



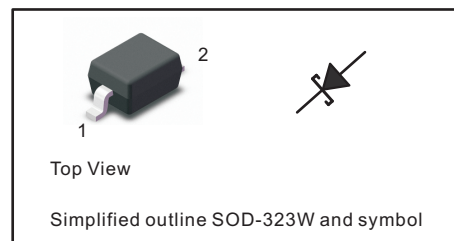
## High Speed Switching Diode

### FEATURES

- Guarding for over voltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- Fast reverse recovery time

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MECHANICAL DATA

- Case: SOD-323W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	HS1004WB	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Power dissipation	$P_D$	250	mW
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	$I_{FSM}$	5	A
Forward Voltage @ $I_F=0.5 A$ @ $I_F=1.0 A$	$V_F$	0.45(typ) 0.55(typ)0.60(max)	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage $T_j = 25^\circ C$ $V_R = 40V$	$I_R$	20	$\mu A$
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	400	$^\circ C/W$
Reverse recovery time $I_F=1A, I_R=0.5A, I_{rr}=0.25A$	$t_{rr}$	4	ns
Typical Junction Capacitance $V_R=1V, f=1MHz$	$C_j$	55	pF
Storage and Operating Junction Temperature Range	$T_j, T_{stg}$	-55 ~ +125	$^\circ C$



Fig.1 Power Derating Curve

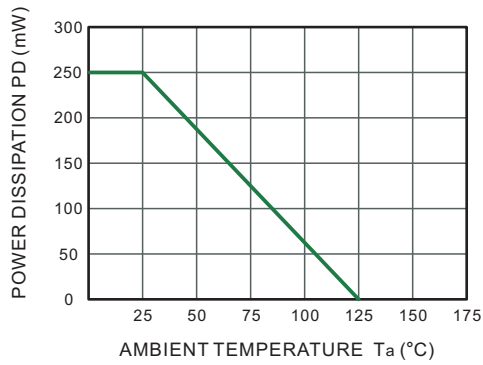


Fig.2 Typical Reverse Characteristics

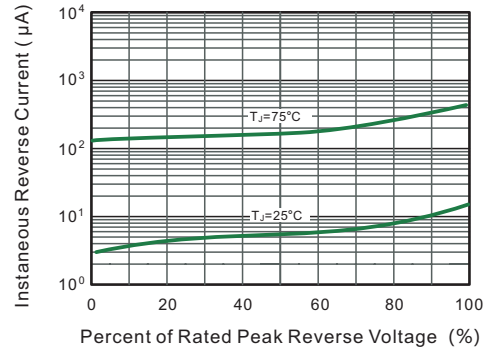


Fig.3 TYPICAL FORWARD VOLTAGE

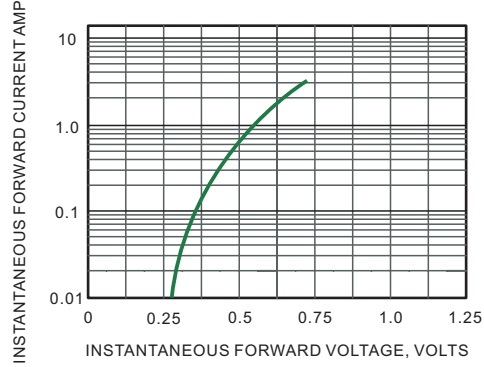
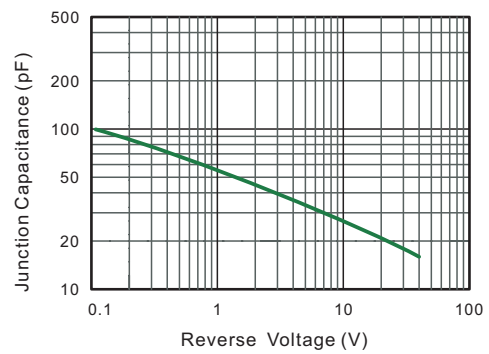


