

SB1020 THRU SB1060

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 60V

CURRENT: 10.0A



FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability

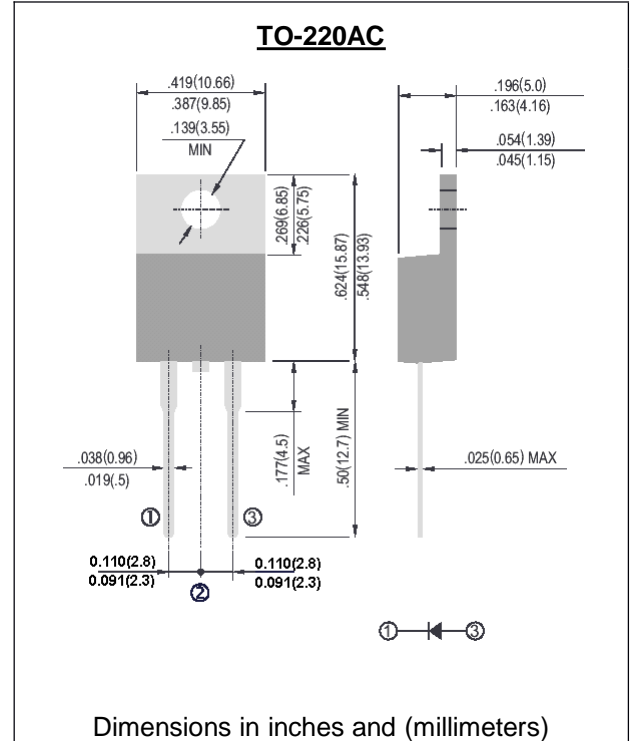
MECHANICAL DATA

Terminal: Plated axial leads solderable per
MIL-STD 202E, method 208C

Case: Molded with UL-94 Class V-0 recognized Flame
Retardant Epoxy

Polarity: AS MARKED

Mounting position: any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | SB1020 | SB 1030 | SB 1040 | SB 1050 | SB 1060 | units |
|---|-----------------------------------|-------------|------------|------------|-------------|------------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | V _{rms} | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC blocking Voltage | V _{dc} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current (See Fig 1) | I _{f(av)} | 10.0 | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 150.0 | | | | | A |
| Maximum Forward Voltage at 10.0A DC | V _f | 0.65 | | 0.80 | | | V |
| Maximum DC Reverse Current at rated DC blocking voltage Ta = 25°C Ta = 125°C (Note 1) | I _r | 1.0 30.0 | | | | | mA mA |
| Typical Thermal Resistance (Note 2) | R(jc) | 2.5 | | | | | °C/W |
| Storage and Operating Junction Temperature | T _{stg} , T _j | -65 to +125 | | | -65 to +150 | | °C |

Note:

1. Pules Test: 300Us Pulse Wiath ,1%Duty Cycle
2. Thermal Resistance From Junction To Case

FIG.1-FORWARD CURRENT DERATING CURVE

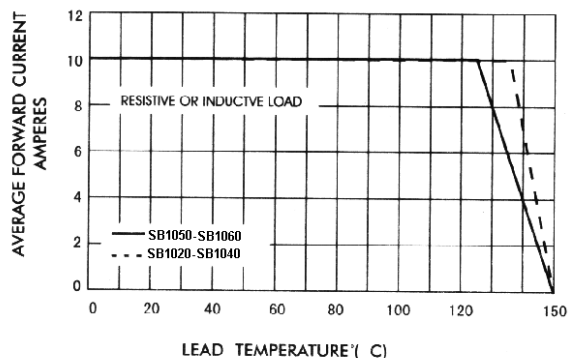


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

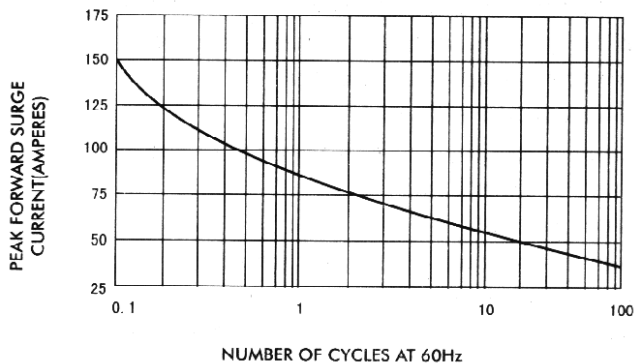


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

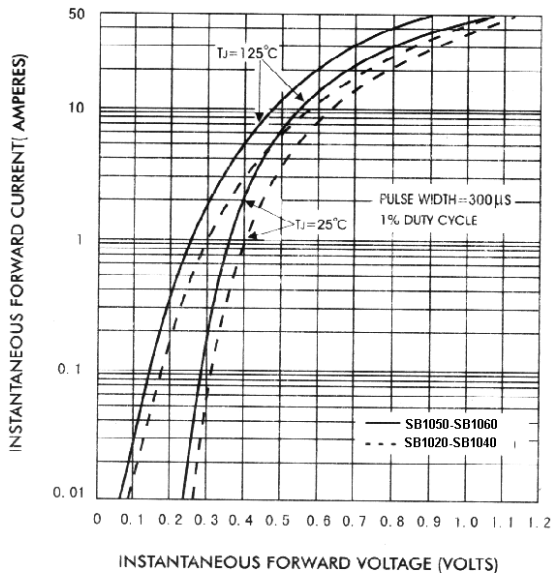


FIG.4-TYPICAL REVERSE CHARACTERISTICS

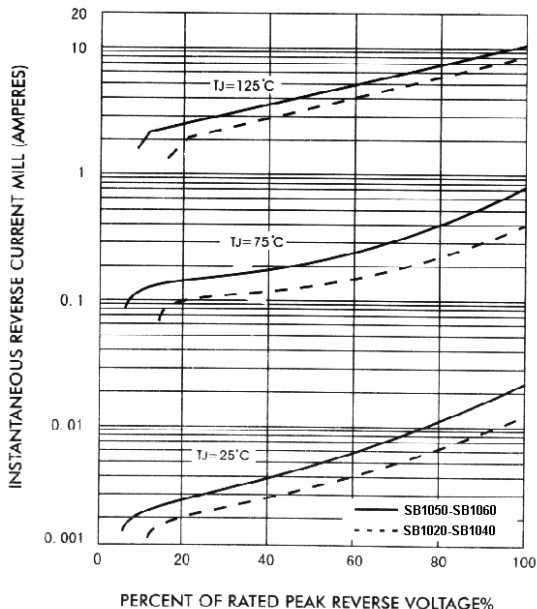


FIG.5-TYPICAL JUNCTION CAPACITANCE

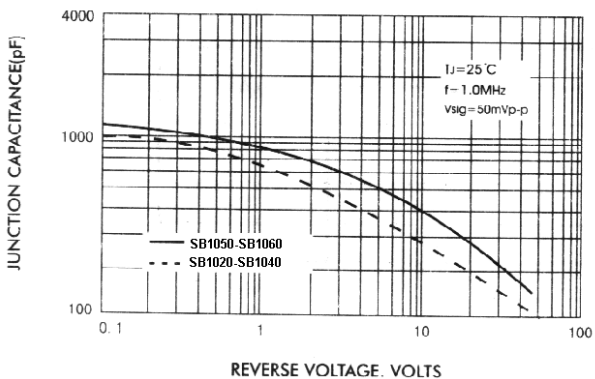


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCES

