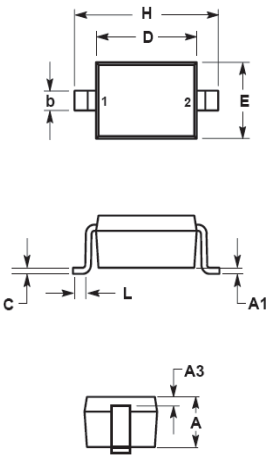
HAICHUANG SEMI

BAT54WS

SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Extremely Fast Switching Speed.
- Low Forward Voltage.
- Marking Code: L9



SOD-323		
Dim.	Min.	Max.
A	0.80	1.10
A1	0.00	0.10
A3	0.15 REF	
B	0.25	0.40
C	0.10	0.15
D	1.60	1.80
E	1.15	1.35
L	0.20	0.50
H	2.30	2.80
Dimensions in millimeter		

Maximum Ratings @ T_A = 25°C unless otherwise specified

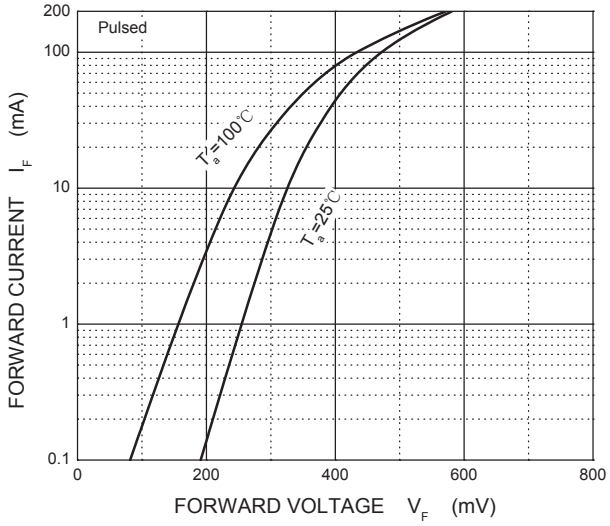
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	30	V
DC Blocking Voltage	V_R	21	V
Average Rectified Output Current	I_O	100	mA
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non-repetitive Peak Forward Surge Current at t = 8.3 ms	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	500	℃/W
Junction Temperature	T_j	- 40 to + 150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Electrical Characteristics @ T_A = 25°C unless otherwise specified

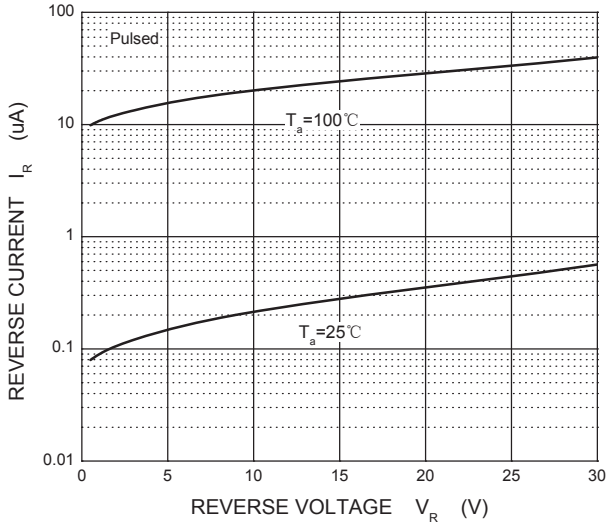
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA			240	mV
	V_{F2}	I_F=1.0mA			320	mV
	V_{F3}	I_F=10mA			400	mV
	V_{F4}	I_F=30mA			500	mV
	V_{F5}	I_F=100mA			1000	mV
Reverse current	I_R	V_R=25V			2.0	uA
Reverse recovery time	t_{rr}	I_F=10mA, I_R=10mA to 1mA , R_L=100 Ω			5.0	ns
Capacitance between terminals	C_T	V_R=1V,f=1MHz			10	pF

TYPICAL TRANSIENT CHARACTERISTICS

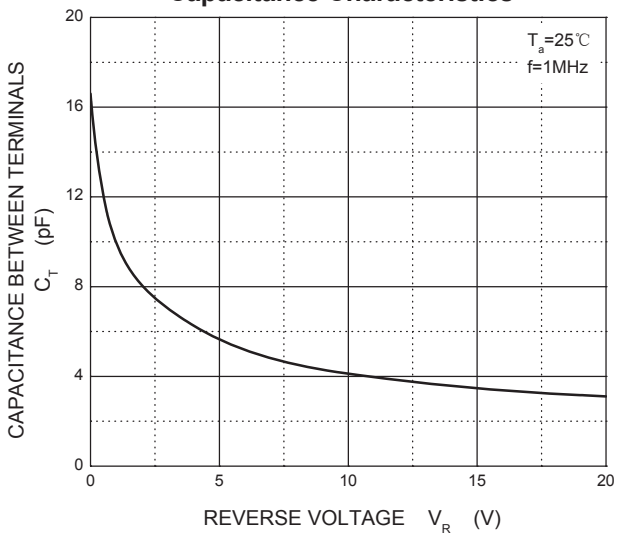
Forward Characteristics



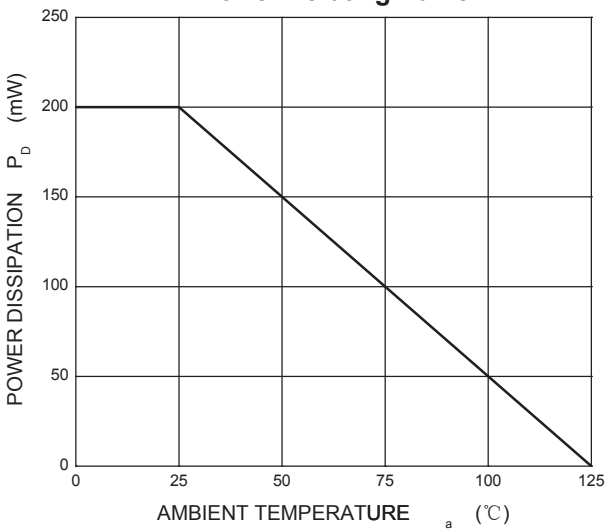
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



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