

## SS530B

### 5.0AMPS. SCHOTTKY BARRIER RECTIFIERS

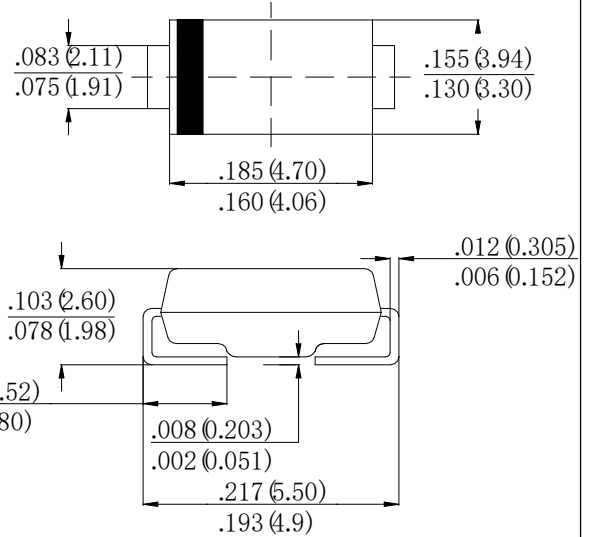
#### FEATURE

- . For surface mounted application
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge current capability
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.

#### MECHANICAL DATA

- . Case :SMB(DO-214AA)
- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized  
Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Packaging:12mm tape per EIA STD RS-481
- . Weight: 0.096 grams
- . Mounting position: any

#### SMB (DO-214AA)



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<br>BOL  | SS530B       | units                     |
|---------------------------------------------------------------------------------------------------------------|-------------|--------------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                        | $V_{RRM}$   | 300          | V                         |
| Maximum RMS Voltage                                                                                           | $V_{RMS}$   | 210          | V                         |
| Maximum DC blocking Voltage                                                                                   | $V_{DC}$    | 300          | V                         |
| Maximum Average Forward Rectified Current<br>at $T_L=90^\circ\text{C}$                                        | $I_{F(AV)}$ | 5.0          | A                         |
| Peak Forward Surge Current 8.3ms single half<br>sine- wave superimposed on rated load (JEDEC<br>method)       | $I_{FSM}$   | 120.0        | A                         |
| Maximum Forward Voltage at 5.0A DC                                                                            | $V_F$       | 0.95         | V                         |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_J=125^\circ\text{C}$ | $I_R$       | 5.0<br>500.0 | $\mu\text{A}$             |
| Typical Junction Capacitance (Note1)                                                                          | $C_J$       | 65           | pF                        |
| Typical Thermal Resistance (Note 2)                                                                           | $R_{(JA)}$  | 75           | $^\circ\text{C}/\text{W}$ |
|                                                                                                               | $R_{(JC)}$  | 22           |                           |
| Storage Temperature                                                                                           | $T_{STG}$   | -55to+150    | $^\circ\text{C}$          |
| Operation Junction Temperature                                                                                | $T_J$       | -55to +150   | $^\circ\text{C}$          |

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with 0.2×0.2”(5.0×5.0mm)Copper Pad Areas.

