



Certificate Number: Q10561



Certificate Number: E17276

## SB320S - SB3B0S

**PRV : 20 - 100 Volts**  
**I<sub>o</sub> : 3.0 Amperes**

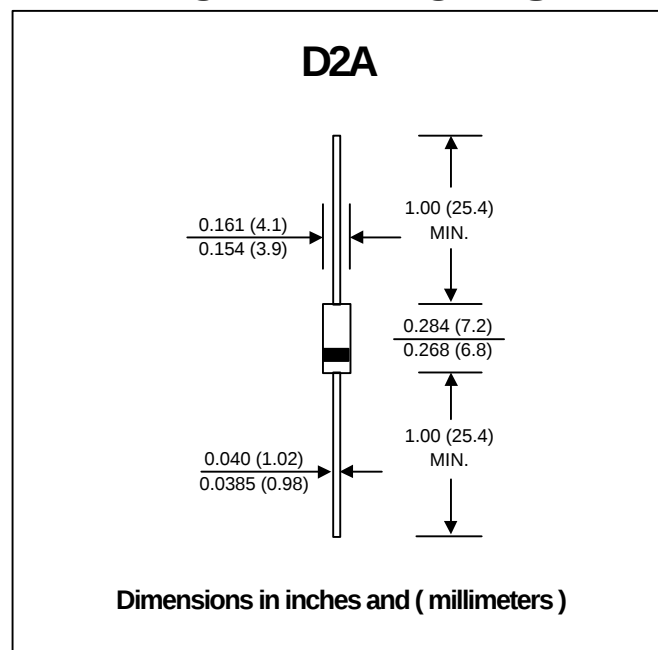
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low forward voltage drop

### MECHANICAL DATA :

- \* Case : D2A 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 : 0.645 gram

## SCHOTTKY BARRIER RECTIFIER DIODES



## 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 320S       | SB 330S | SB 340S | SB 350S       | SB 360S | SB 370S | SB 380S | SB 390S | SB 3B0S | UNITS |
|---------------------------------------------------------------------------------------------------------|--------------------|---------------|---------|---------|---------------|---------|---------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | V <sub>RRM</sub>   | 20            | 30      | 40      | 50            | 60      | 70      | 80      | 90      | 100     | Volts |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub>   | 14            | 21      | 28      | 35            | 42      | 49      | 56      | 63      | 70      | Volts |
| Maximum DC Blocking Voltage                                                                             | V <sub>DC</sub>    | 20            | 30      | 40      | 50            | 60      | 70      | 80      | 90      | 100     | Volts |
| Maximum Average Forward Current<br>0.375", 9.5mm Lead Length See Fig.1                                  | I <sub>F(AV)</sub> | 3.0           |         |         |               |         |         |         |         |         | Amps. |
| Peak Forward Surge Current,<br>8.3ms single half sine wave superimposed<br>on rated load (JEDEC Method) | I <sub>FSM</sub>   | 80            |         |         |               |         |         |         |         |         | Amps. |
| Maximum Forward Voltage at I <sub>F</sub> = 3.0 Amps.                                                   | V <sub>F</sub>     | 0.5           |         |         | 0.74          |         |         | 0.79    |         |         | Volt. |
| Maximum Reverse Current at Ta = 25 °C                                                                   | I <sub>R</sub>     | 0.5           |         |         |               |         |         |         |         |         | mA    |
| Rated DC Blocking Voltage (Note 1) Ta = 100 °C                                                          | I <sub>R(H)</sub>  | 20            |         |         |               |         |         |         |         |         | mA    |
| Junction Temperature Range                                                                              | T <sub>J</sub>     | - 65 to + 125 |         |         | - 65 to + 150 |         |         |         |         |         | °C    |
| Storage Temperature Range                                                                               | T <sub>STG</sub>   | - 65 to + 150 |         |         |               |         |         |         |         |         | °C    |

### Notes :

(1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%

UPDATE : MAY 10, 1999

## RATING AND CHARACTERISTIC CURVES ( SB320S - SB3B0S )

FIG.1 - FORWARD CURRENT DERATING CURVE

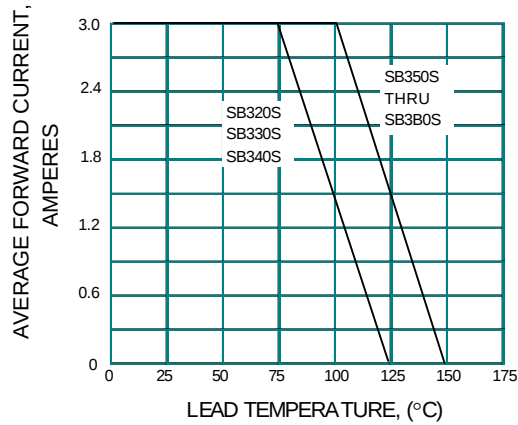


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

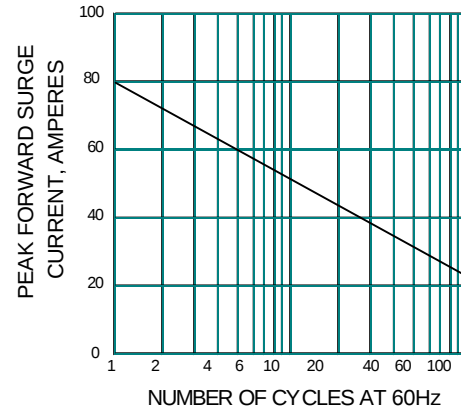


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

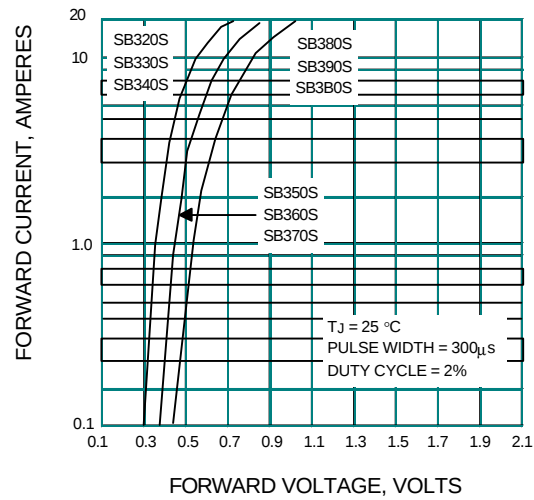


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

