

**SURFACE MOUNT  
SCHOTTKY BARRIER BRIDGE RECTIFIERS**

REVERSE VOLTAGE - **20 to 100** Volts  
FORWARD CURRENT - **1.0** Ampere

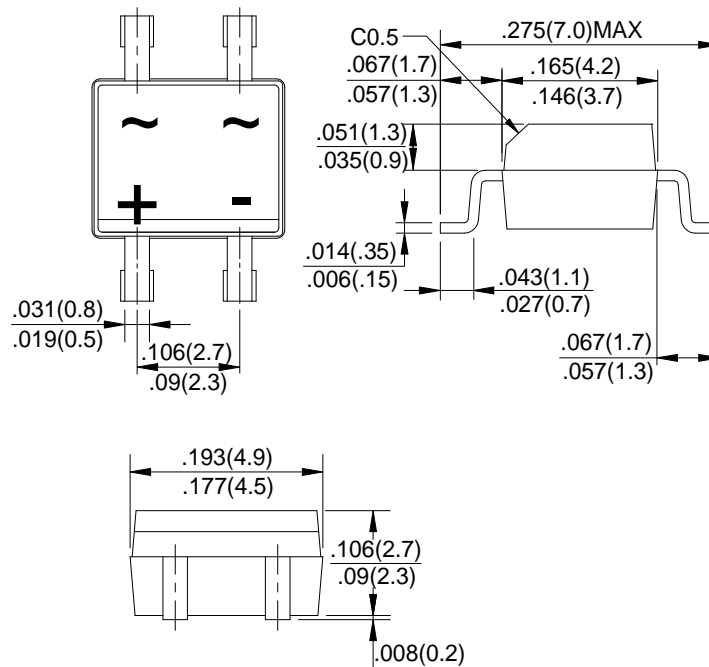
**Features**

- For surface mounted applications
- Metal-Semiconductor junction with guarding
- Epitaxial construction
- Very low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

**MECHANICAL DATA**

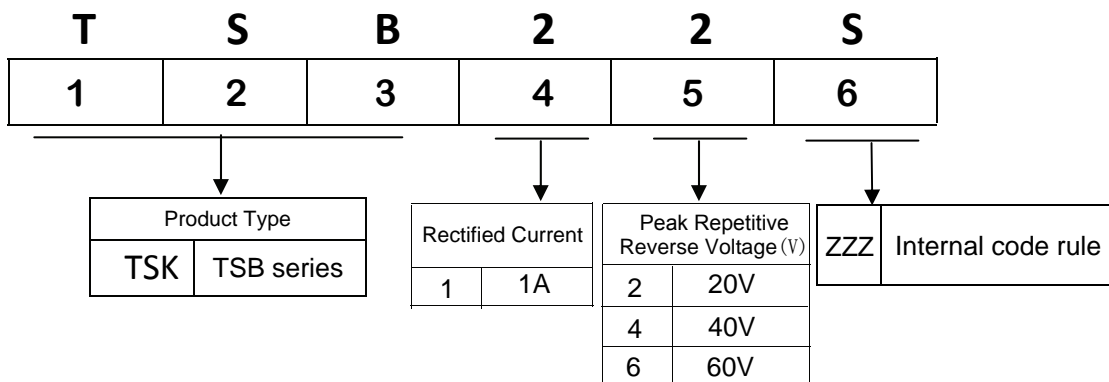
- Case: Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.0044 ounces, 0.125 grams

**Dimensions In Inches and (millimeters)**



**MBS-2**

**Part Number Code**



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	TSB12S	TSB13S	TSB14S	TSB15S	TSB16S	TSB18S	TSB110S	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current @T <sub>L</sub> =100 °C	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I <sub>FSM</sub>	40							A
Maximum Forward Voltage at 1.0A DC	V <sub>F</sub>	0.55		0.70		0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	1.0 10							mA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	110							pF
Typical Thermal Resistance (Note2)	R <sub>θJL</sub>	20							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to + 125							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150							°C

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance junction to lead.

3.The typical data above is for reference only(典型值仅供参考).

RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

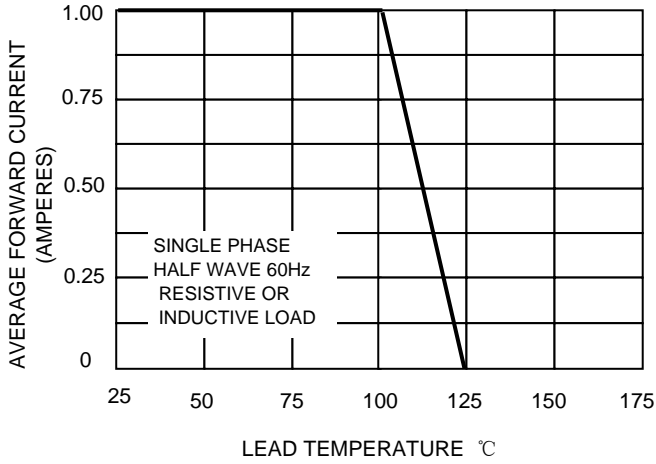


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

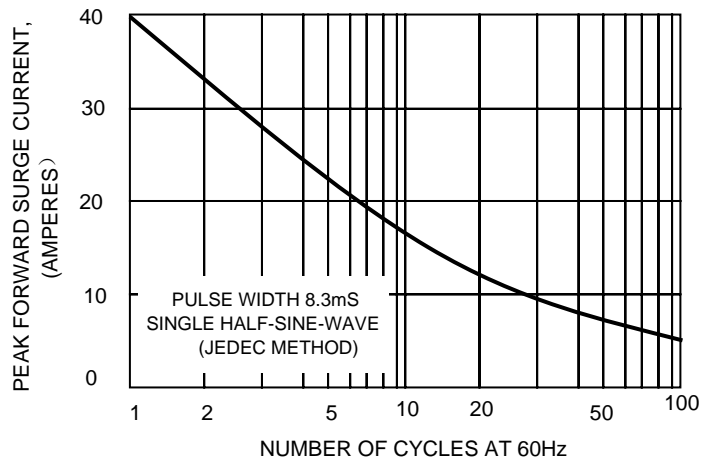


FIG.3-TYPICAL FORWARD CHARACTERISTICS

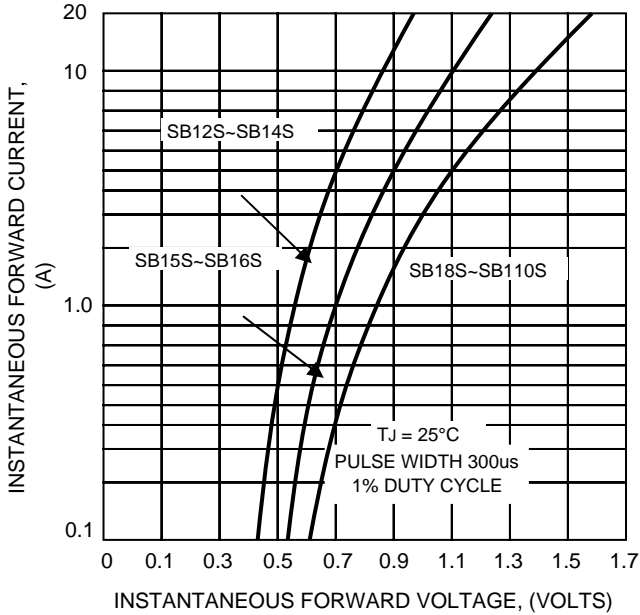


FIG.4-TYPICAL JUNCTION CAPACITANCE

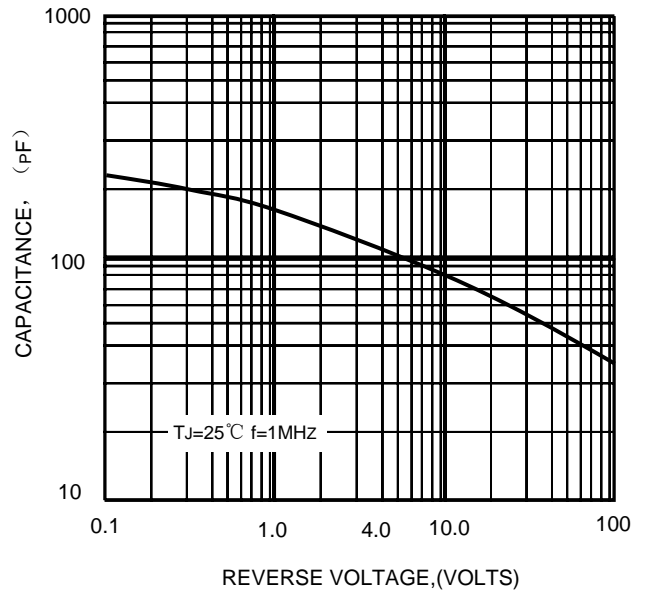


FIG.5-TYPICAL REVERSE CHARACTERISTICS

