

SOT-23 Plastic-Encapsulate Diodes

1SS190

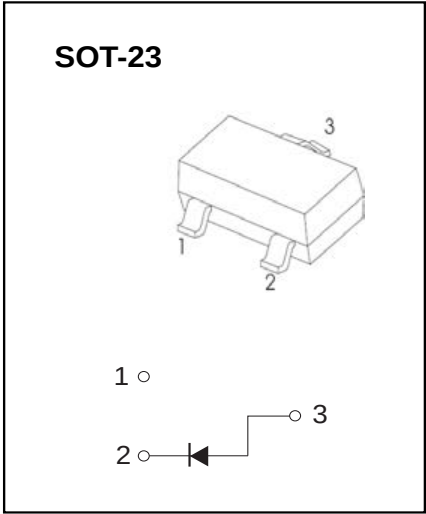
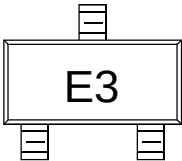
Switching Diodes

FEATURES

- Fast reverse recovery time
- Low forward voltage

MARKING

Equivalent Circuit



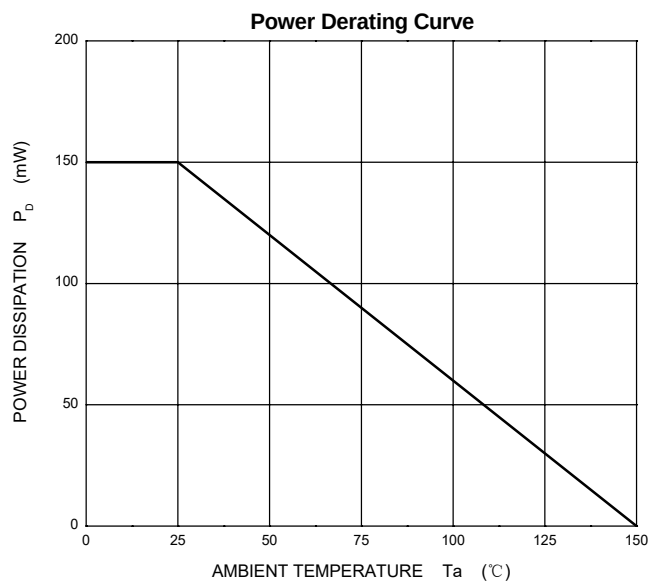
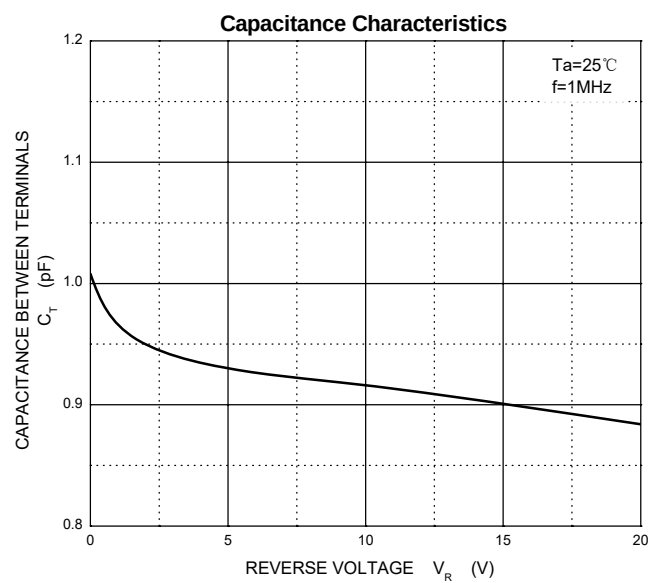
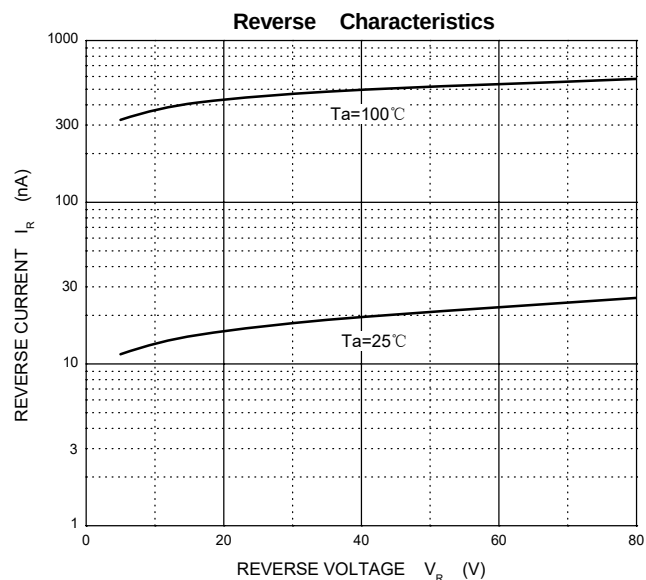
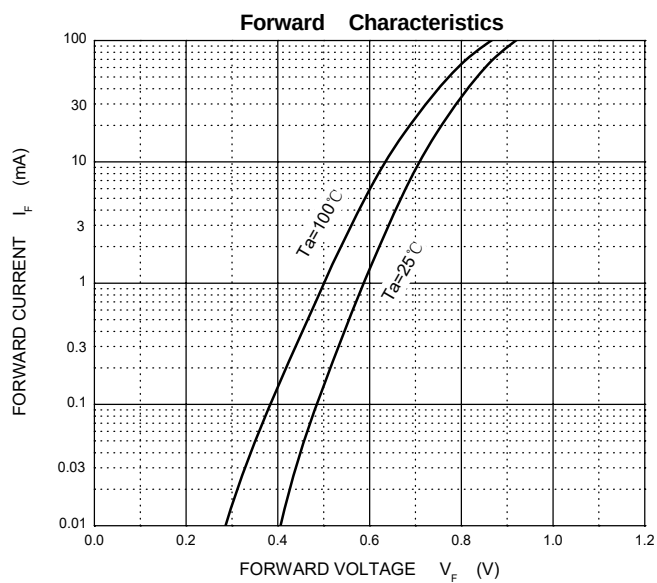
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

