

SB120 THRU SB1200



1.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

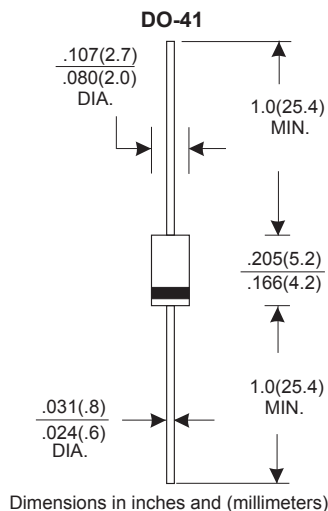
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.34 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn, 5~20%Pb
- * Pb free: 99 Sn above can meet Rohs environment substance directive request

VOLTAGE RANGE

20 to 200 Volts

CURRENT

1.0 Ampere



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 | SB120 | SB140 | SB160 | SB180 | SB1100 | SB1150 | SB1200 | UNITS |
|--|------------|-------|------------|-------|--------|--------|------------------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 40 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | 14 | 28 | 42 | 56 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | 20 | 40 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current | | | | | | | | A |
| See Fig. 1 | 1.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 30 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 0.55 | 0.70 | 0.85 | | | | V | |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$ | 500 | | | | | | | μA |
| at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$ | 10 | | | | | | | mA |
| Typical Junction Capacitance (Note 1) | 110 | | | | | | | pF |
| Typical Thermal Resistance R θ JA (Note 2) | 50 | | | | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range T $_j$ | -65 — +125 | | -65 — +150 | | | | $^\circ\text{C}$ | |
| Storage Temperature Range T $_{stg}$ | -65 — +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SB120 THRU SB1200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

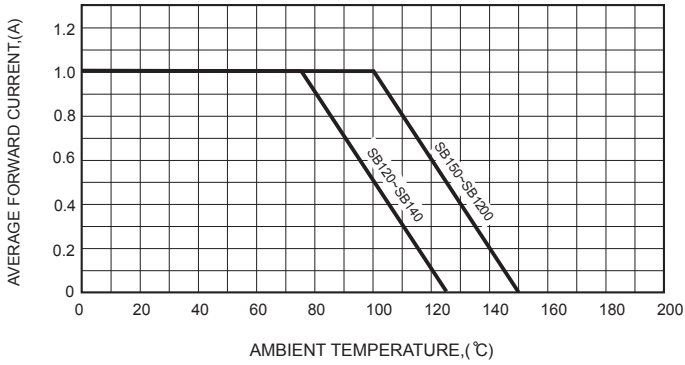


FIG.2-TYPICAL FORWARD CHARACTERISTICS

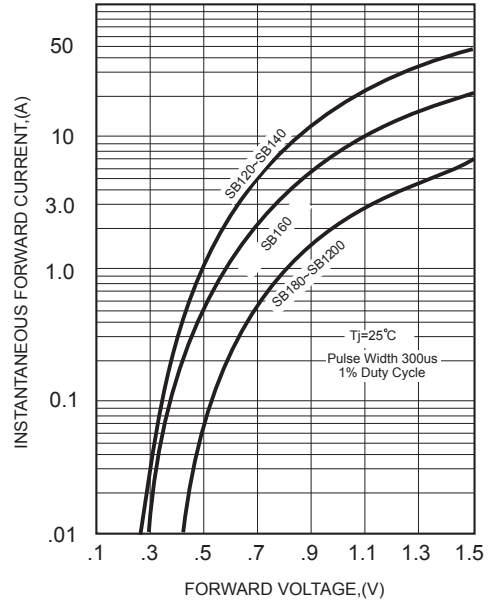


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

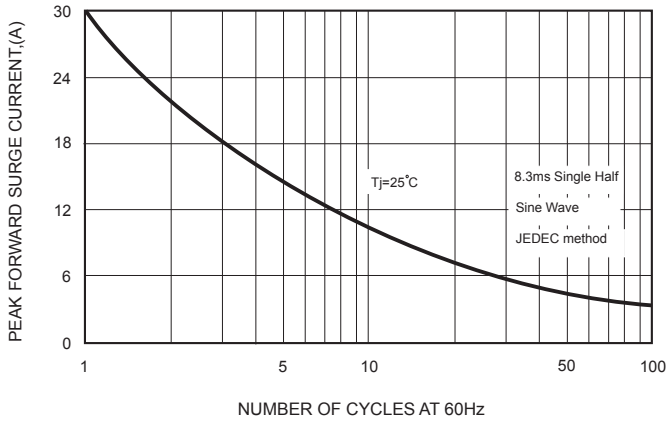


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

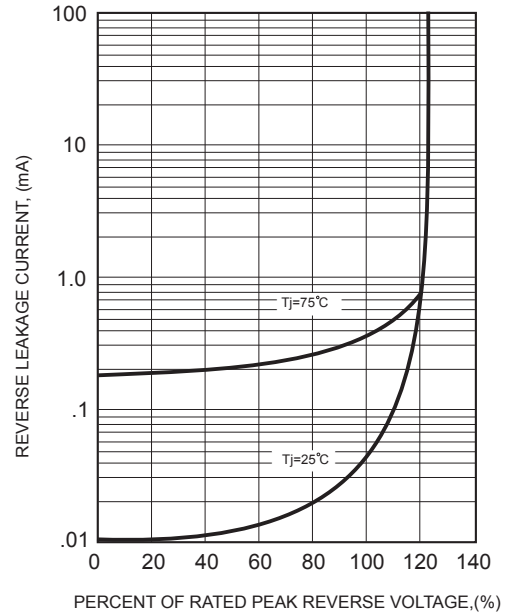


FIG.4-TYPICAL JUNCTION CAPACITANCE

