

## SS315LB

### 3.0AMPS. SCHOTTKY BARRIER RECTIFIERS

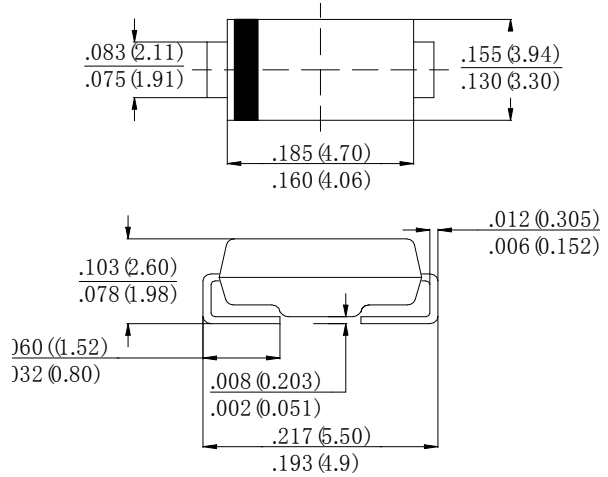
#### FEATURE

- . 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

- . 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

#### 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  | SS315LB     | units         |
|-----------------------------------------------------------------------------------------------------|-------------|-------------|---------------|
| Maximum Recurrent Peak Reverse Voltage                                                              | $V_{RRM}$   | 150         | V             |
| Maximum RMS Voltage                                                                                 | $V_{RMS}$   | 105         | V             |
| Maximum DC blocking Voltage                                                                         | $V_{DC}$    | 150         | V             |
| Maximum Average Forward Rectified Current                                                           | $I_{F(AV)}$ | 3.0         | A             |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)     | $I_{FSM}$   | 80          | A             |
| Maximum Forward Voltage at 3.0A DC                                                                  | $V_F$       | 0.85        | V             |
| Maximum DC Reverse Current @ $T_J=25^{\circ}C$<br>at rated DC blocking voltage @ $T_J=100^{\circ}C$ | $I_R$       | 0.1<br>10.0 | mA            |
| Typical Junction Capacitance(Note1)                                                                 | $C_J$       | 112         | pF            |
| Typical Thermal Resistance(Note2)                                                                   | $R_{(JA)}$  | 55          | $^{\circ}C/W$ |
|                                                                                                     | $R_{(JC)}$  | 16          |               |
| Storage Temperature                                                                                 | $T_{STG}$   | -55 to +150 | $^{\circ}C$   |
| Operating Junction Temperature                                                                      | $T_J$       | -55 to +150 | $^{\circ}C$   |

#### 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 (SS315LB)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

