

SB120 - SB1B0

PRV : 20 - 100 Volts
I_o : 1.0 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Low cost
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.312 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

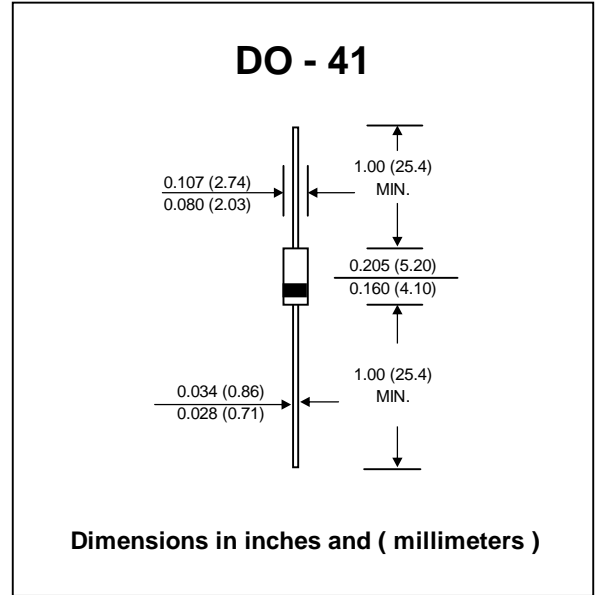
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

| RATING | SYMBOL | SB | SB | SB | SB | SB | SB | SB | SB | SB | UNIT | |
|---|--------------------|---------------|-----|-----|-----|-----|---------------|------|-----|-----|------|----|
| | | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 1B0 | | |
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | V | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | V | |
| Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1 | I _{F(AV)} | 1.0 | | | | | | | | | A | |
| Maximum Peak Forward Surge Current, 8.3ms single half sine wave Superimposed on rated load (JEDEC Method) T _L = 75°C | I _{FSM} | 40 | | | | | | | | | A | |
| Maximum Forward Voltage at I _F = 1.0 A (Note 2) | V _F | 0.5 | | | 0.7 | | | 0.79 | | | V | |
| Maximum Reverse Current at Ta = 25 °C | I _R | 0.5 | | | | | | | | | mA | |
| Rated DC Blocking Voltage (Note 1) Ta = 100 °C | I _{R(H)} | 10 | | | 5.0 | | | | | | mA | |
| Typical Thermal Resistance (Note 2) | R _{θJL} | 15 | | | | | | | | | °C/W | |
| Junction Temperature Range | T _J | - 40 to + 125 | | | | | - 65 to + 150 | | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | | | | | | | | °C | |

Notes :

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.
- (2) Thermal Resistance from junction to lead, PC board Mounting with 0.375" (9.5mm) Lead Lengths.

SCHOTTKY BARRIER RECTIFIER DIODES





RATING AND CHARACTERISTIC CURVES (SB120 - SB1B0)

FIG.1 - FORWARD CURRENT DERATING CURVE

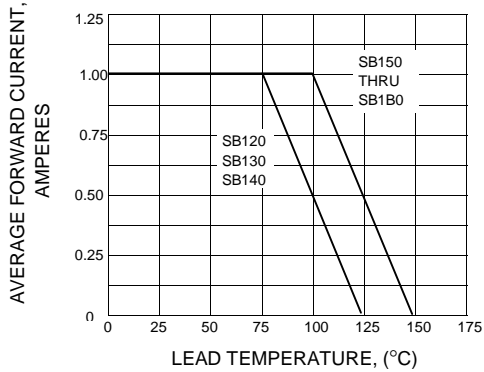


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

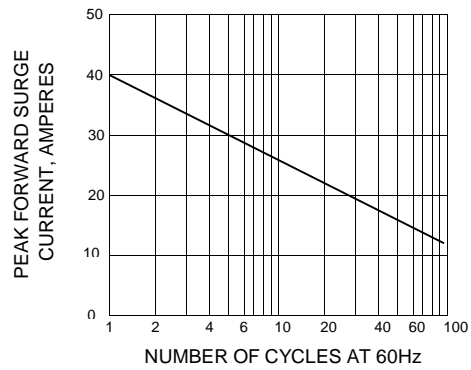


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

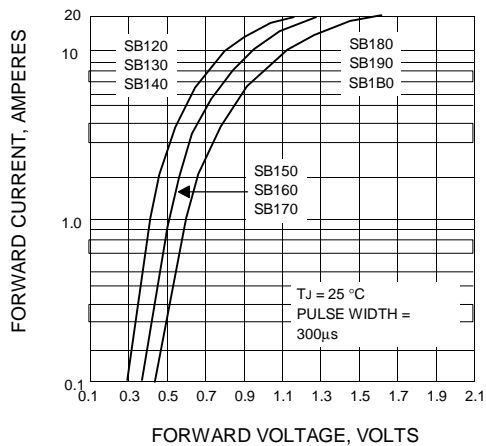


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

