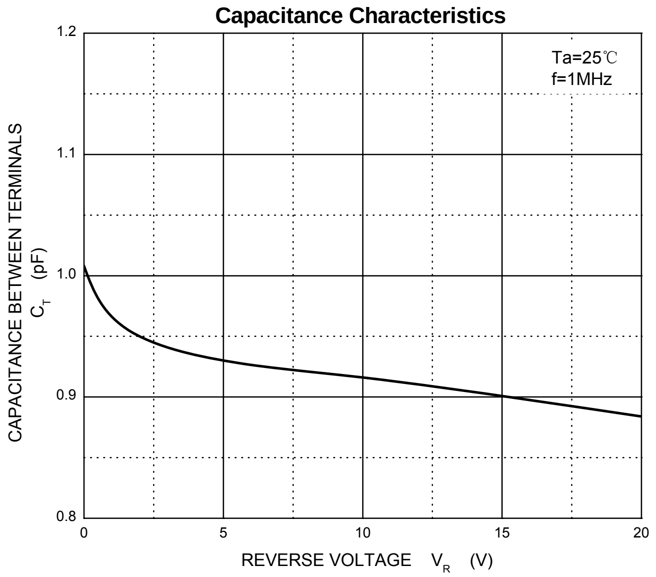
Electrical Characteristics @Ta=25℃

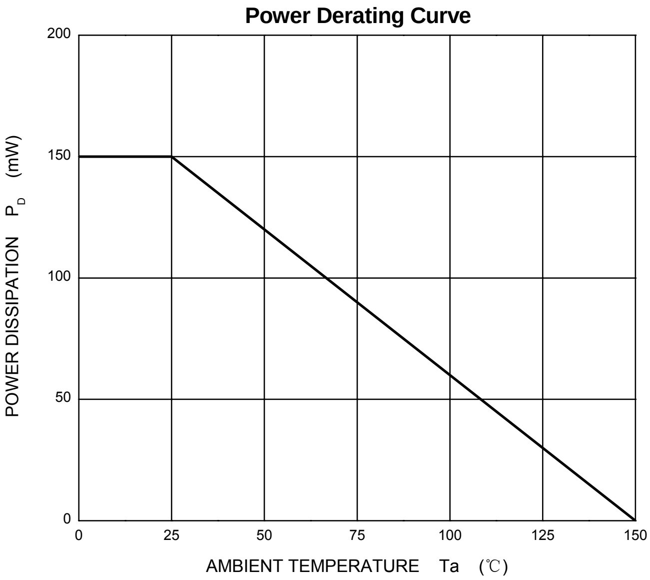
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	80			V	I_R=100μA
Forward voltage	V_{F1}		0.60		V	I_F=1mA
	V_{F2}		0.72		V	I_F=10mA
	V_{F3}		0.90	1.2	V	I_F=100mA
Reverse current	I_{R1}			0.1	uA	V_R=30V
	I_{R2}			0.5	uA	V_R=80V
Capacitance between terminals	C_T		0.9	3.0	pF	V_R=0,f=1MHz
Reverse recovery time	t_{rr}		1.6	4.0	ns	$I_F=I_R$=10mA,$I_{rr}=0.1\times I_R$

Typical Characteristics

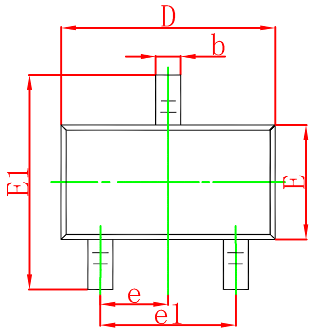

Forward Characteristics

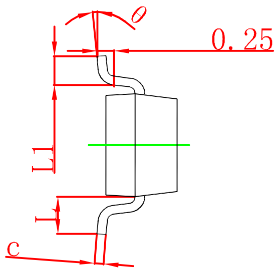

Reverse Characteristics

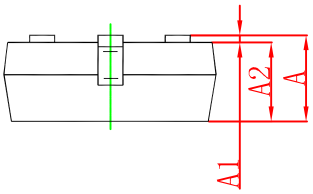

Capacitance Characteristics


Power Derating Curve

SOT-23 Package Outline Dimensions

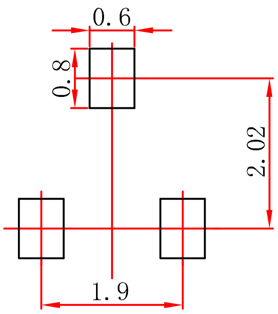






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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.