

SB540

5.0AMPS. SCHOTTKY BARRIER RECTIFIERS

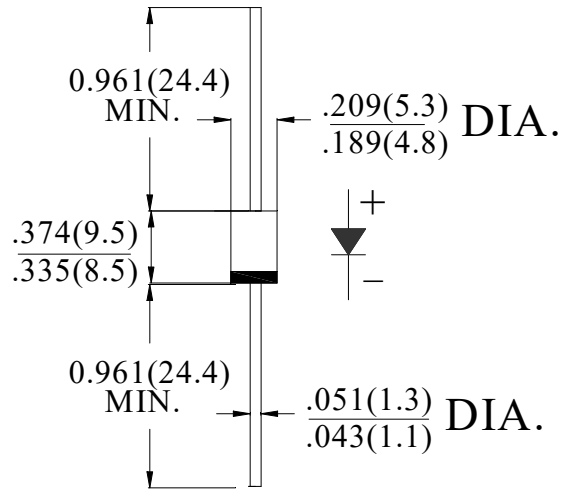
FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed
260°C /10sec/ 0.375" lead length at 5 lbs tension

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: color band denotes cathode
- . Mounting position: any

DO-27/DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 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 | SYM BOL | SB540 | units |
|---|-------------|-------------|---------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 40 | V |
| Maximum RMS Voltage | V_{RMS} | 28 | V |
| Maximum DC blocking Voltage | V_{DC} | 40 | V |
| Maximum Average Forward Rectified Current .375"(9.5mm) lead length | $I_{F(AV)}$ | 5.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 120.0 | A |
| Maximum Forward Voltage at 5.0A DC | V_F | 0.55 | V |
| Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at rated DC blocking voltage @ $T_J=100^{\circ}C$ | I_R | 0.2 10.0 | mA |
| Typical Junction Capacitance (Note 1) | C_J | 270 | pF |
| Typical Thermal Resistance (Note 2) | $R_{(JA)}$ | 45 | $^{\circ}C/W$ |
| Storage Temperature | T_{STG} | -55 to +150 | $^{\circ}C$ |
| Operation Junction Temperature | T_J | -55 to +125 | $^{\circ}C$ |

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, vertical P.C.Board Mounted.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