Fig.4 Typical Junction Capacitance

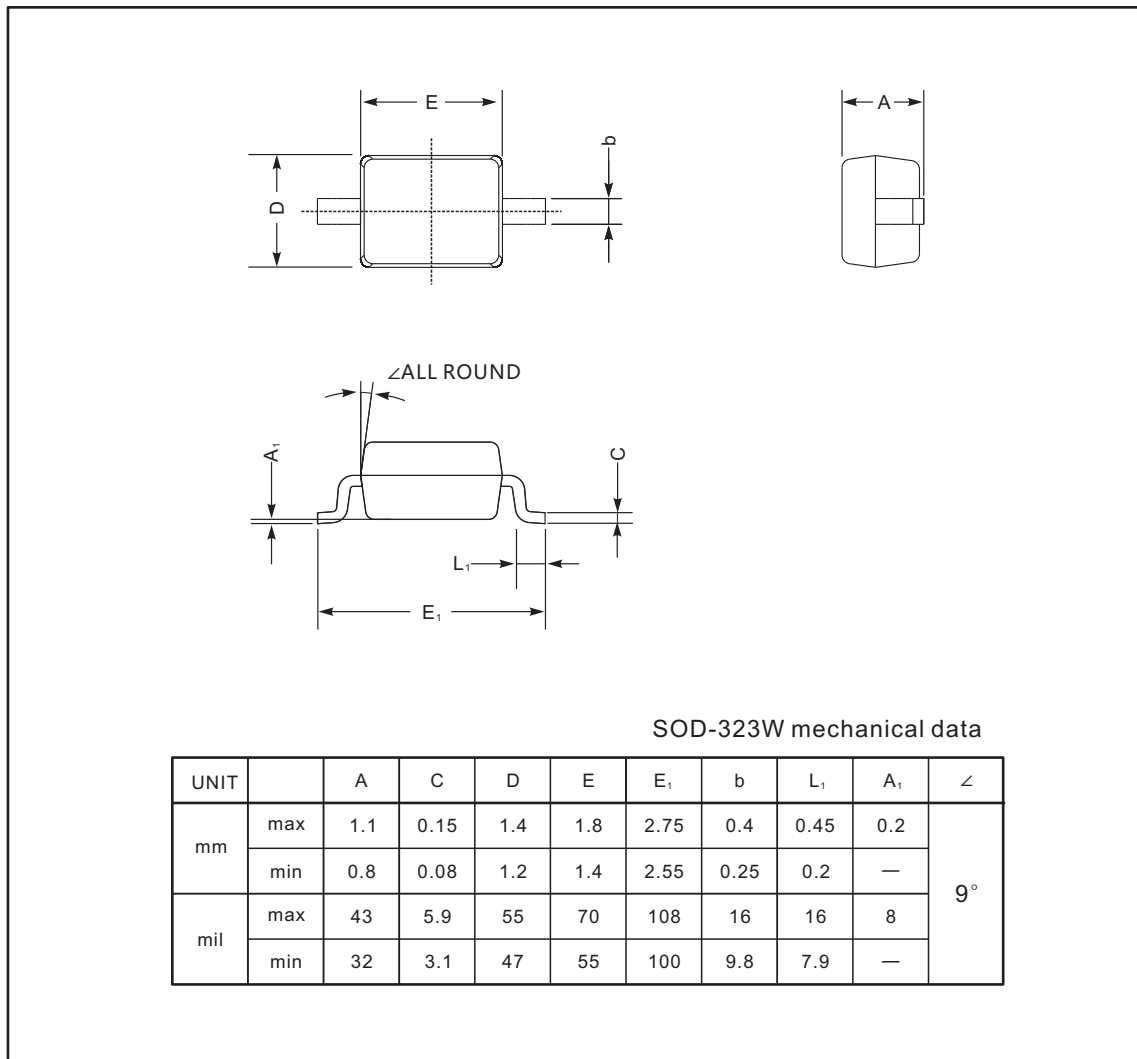




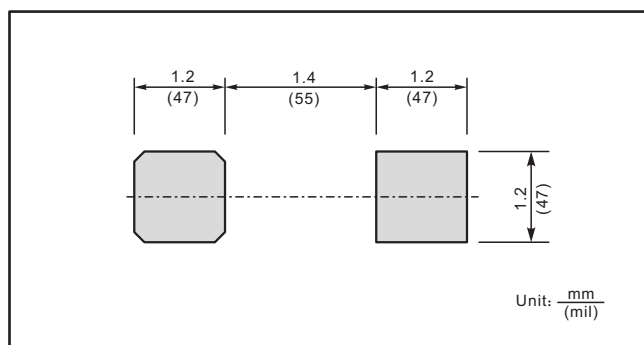
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-323W



**The recommended mounting pad size**



**Marking**

Type number	Marking code
HS1004WB	T14