

High Speed Switching Diode

FEATURES

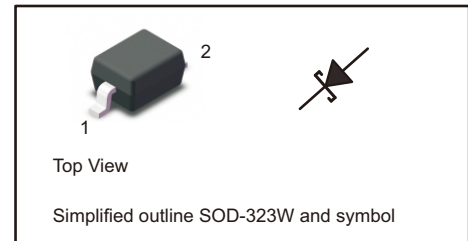
- Guarding for over voltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- Fast reverse recovery time

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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	HS1004WBA	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 @ $I_F=0.5A$ @ $I_F=1.0A$	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	μA
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	$^\circ C$



Typical Performance Characteristics

Fig.1 Power Derating Curve

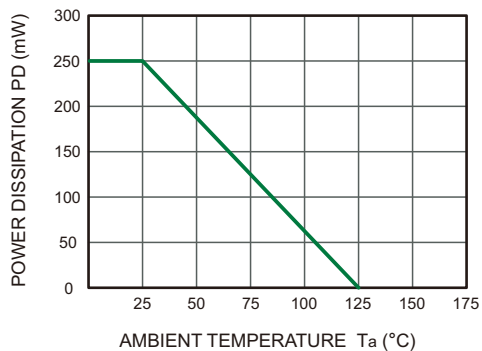


Fig.2 Typical Reverse Characteristics

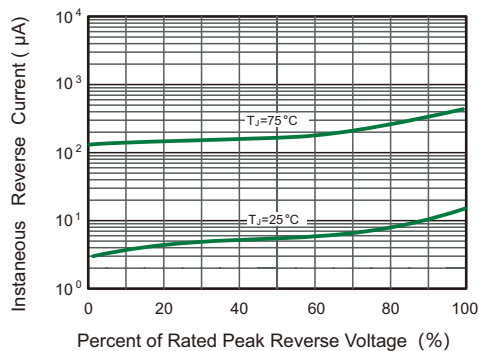


Fig.3 TYPICAL FORWARD VOLTAGE

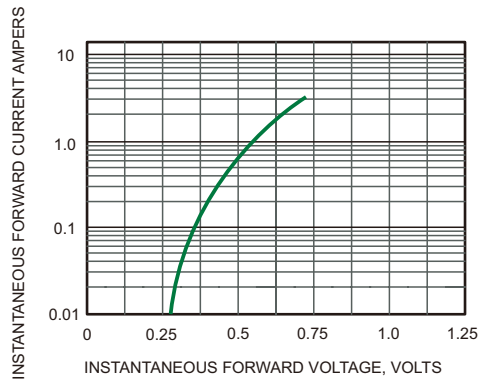
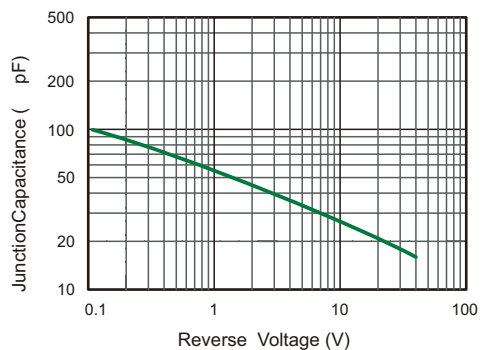


