



DATA SHEET

SB520 thru SB5150

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 150 Volts **CURRENT** 5 Amperes

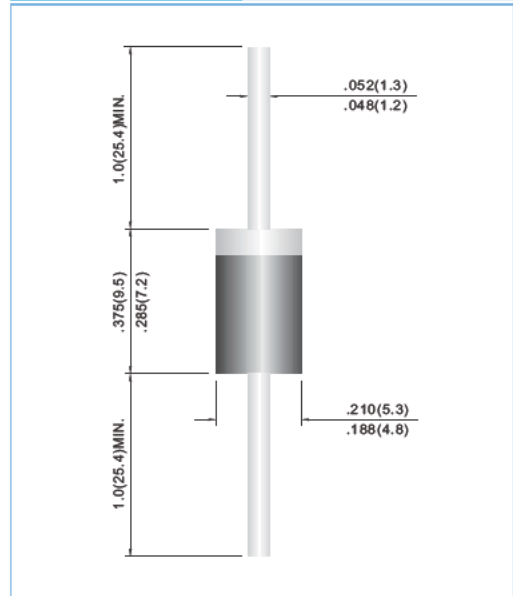
DO-201AD Unit: inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available: 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: DO-201AD Molded plastic
 Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode
 Mounting Position: Any
 Weight: 0.04 ounces, 1.1 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

| PARAMETER | SYMBOL | SB520 | SB530 | SB540 | SB550 | SB560 | SB580 | SB5100 | SB5150 | UNITS | |
|--|------------------|-------------|-------|-------|-------|-------|-------|--------|--------|--------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | V | |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T _L =60°C | I _{AV} | 5 | | | | | | | | A | |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I _{FSM} | 150 | | | | | | | | A | |
| Maximum Forward Voltage at 5.0A | V _F | 0.55 | | 0.70 | | 0.85 | | 0.92 | | V | |
| Maximum DC Reverse Current T _A =25°C at Rated DC Blocking Voltage T _A =100°C | I _R | 0.5 | | | | 50 | | | | | mA |
| Maximum Thermal Resistance (Note 1) | R _{θJL} | 15 | | | 10 | | | | | °C / W | |
| Operating Junction Temperature Range | T _J | -50 to +125 | | | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -50 to +150 | | | | | | | | | °C |

NOTES:

1. Thermal Resistance Junction to Lead Vertical PC Board Mounting .375" (9.5mm) Lead Lengths.



RATING AND CHARACTERISTIC CURVES

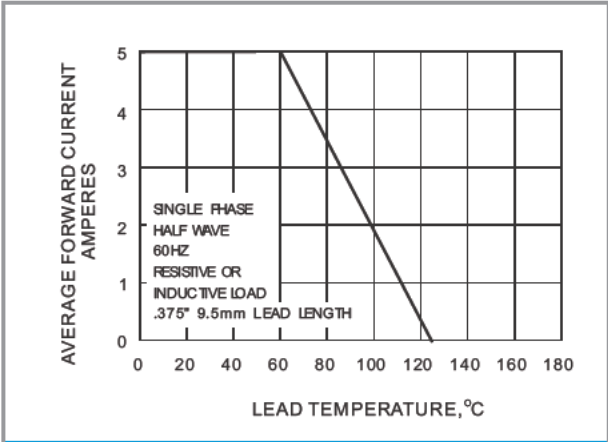


Fig.1- FORWARD CURRENT DERATING CURVE

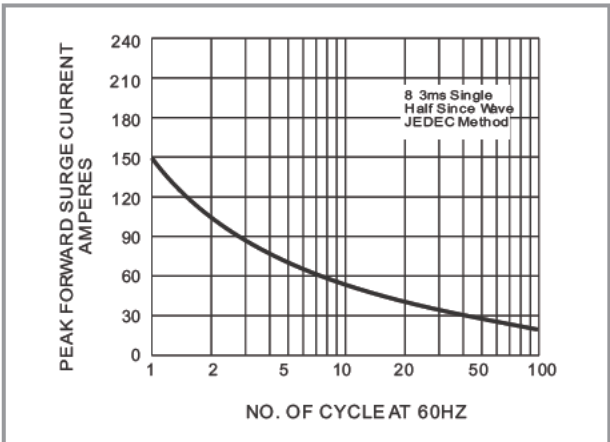


Fig.2- TMAXIMUM NON - REPETITIVE SURGE CURRENT

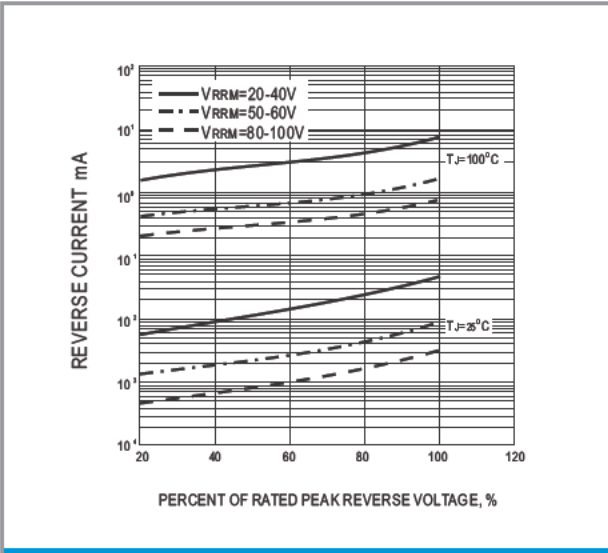


Fig.3- TYPICAL REVERSE CHARACTERISTIC

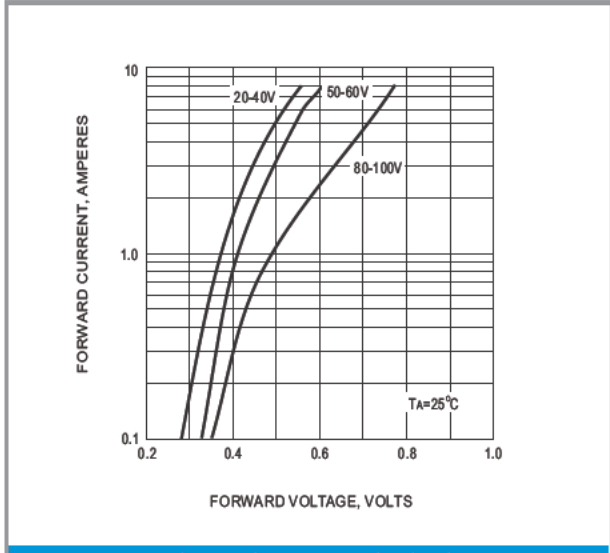


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC