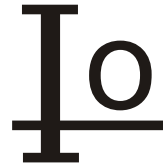


SB1020 THRU SB10150



10.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction
- * Lead Free Finish/RoHS Compliant

MECHANICAL DATA

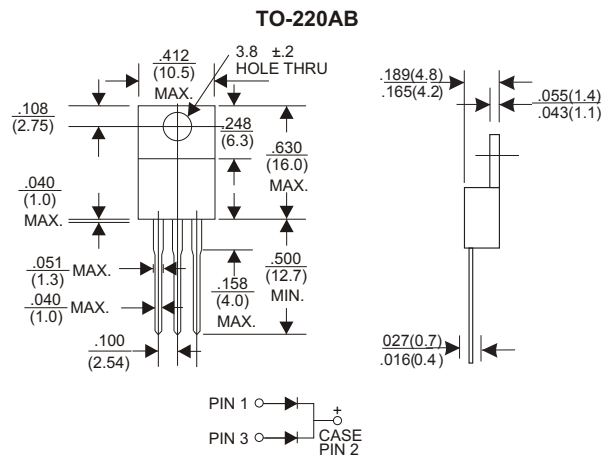
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 1.81 grams

VOLTAGE RANGE

10 to 150Volts

CURRENT

10.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER | SB1020 | SB1030 | SB1040 | SB1050 | SB1060 | SB1080 | SB10100 | SB10150 | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|--------|------------|--------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V |
| Maximum Average Forward Rectified Current See Fig. 1 | 10 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 150 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage per Leg at 5.0A | 0.65 | | 0.75 | | 0.85 | | 0.90 | | V |
| Maximum DC Reverse Current Ta=25°C | 500 | | | | | | | | uA |
| at Rated DC Blocking Voltage Ta=100°C | 100 | | | | | | | | mA |
| Typical Junction Capacitance (Note1) | 700 | | | | 460 | | | | pF |
| Typical Thermal Resistance R _{JC} (Note 2) | 100 | | | | | | | | °C/W |
| Operating Temperature Range T _J | -65 — +125 | | | | -65 — +150 | | | | °C |
| Storage Temperature Range T _{STG} | -65 — +150 | | | | | | | | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (SB1020 THRU SB10150)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

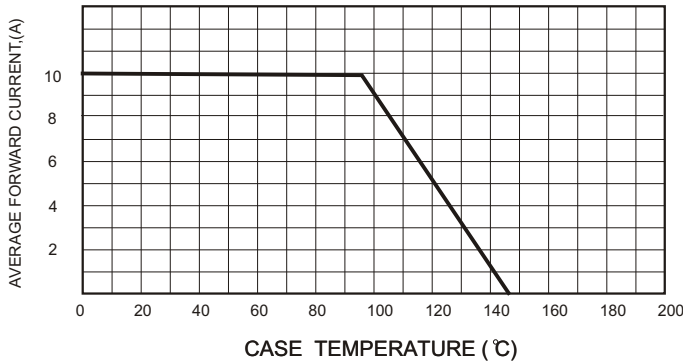


FIG.2-TYPICAL FORWARD CHARACTERISTICS

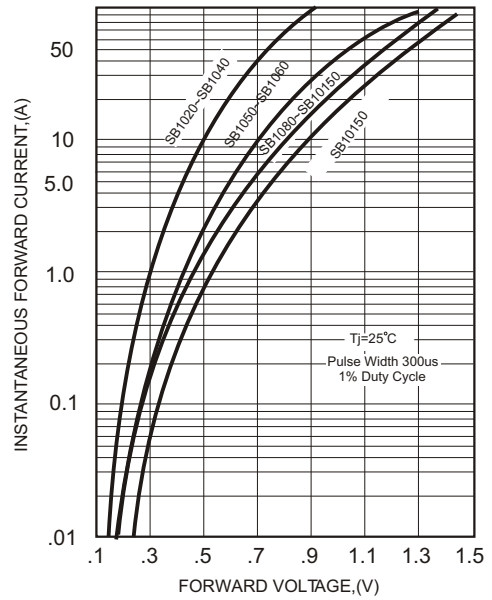


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

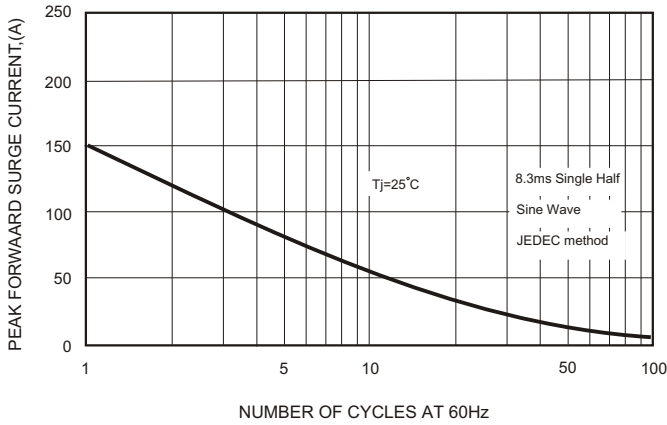


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

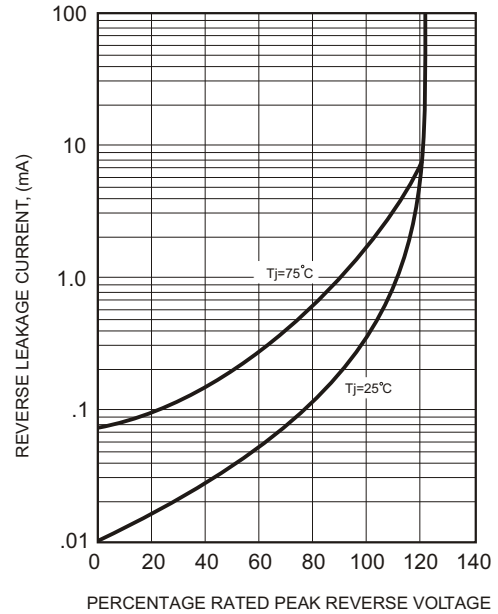


FIG.4-TYPICAL JUNCTION CAPACITANCE

