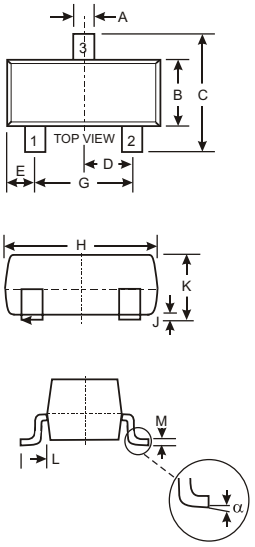
HAICHUANG SEMI

1SS181

HIGH SPEED SWITCHING DIODES

Features

- Low Forward Voltage
- Low Leakage Current
- Fast reverse recovery time
- Marking Code:A3

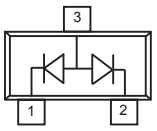


SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

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
Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	150	mW
Thermal Resistance	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

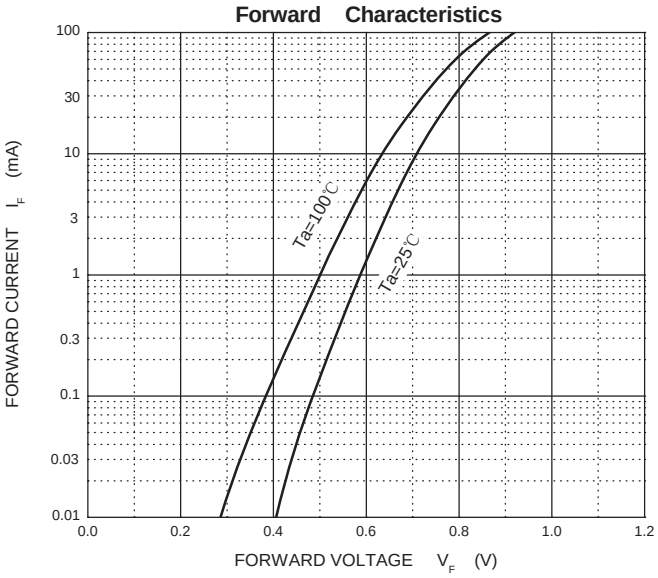
Equivalent Circuit

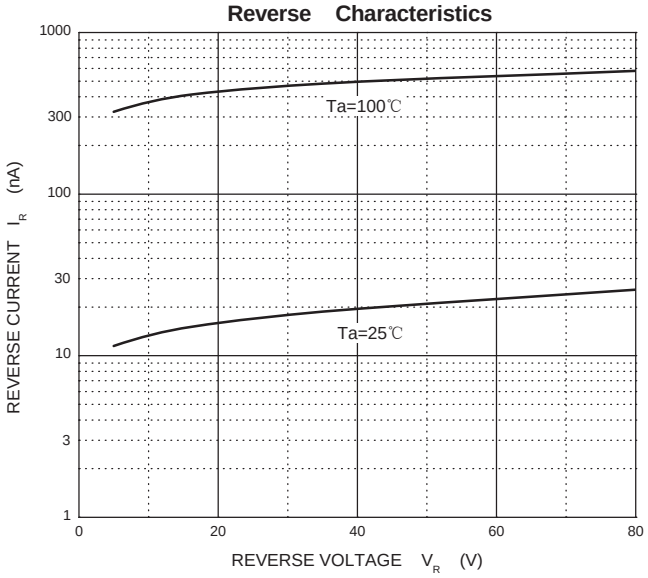


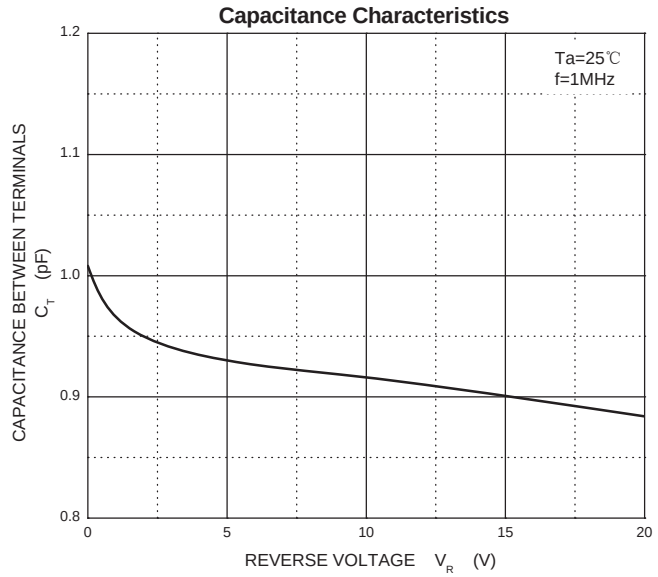
Electrical Characteristics @ T_A = 25°C unless otherwise specified

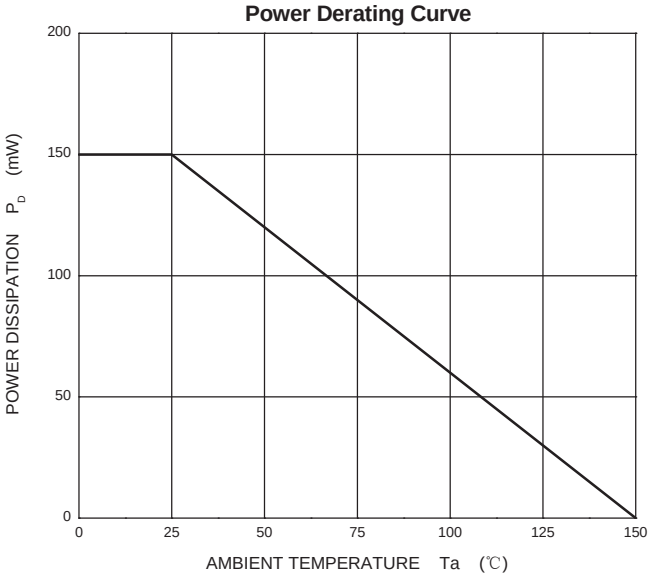
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	80			V	I_R=100μA
Forward voltage	V_{F1}		0.61		V	I_F=1mA
	V_{F2}		0.74		V	I_F=10mA
	V_{F3}		0.92	1.2	V	I_F=100mA
Reverse current	I_{R1}			0.1	uA	V_R=30V
	I_{R2}			0.5	uA	V_R=80V
Capacitance between terminals	C_T		2.2	4.0	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 TRANSIENT CHARACTERISTICS









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