Fig.4 Typical Junction Capacitance

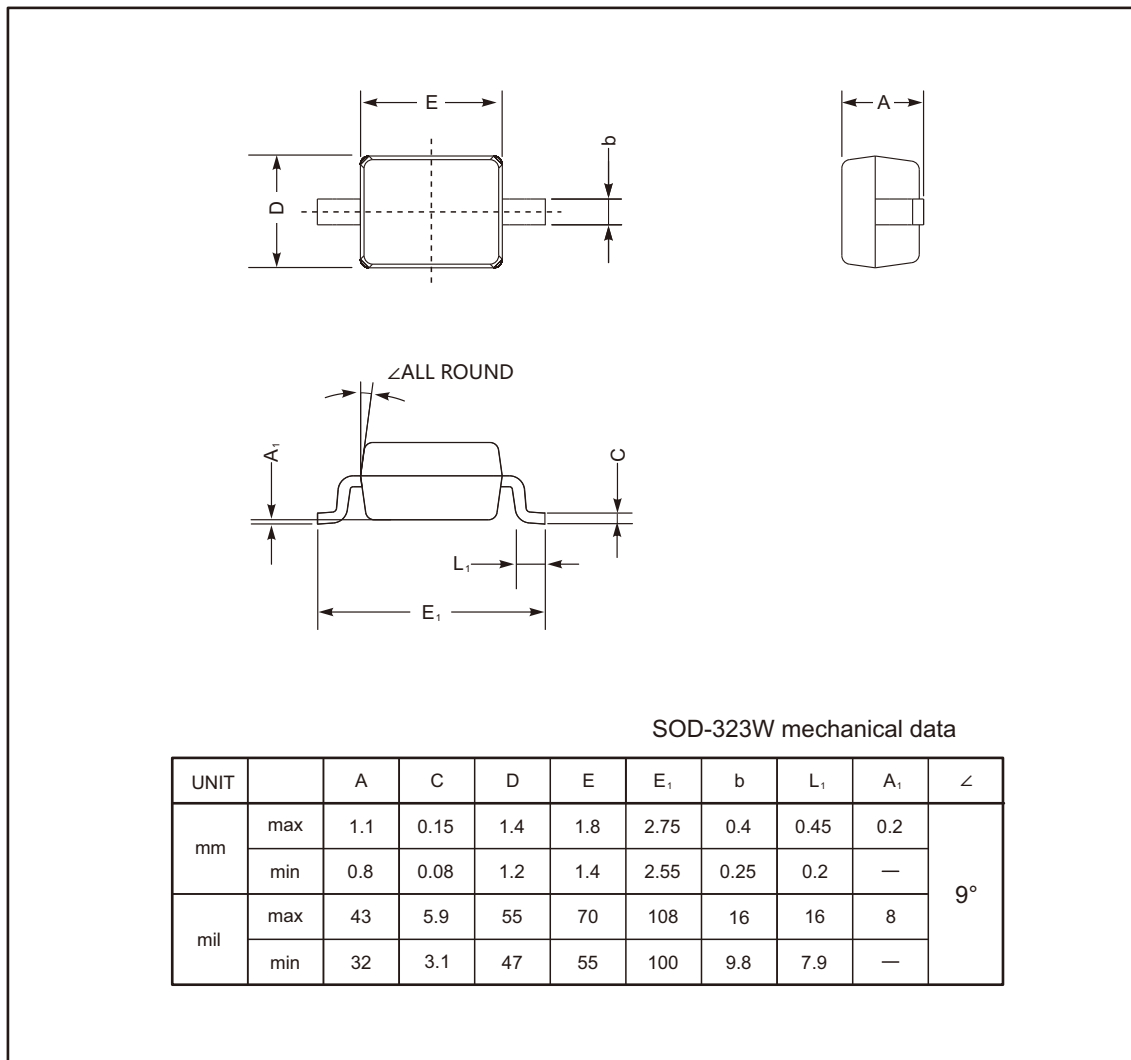




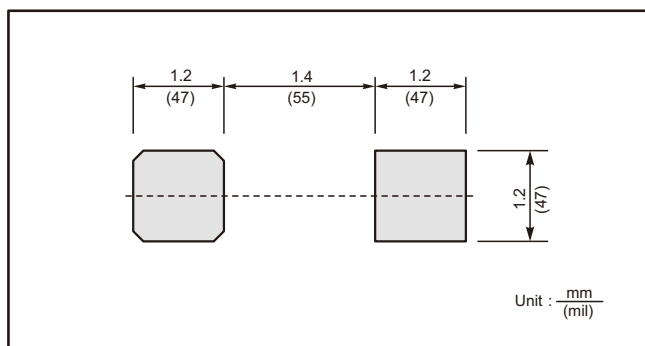
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323W



The recommended mounting pad size



Marking

Type number	Marking code
HS1004WBA	T14



Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.