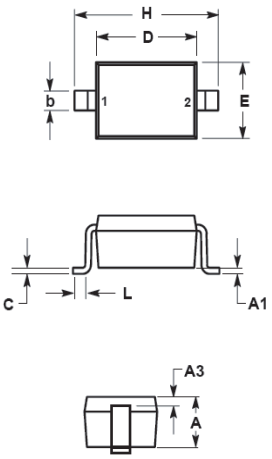
HAICHUANG SEMI

1N4148WS

SURFACE MOUNT FAST SWITCHING DIODE

Features

- Fast Switching Speed.
- Surface Mount Package Switching Applications.
- High Conductance.
- Marking Code:T4



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}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 μs	I_{FSM}	1 2	A
Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 5 μA	$V_{(BR)R}$	75	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	 V
Peak Reverse Current at V_R = 75 V at V_R = 20 V at V_R = 75 V, T_J = 150℃ at V_R = 25 V, T_J = 150℃	I_R	 - - - -	 1 25 50 30	 μA nA μA μA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_F = 10 mA, I_{rr} = 1 mA, V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

TYPICAL TRANSIENT CHARACTERISTICS

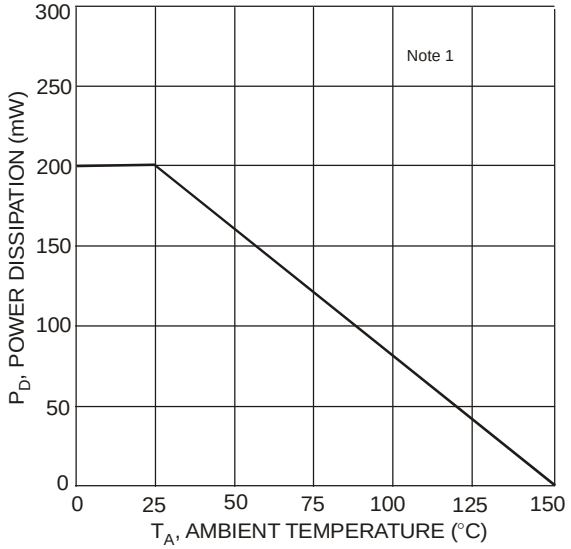


Fig. 1 Power Derating Curve

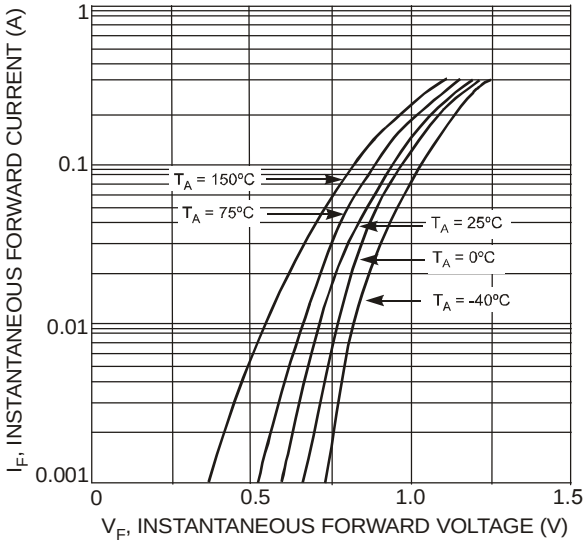


Fig. 2 Typical Forward Characteristics

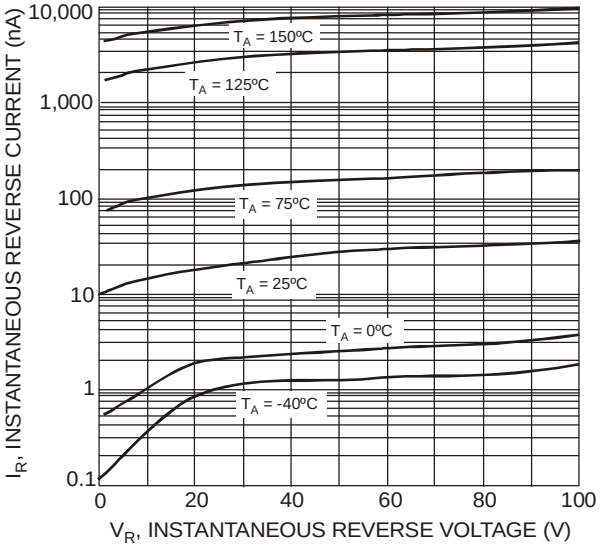


Fig. 3 Typical Reverse Characteristics

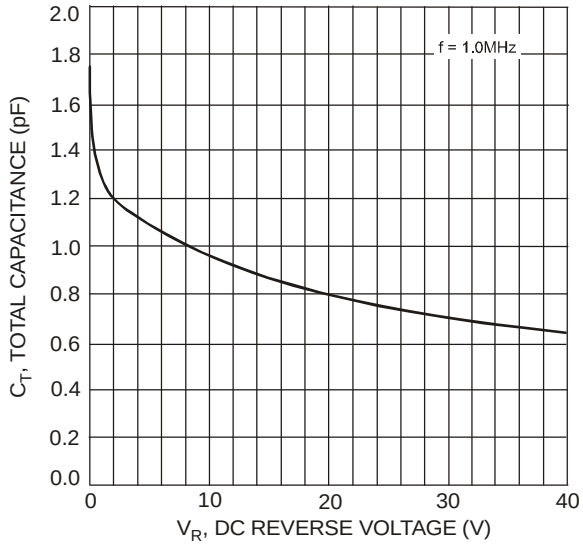


Fig. 4 Total Capacitance vs. Reverse Voltage

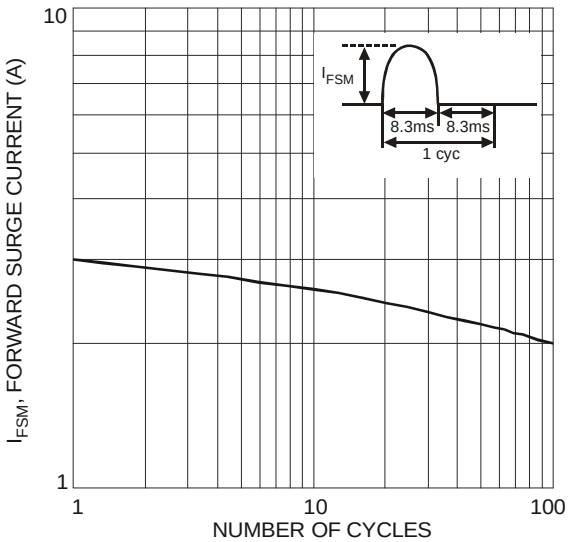


