



**FEATURES**

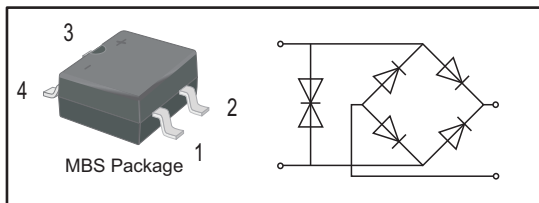
- Green Molding Compound (No Halogen and Antimony)
- Lower clamping voltage and excellent performance on ringing waves testing.
- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

**PINNING**

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

**MECHANICAL DATA**

- Case: MBS
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 100mg / 0.0035oz



Maximum Ratings and Thermal Characteristics(TA = 25°C unless otherwise specified)

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter of Bridge Rectifier	Symbols	STB120S	Units
Average Rectified Output Current	$I_O$	1.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30	A
Maximum Forward Voltage at 1.0 A	$V_F$	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage (@VR=1000V)	$I_R$	5 40	$\mu$ A
Typical Junction Capacitance (f=1MHz,4V DC)	$C_j$	13	pF
Typical Thermal Resistance (Note1)	$R_{\theta JA}$ $R_{\theta JC}$	80 28	°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

Note: 1. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Parameter of TVS	Symbol	STB120S	Unit
Maximum allowable continuous AC voltage at 50-60Hz	$V_{RMS}$	155	V
Breakdown voltage @ 1mA	$V_{BR}$	230(MIN)	V
Maximum allowable continuous DC voltage	$V_{DC}$	220	V
Maximum allowable clamping voltage @ 8/20us	$V_C$	350	V
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C



Fig.1 Average Rectified Output Current Derating Curve

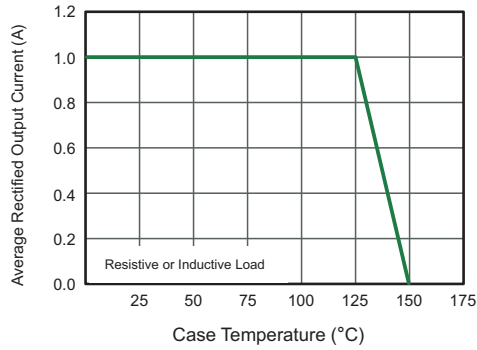


Fig.2 Typical Reverse Characteristics

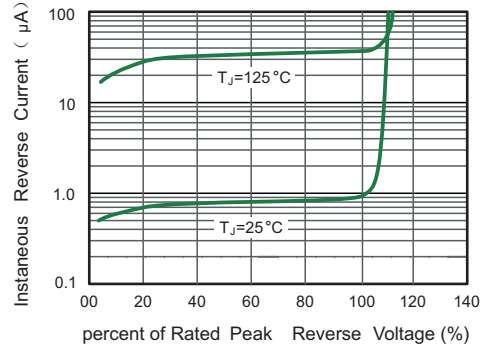


Fig.3 Typical Instantaneous Forward Characteristics

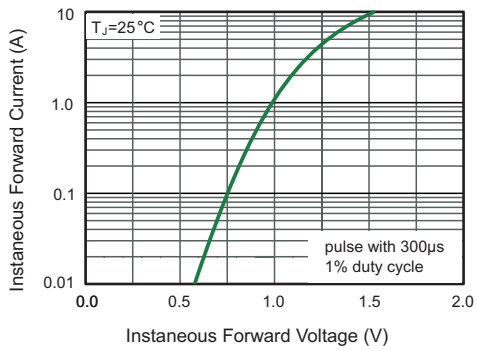


Fig.4 Typical Junction Capacitance

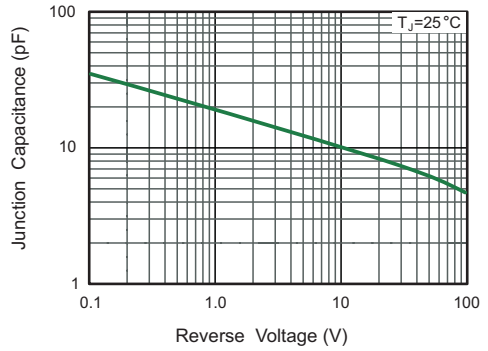
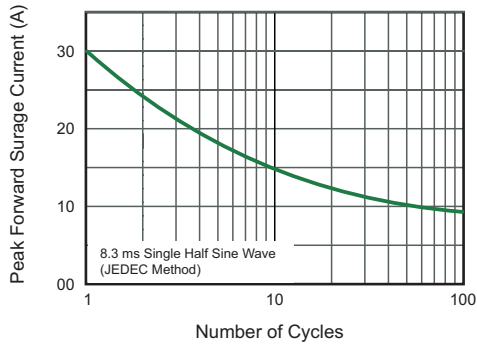


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

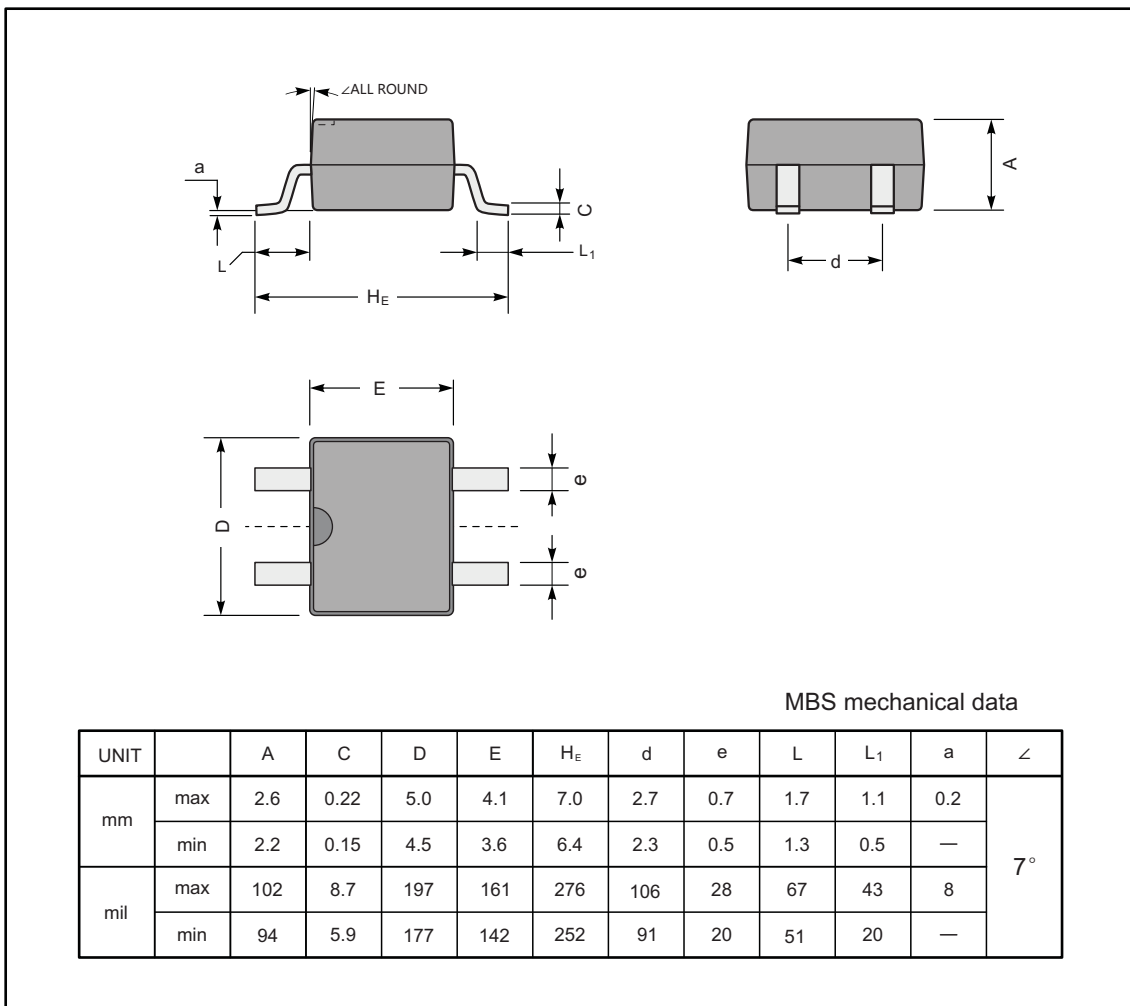




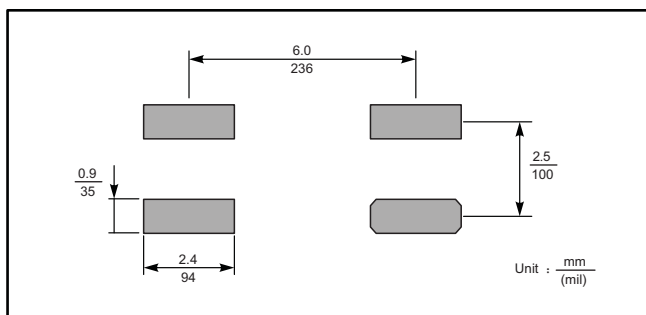
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

MBS



The recommended mounting pad size



Marking

Type number	Marking code
STB120S	STB120S



文件履历表

序号	制/修订日期	生效日期	版次	修订内容	变更原因	制/修订人	备注
01	2023. 10. 10	2023. 10. 12	Rev 1. 1	初版制定	/	郭金铮	



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