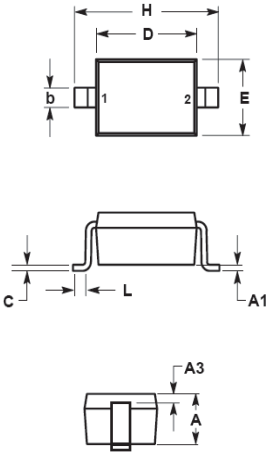
HAICHUANG SEMI

BAS40WS

SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Turn-on Voltage.
- Fast Switching.
- PN Juncting Guard Ring for Transient and ESD Protection.
- Marking Code: 43



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 Repetive Reverse Voltage	V_{RM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Forward Surge Current @ t <1.0 s	I_{FSM}	600	mA
Power Dissipation	P_D	350	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	357	℃/W
Junction Temperature	T_j	- 55 to +125	℃
Storage Temperature Range	T_{stg}	- 65 to +150	℃

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	—	—	V	I_R= 10μA
Forward Voltage	V_F	—	—	380 1000	mV	t_p < 300μs, I_F = 1.0mA t_p < 300μs, I_F = 40mA
Reverse Leakage Current	I_R	—	20	200	nA	t_p < 300μs, V_R = 30V
Junction Capacitance	C_j	—	4.0	5.0	pF	V_R = 0V, f =1.0MHz
Reverse Recovery Time	t_{rr}	—	—	5.0	ns	I_F = I_R = 10mA to I_R = 1.0mA, R_L = 100Ω

Notes: 1. Valid Provided that terminals are kept at ambient temperature.

TYPICAL TRANSIENT CHARACTERISTICS

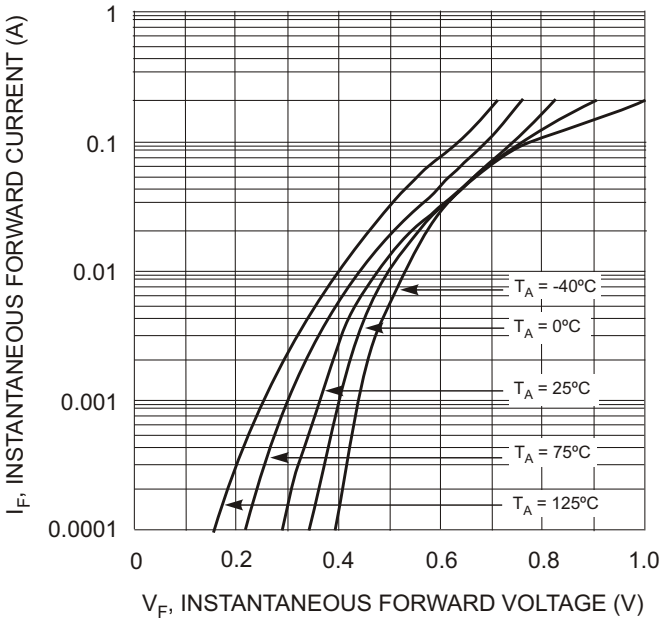


Fig. 1 Typical Forward Voltage

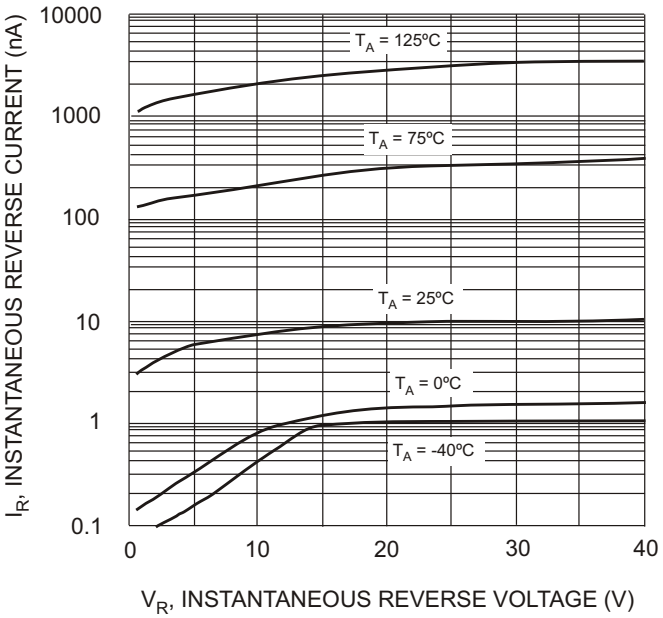


Fig. 2 Typical Reverse Characteristics

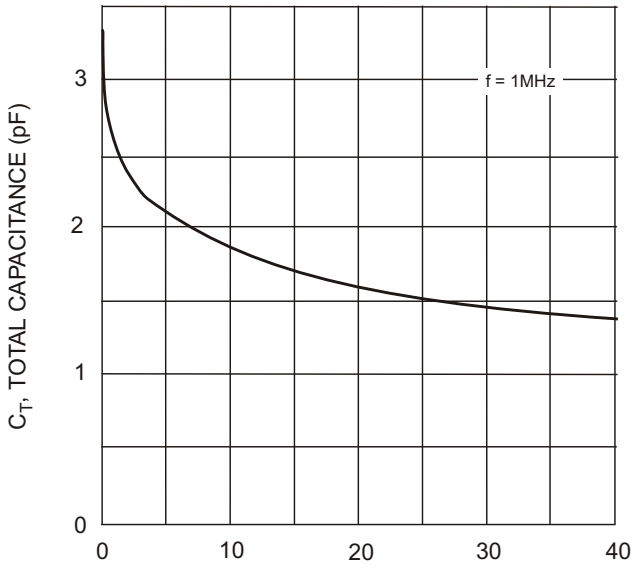


Fig. 3 Typical Capacitance

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.