

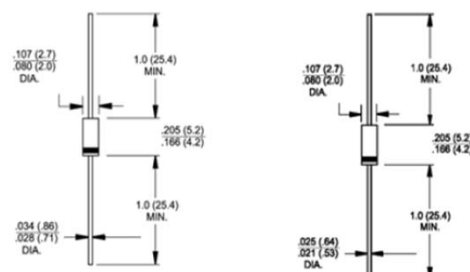
#### Features

- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



DO-204AL (DO-41)

A-405



Dimensions in inches and (millimeters)      Dimensions in inches and (millimeters)

Note: Lead diameter is 0.025(0.64)/0.021(0.53) for suffix "S" part numbers

#### Mechanical Data

- Case: JEDEC DO-204AL(DO-41)/A-405 molded plastic
- Polarity: Color band denotes cathode end
- Weight: DO-41-0.012 ounce, 0.33 gram  
A-405-0.008 ounce, 0.22 gram
- Mounting position: Any

#### 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%

| PARAMETER                                                                                         |                      | SYMBOL           | SB170         | SB180 | SB190 | SB1B0 | UNIT |
|---------------------------------------------------------------------------------------------------|----------------------|------------------|---------------|-------|-------|-------|------|
| Maximum repetitive peak reverse voltage                                                           |                      | VRRM             | 70            | 80    | 90    | 100   | V    |
| Maximum RMS voltage                                                                               |                      | VRMS             | 49            | 56    | 63    | 70    | V    |
| Maximum DC blocking voltage                                                                       |                      | VDC              | 70            | 80    | 90    | 100   | V    |
| Maximum average forward rectified current<br>0.375"(9.5mm) lead length    at T <sub>L</sub> =100℃ |                      | IF(AV)           | 1.0           |       |       |       | A    |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load                |                      | IFSM             | 30            |       |       |       | A    |
| Maximum forward voltage at 1A DC<br>T <sub>A</sub> =25℃<br>T <sub>A</sub> =100℃                   |                      | VF               | 0.79<br>0.69  |       |       |       | V    |
| Maximum DC reverse current at rated DC blocking voltage <sup>(1)</sup>                            | T <sub>J</sub> =25℃  | IR               | 0.05          |       |       |       | mA   |
|                                                                                                   | T <sub>J</sub> =125℃ |                  | 1             |       |       |       |      |
| Typical junction capacitance (Note 1)                                                             |                      | C <sub>J</sub>   | 30            |       |       |       | pF   |
| Typical thermal resistance(Note 2)                                                                |                      | R <sub>θJA</sub> | 76            |       |       |       | ℃/W  |
|                                                                                                   |                      | R <sub>θJC</sub> | 41            |       |       |       |      |
|                                                                                                   |                      | R <sub>θJL</sub> | 32            |       |       |       |      |
| Operating junction temperature range                                                              |                      | T <sub>J</sub>   | - 55 to + 150 |       |       |       | ℃    |
| storage temperature range                                                                         |                      | T <sub>STG</sub> | - 55 to + 150 |       |       |       | ℃    |

Notes: 1. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC

2. Thermal Resistance at .375(9.5mm) Lead Length, PC Board Mounted

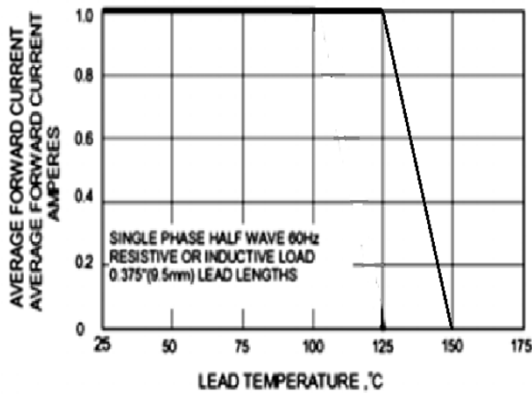
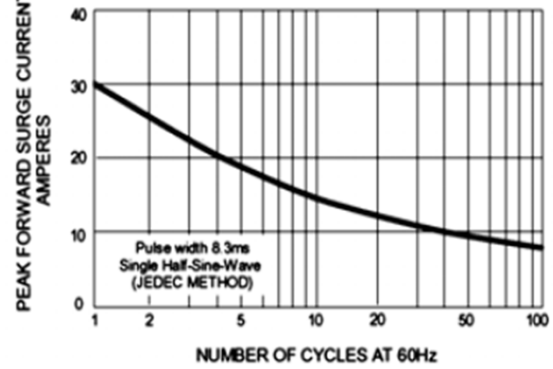
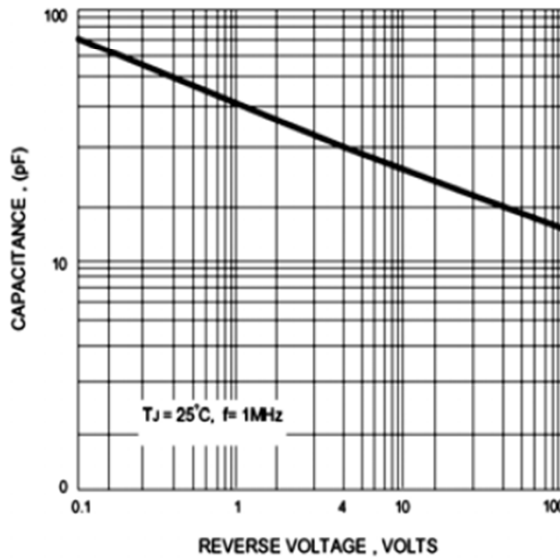
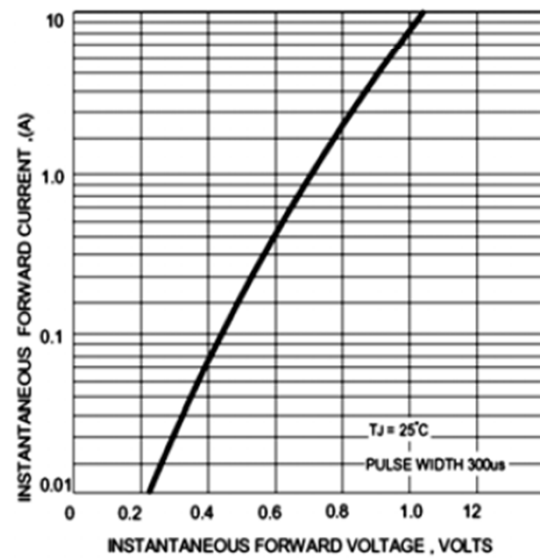


GOOD-ARK

**SB170 thru SB1B0**

Schottky Barrier Rectifiers

Reverse Voltage 70V to 100V Forward Current 1.0A Amperes

**RATINGS AND CHARACTERISTICS CURVES****FIG.1 - FORWARD CURRENT DERATING CURVE****FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT****FIG.3 - TYPICAL JUNCTION CAPACITANCE****FIG.4 - TYPICAL FORWARD CHARACTERISTICS****FIG.5 - TYPICAL REVERSE CHARACTERISTICS**