

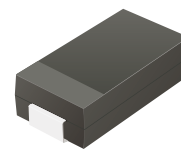
## S2AB-HF Thru. S2MB-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen Free

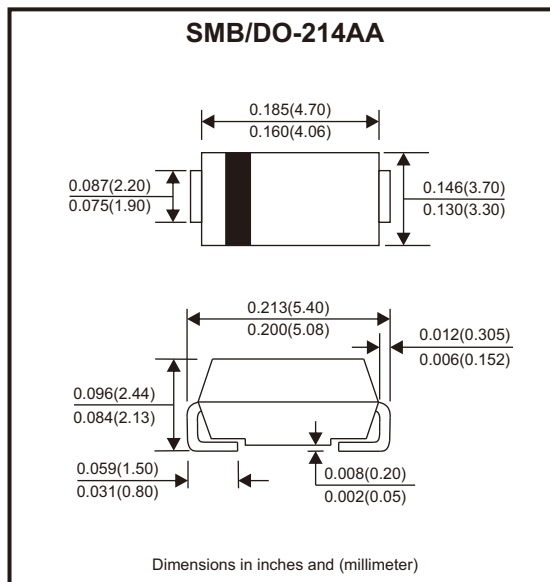


### Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- Easy to pick and place.

### Mechanical data

- Case: SMB
- Terminals: Solderable per MIL-STD-750, method 2026.



### Circuit Diagram



### 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 by 20%

| Parameter   | Symbols                            | S2AB-HF    | S2BB-HF | S2DB-HF | S2GB-HF | S2JB-HF | S2KB-HF | S2MB-HF | Units              |
|---|------------------------------------|------------|---------|---------|---------|---------|---------|---------|--------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$                          | 50         | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum RMS voltage   | $V_{RMS}$                          | 35         | 70      | 140     | 280     | 420     | 560     | 700     | V                  |
| Maximum DC blocking voltage   | $V_{DC}$                           | 50         | 100     | 200     | 400     | 600     | 800     | 1000    | V                  |
| Maximum average forward rectified current   | $I_{F(AV)}$                        | 2          |         |         |         |         |         |         | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                                  | $I_{FSM}$                          | 60         |         |         |         |         |         |         | A                  |
| Max instantaneous forward voltage at 2A   | $V_F$                              | 1.1        |         |         |         |         |         |         | V                  |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>$T_a = 25^\circ\text{C}$<br>$T_a = 125^\circ\text{C}$ | $I_R$                              | 5<br>100   |         |         |         |         |         |         | $\mu\text{A}$      |
| Typical junction capacitance (Note 1)   | $C_j$                              | 25         |         |         |         |         |         |         | pF                 |
| Typical thermal resistance (Note 2)   | $R_{\theta JA}$<br>$R_{\theta JC}$ | 60<br>20   |         |         |         |         |         |         | $^\circ\text{C/W}$ |
| Operating and storage temperature range   | $T_j, T_{stg}$                     | -55 ~ +150 |         |         |         |         |         |         | $^\circ\text{C}$   |

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C

2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## Rating and Characteristic Curves (S2AB-HF Thru. S2MB-HF)