Fig. 5 Maximum Non-Repetitive Surge Current

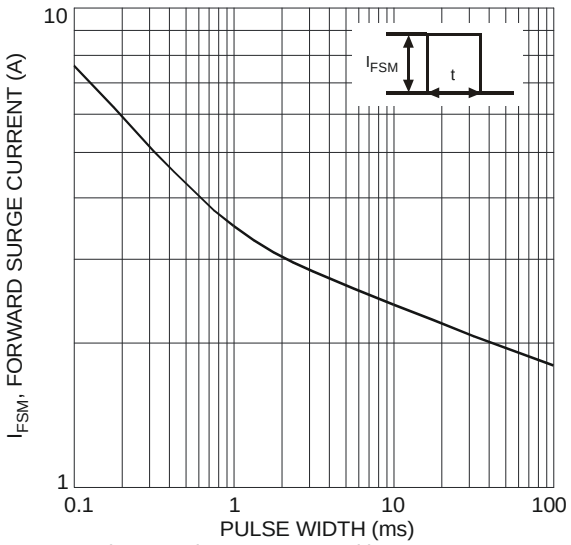


Fig. 6 Maximum Non-Repetitive Surge Current

IMPORTANT NOTICE

HC-SEMI reserves the right to make changes without further notice to any products herein.

HC-SEMI makes no warranty, representation or guarantee regarding

The suitability of its products for any particular purpose, nor does HC-SEMI assume any liability arising out of the application or use of any product or circuit,and specifically disclaims any and all liability, including without limitation consequential or incidental damages.

“Typical” parameters can and do vary in different applications. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts.

HC-SEMI products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the HC-SEMI product could create a situation where personal injury or death may occur.

Should Buyer purchase or use HC-SEMI products for any such unintended or unauthorized application, Buyer shall indemnify and hold HC-SEMI and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that HC-SEMI was negligent regarding the design or manufacture of the part.