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 _{θJA}	833	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{STG}	-55~+150	°C

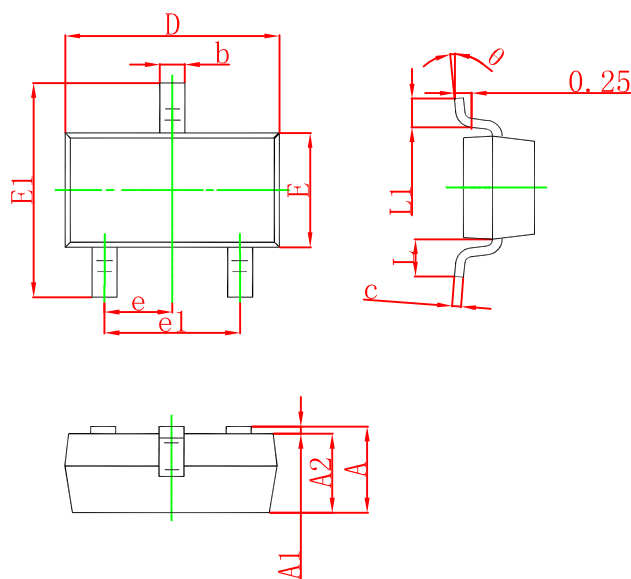
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V _(BR)	80			V	I _R =100μA
Forward voltage	V _{F1}		0.61		V	I _F =1mA
	V _{F2}		0.74		V	I _F =10mA
	V _{F3}		0.92	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		2.2	4.0	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×I _R

Typical Characteristics

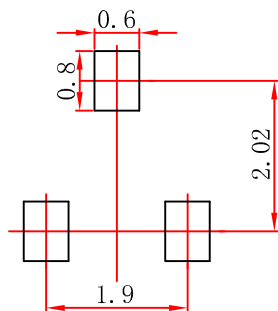


Package Outline Dimensions (SOT-23)



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°

Suggested Pad Layout (SOT-23)



- Note:
- 1.Controlling dimension:in millimeters.
 - 2.General tolerance:± 0.05mm.
 - 3.The pad layout is for reference purposes only.