## Rating and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

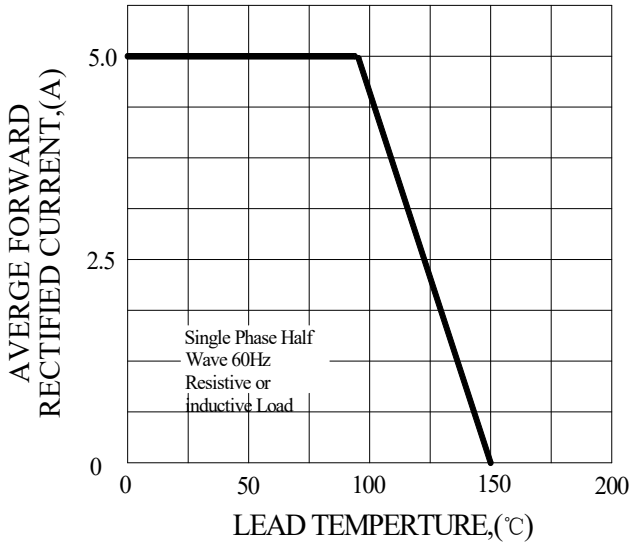


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

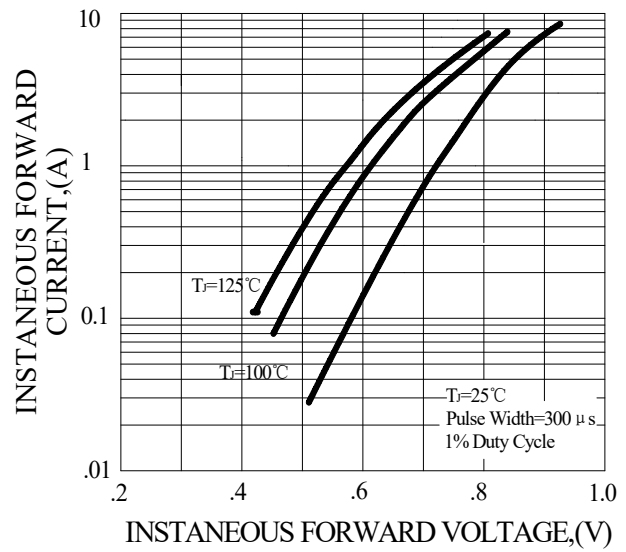


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

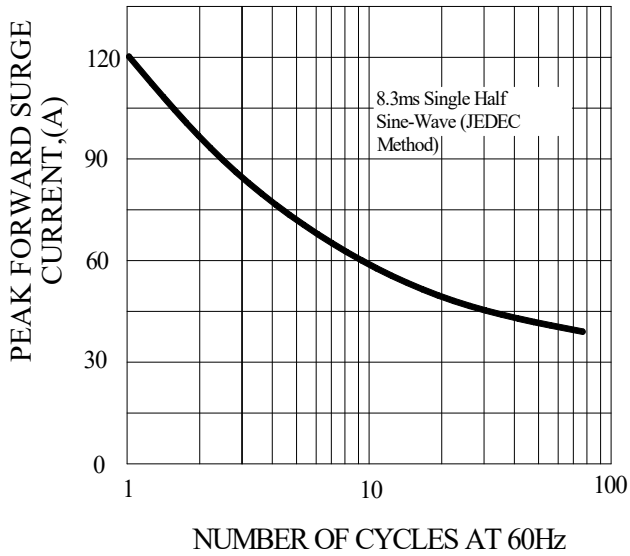
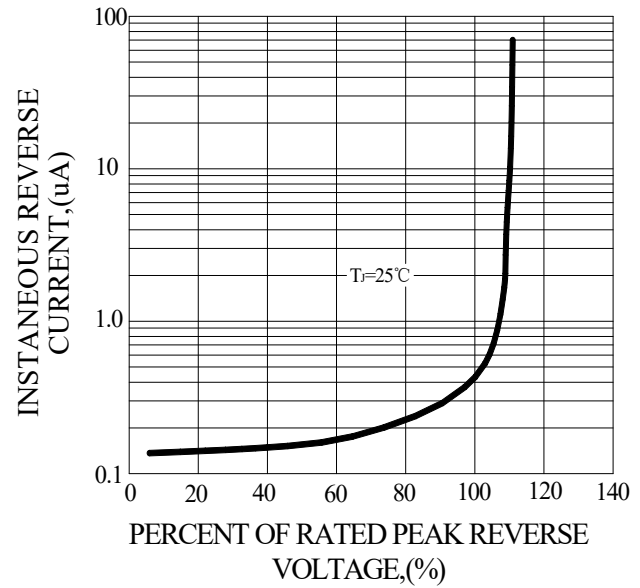
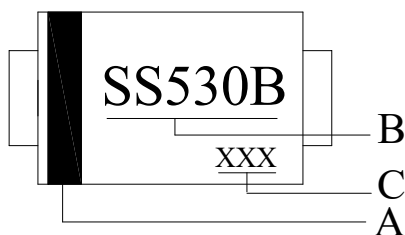


FIG.4-TYPICAL REVERSE CHARACTERISTICS



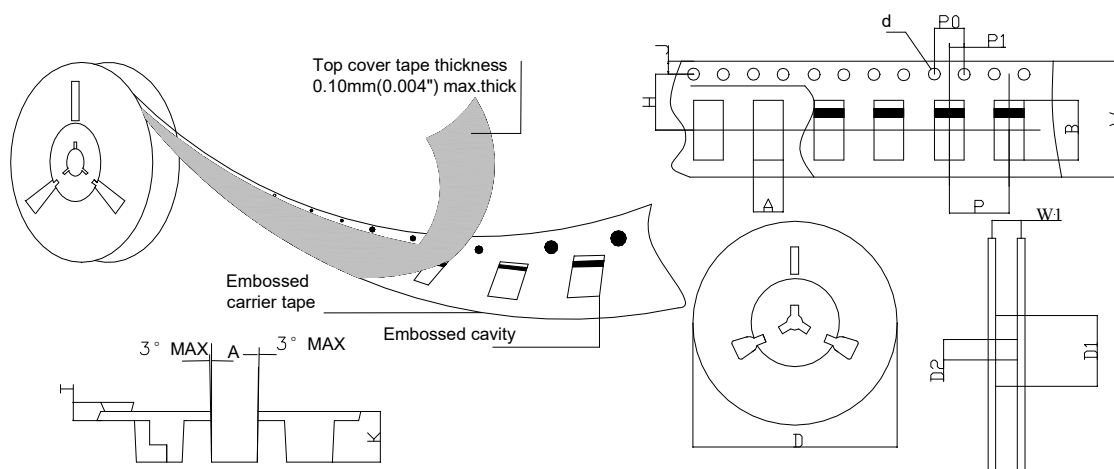
## Marking and packaging illustration

### 1、Marking



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

### 2、Packaging



| SPECIFICATIONS<br>mm(inch) |            | PACKAGE           | SPECIFICATIONS<br>mm(inch) |            | PACKAGE           |
|----------------------------|------------|-------------------|----------------------------|------------|-------------------|
| ITEM                       | SYM<br>BOL | SMB<br>(DO-214AA) | ITEM                       | SYM<br>BOL | SMB<br>(DO-214AA) |
| Carrier width              | A          | 3.81(0.150)Max    | Carrier depth              | K          | 2.45(0.965)Typ    |
| Carrier length             | B          | 5.41(0.213)Max    | Punch hole pitch           | P          | 8.00(0.315)Typ    |
| Sprocket hole              | d          | ø1.55(0.061)Typ   | Sprocket hole pitch        | P0         | 4.00(0.157)Typ    |
| Reel outer diameter        | D          | 330.0(13.0)Typ    | Embossment center          | P1         | 2.00(0.079)Typ    |
| Reel inner diameter        | D1         | 50.0(1.969)Min    | Overall tape thickness     | T          | 0.30(0.012)Typ    |
| Feed hole diameter         | D2         | 13.0(0.512)Typ    | Tape width                 | W          | 12.0(0.472)Typ    |
| Sprocket hole position     | J          | 1.75(0.069)Typ    | Reel width                 | W1         | 12.4(0.488)Min    |
| Punch hole position        | H          | 5.55(0.219)Typ    |                            |            |                   |