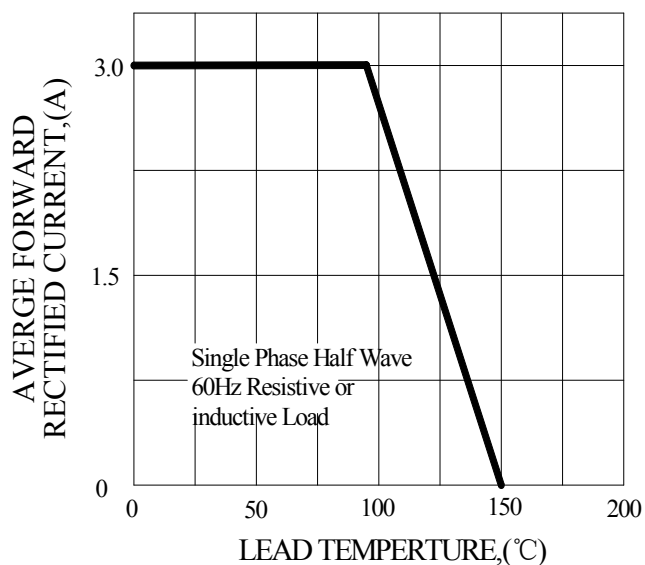


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

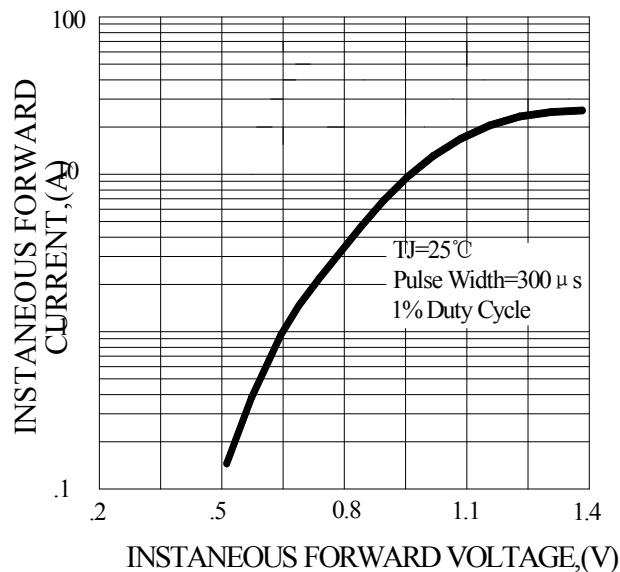


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

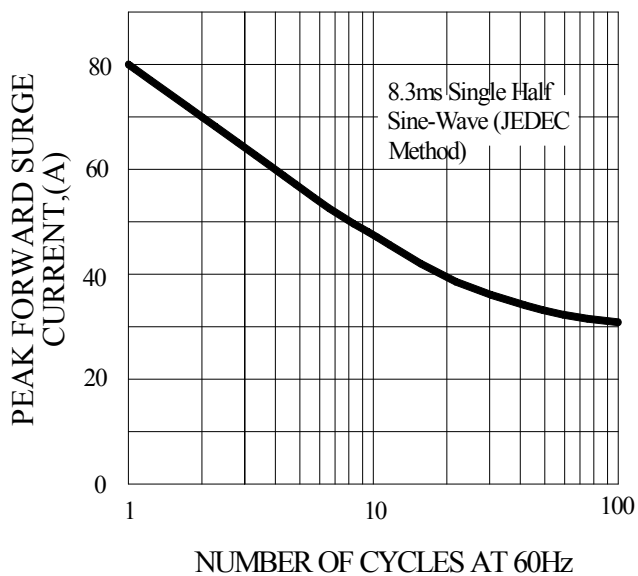
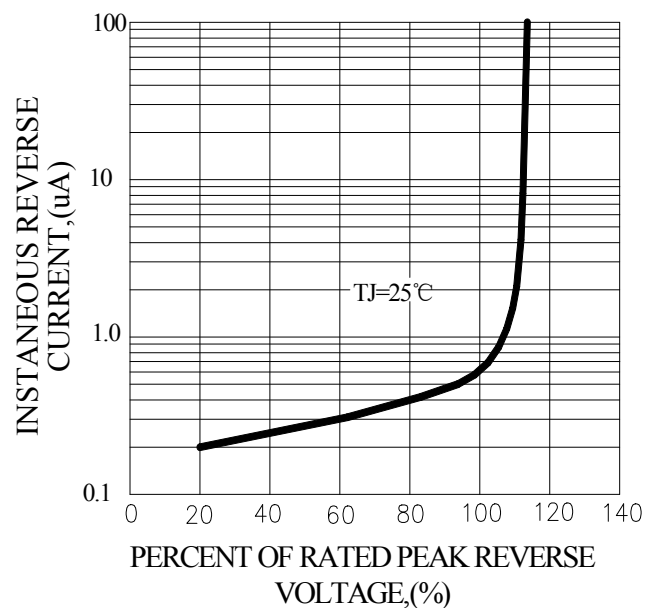
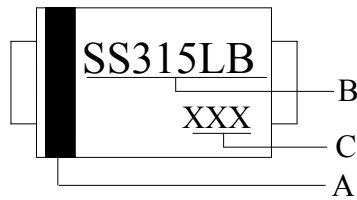


FIG.4-TYPICAL REVERSE CHARACTERISTICS



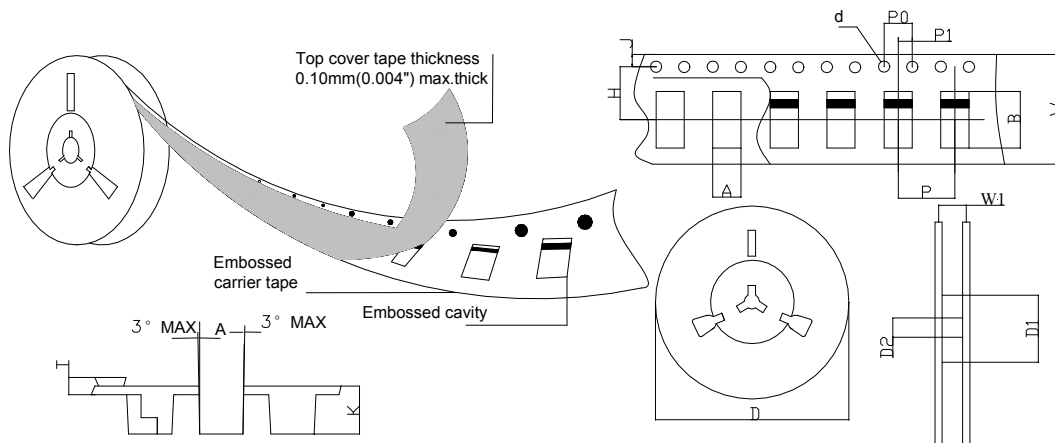
## Marking and packaging illustration

### 1、Marking



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

### 2、Packaging



| SPECIFICATIONS<br>mm(inch) |            |                              | SPECIFICATIONS<br>mm(inch) |            |                              |
|----------------------------|------------|------------------------------|----------------------------|------------|------------------------------|
| ITEM                       | SYM<br>BOL | PACKAGE<br>SMB(DO-214<br>AA) | ITEM                       | SYM<br>BOL | PACKAGE<br>SMB(DO-214A<br>A) |
| 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               |                            |            |                              |