

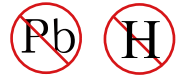


YEA SHIN TECHNOLOGY CO., LTD

SB120 THRU SB1200

1 AMPERE SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 200 Volts CURRENT - 1.0 Ampere

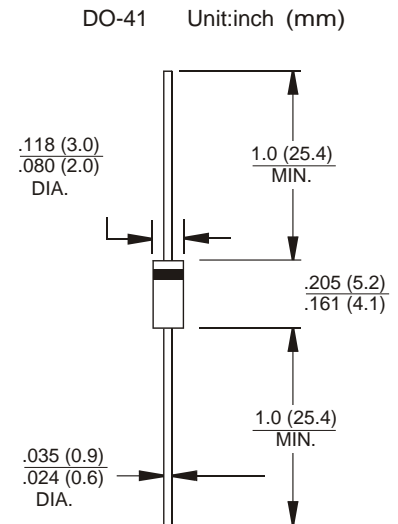


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- 1 ampere operation at TA=75°C with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage,high frequency inverters ,free wheeling , and polarity protection applications .
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: DO-41 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-202,Method 208
- Polarity: Color band denotes cathode
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

| | SB120 | SB130 | SB140 | SB150 | SB160 | SB180 | SB1100 | SB1200 | UNIT |
|---|-------------|-------|-------|-------------|-------|-------|--------|--------|------|
| Peak Reverse Voltage,Repetitive ; VRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 200 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 140 | V |
| DC Reverse Voltage; VR | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 200 | V |
| Maximum Forward Voltage at 1.0A | 0.50 | | | 0.70 | | 0.85 | | 0.95 | v |
| Maximum Average Forward Rectified Current .375" Lead Length at TA=75°C | 1.0 | | | | | | | | A |
| Peak Forward Surge Current, IFM (surge):8. 3ms single half sine-wave superimposed on rated load(JEDEC method) | 30.0 | | | | | | | | A |
| Maximum Full Load Reverse Current,Full Cycle Average at TA=75°C | 30.0 | | | | | | | | mA |
| Maximum DC Reverse Current at TA=25°C | 0.5 | | | | | | | | mA |
| At Rated DC Blocking Voltage TA=100°C | 10.0 | | | | | | | | mA |
| Typical Junction capacitance (Note 1) | 110 | | | | | | | | pF |
| Typical Thermal Resistance RθJA (Note 2) | 80 | | | | | | | | /W |
| Operating Temperature Range TJ | -55 to +125 | | | -55 to +150 | | | | | |

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Thermal Resistance from Junction to Ambient .

DEVICE CHARACTERISTICS

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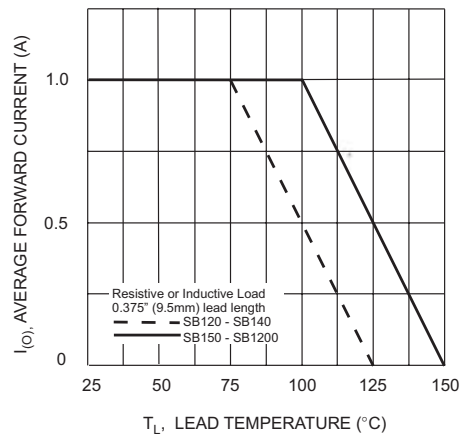


Fig. 1 Forward Current Derating Curve

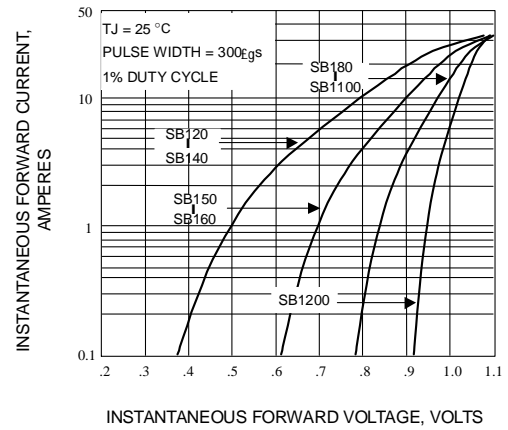


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

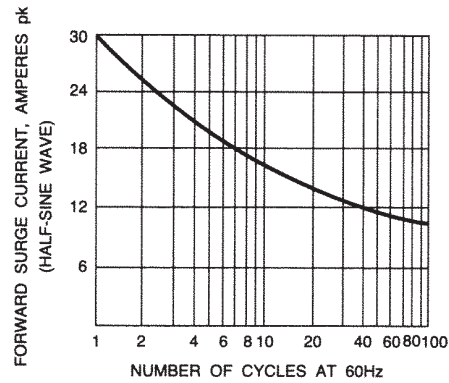


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

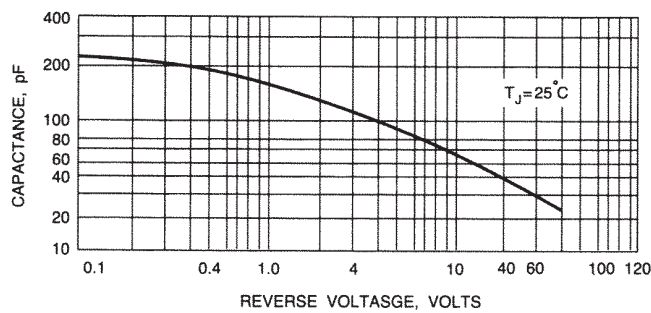


Fig. 4 - TYPICAL JUNCTION CAPACITANCE