Fig.1 - Forward Current Derating Curve

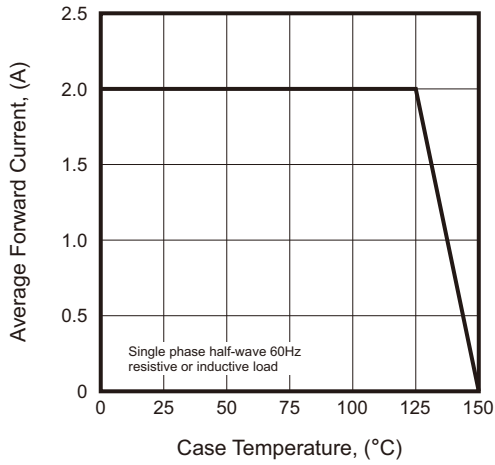


Fig.2 - Typical Instantaneous Reverse Characteristics

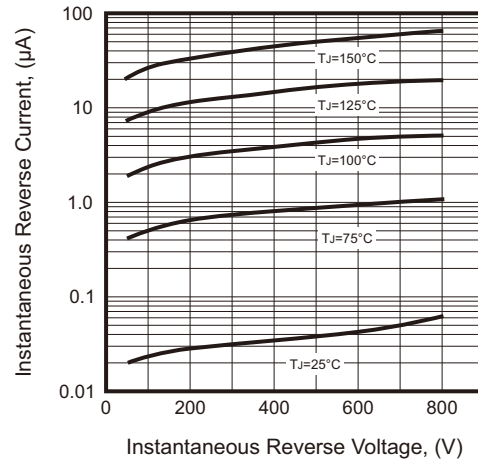


Fig.3 - Typical Forward Characteristic

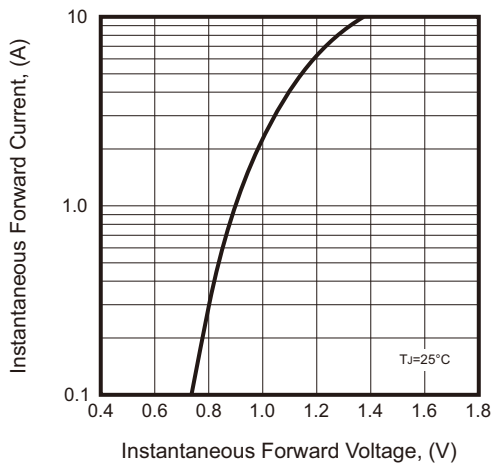


Fig.4 - Typical Junction Capacitance

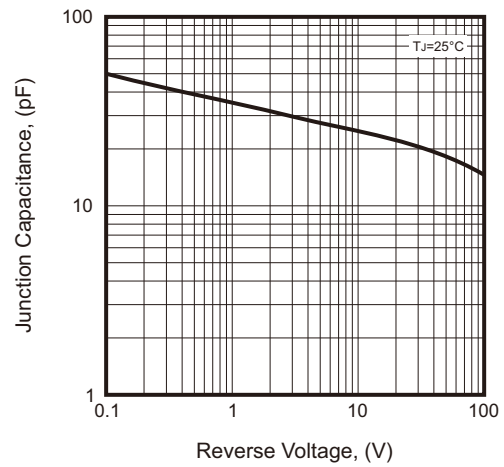
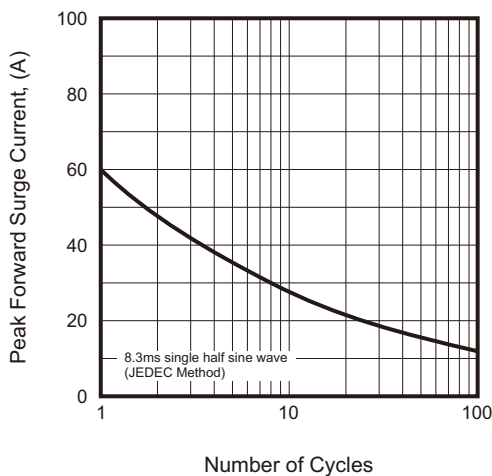
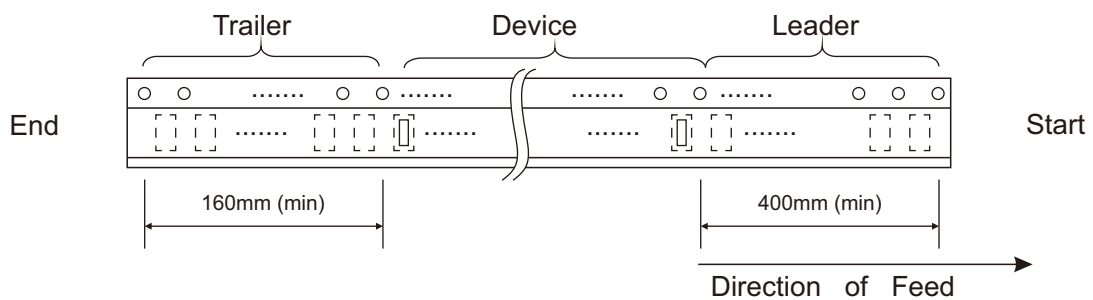
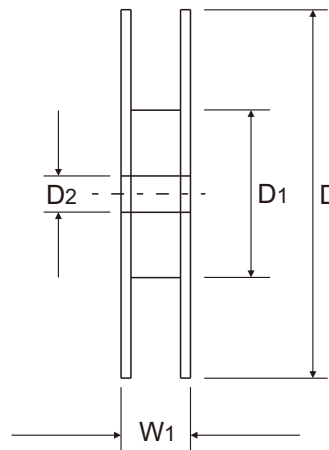
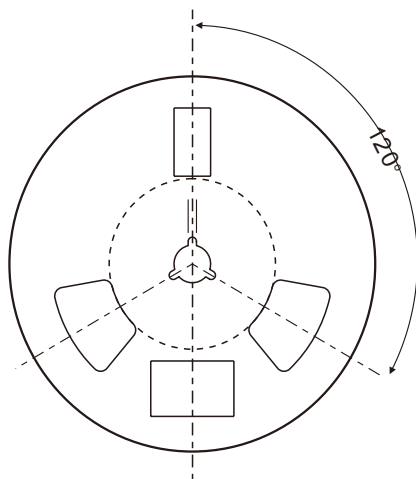
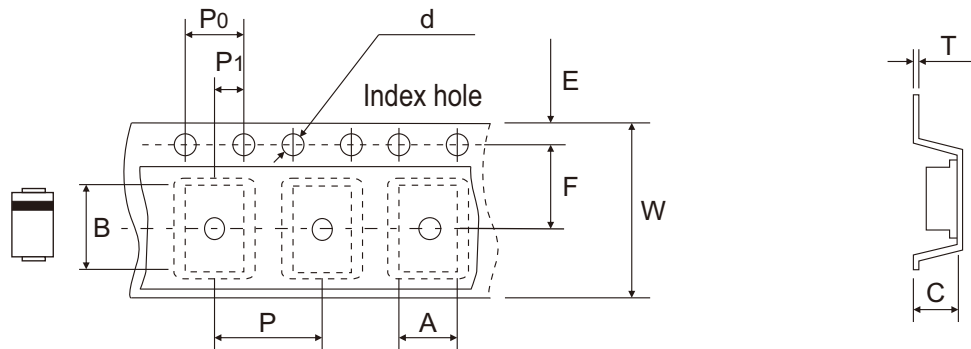


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



## Reel Taping Specification



| DO-214AA<br>(SMB) | SYMBOL | A             | B                        | C             | d             | D              | D1            | D2            |
|-------------------|--------|---------------|--------------------------|---------------|---------------|----------------|---------------|---------------|
|                   | (mm)   | 3.80 ± 0.10   | 5.50 + 0.05<br>- 0.10    | 2.45 ± 0.05   | 1.55 ± 0.05   | 330 ± 2.00     | 100 ± 1.00    | 13.00 ± 0.20  |
|                   | (inch) | 0.150 ± 0.004 | 0.217 + 0.002<br>- 0.004 | 0.096 ± 0.002 | 0.061 ± 0.002 | 12.992 ± 0.079 | 3.937 ± 0.039 | 0.512 ± 0.008 |

| DO-214AA<br>(SMB) | SYMBOL | E             | F             | P             | P0            | P1            | T             | W             | W1                       |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
|                   | (mm)   | 1.75 ± 0.10   | 5.50 ± 0.05   | 8.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 0.25 ± 0.05   | 12.00 ± 0.15  | 18.00 + 2.00<br>- 1.00   |
|                   | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.010 ± 0.002 | 0.472 ± 0.006 | 0.709 + 0.079<br>- 0.039 |

Company reserves the right to improve product design, functions and reliability without notice.

REV:A