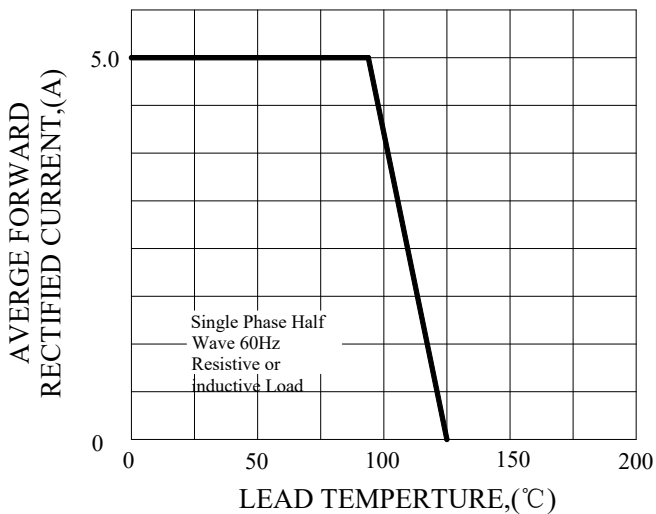


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

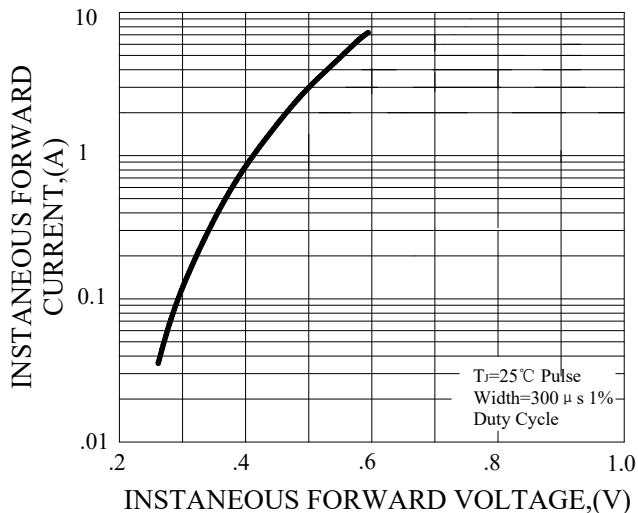


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

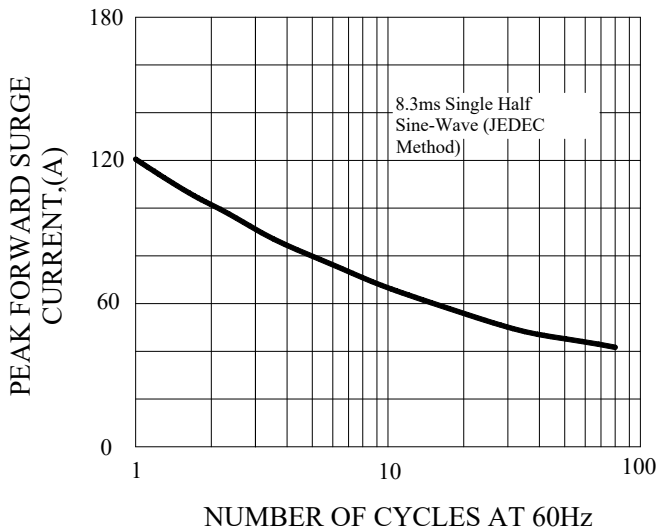
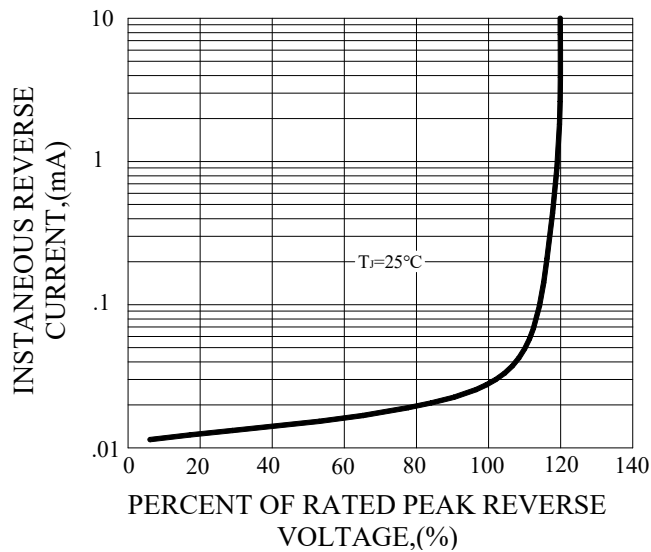
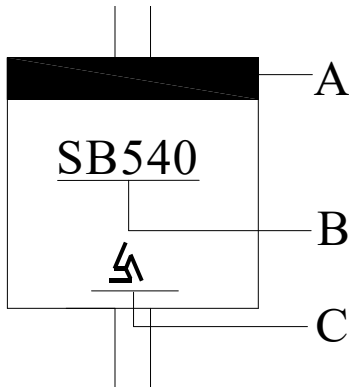


FIG.4-TYPICAL REVERSE CHARACTERISTICS



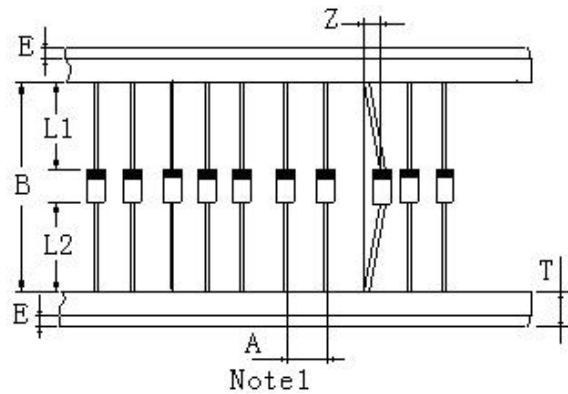
Marking and packaging illustration

1、Marking



| SYMBOL | Explanation |
|--------|----------------------------|
| A | Color Band Denotes Cathode |
| B | Product Name |
| C | Trademark |

2、Packaging



Note1

| ITEM | SYMBOL | SPECIFICATIONS (mm) | SPECIFICATIONS (inch) |
|---|--------|------------------------|--------------------------|
| Component alignment | Z | 1.2max | 0.048max |
| Tape width | T | 6.0±0.4 | 0.236±0.016 |
| Exposed adhesive | E | 0.8max | 0.032max |
| Body eccentricity | L1-L2 | 1.0max | 0.040max |
| Component | A | 10.0±0.5 | 0.4±0.02 |
| Inner tap | B | 52.0~53.5 | 2.05~2.11 |
| NOTE: Each component lead shall be sandwiched between tapes for a minimum of 2.5mm (0.1inch) | | | |