

## Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 10 A

### FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass Passivated Chip Junction
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

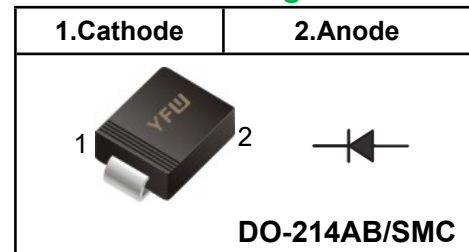
- ◆ Case: DO-214AB/SMC
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.22g / 0.0077oz

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

### Pinning



### Marking Code

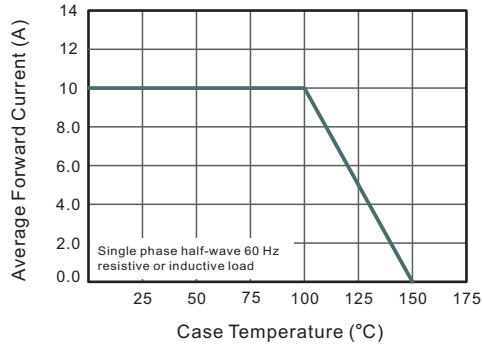
|              |             |
|--------------|-------------|
| <b>S10AC</b> | <b>S10A</b> |
| <b>S10BC</b> | <b>S10B</b> |
| <b>S10DC</b> | <b>S10D</b> |
| <b>S10GC</b> | <b>S10G</b> |
| <b>S10JC</b> | <b>S10J</b> |
| <b>S10KC</b> | <b>S10K</b> |
| <b>S10MC</b> | <b>S10M</b> |

| Parameter   | Symbols         | S10AC      | S10BC | S10DC | S10GC | S10JC | S10KC | S10MC | 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 at $T_c = 115\text{ }^\circ\text{C}$  | $I_{F(AV)}$     | 10         |       |       |       |       |       |       | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load  | $I_{FSM}$       | 200        |       |       |       |       |       |       | A                  |
| Maximum Instantaneous Forward Voltage at 10 A   | $V_F$           | 1.0        |       |       |       |       |       |       | V                  |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$ | $I_R$           | 5<br>100   |       |       |       |       |       |       | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>(1)</sup>   | $C_j$           | 100        |       |       |       |       |       |       | pF                 |
| Typical Thermal Resistance <sup>(2)</sup>   | $R_{\theta JA}$ | 10         |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | -55 ~ +150 |       |       |       |       |       |       | $^\circ\text{C}$   |

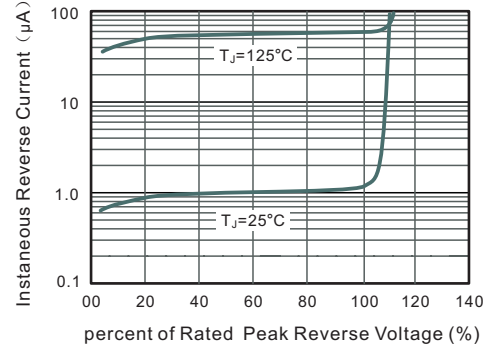
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

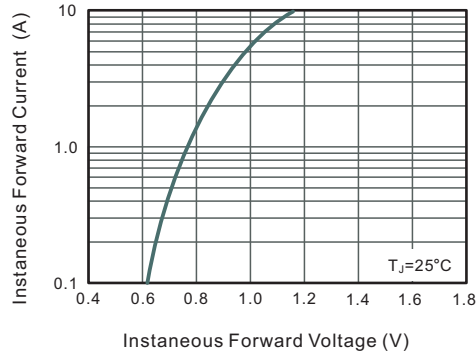
**Fig.1 Forward Current Derating Curve**



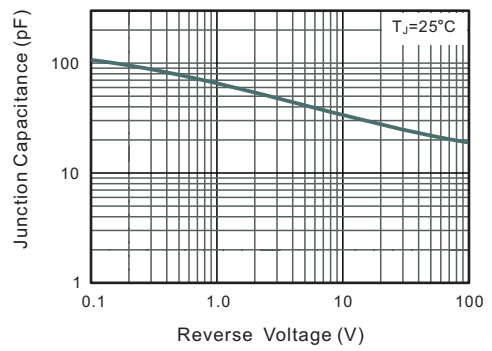
**Fig.2 Typical Reverse Characteristics**



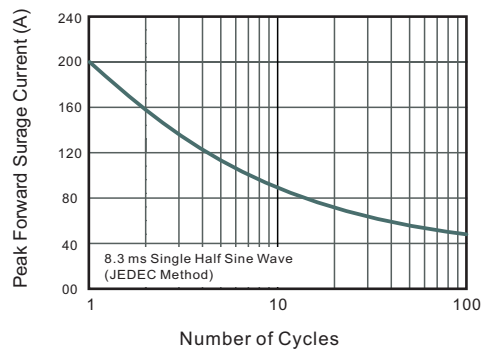
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**

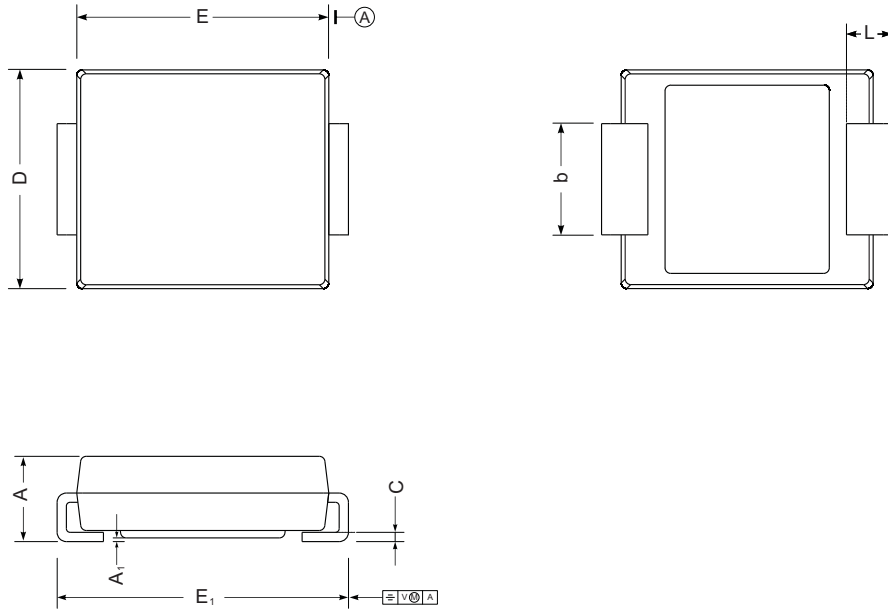


**Fig.6 Maximum Non-Repetitive Peak Forward Surge Current**



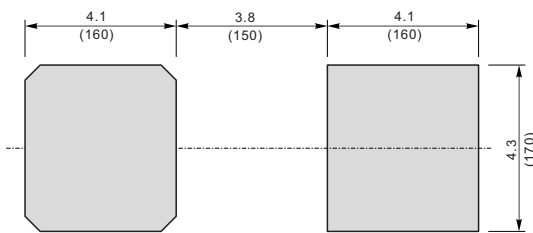
**Package Outline DO-214AB SMC**

Plastic surface mounted package; 2 leads



| UNIT |     | A    | E   | D   | E <sub>1</sub> | A <sub>1</sub> | C    | L   | b    |
|------|-----|------|-----|-----|----------------|----------------|------|-----|------|
| mm   | max | 2.62 | 7.0 | 6.2 | 8.0            | 0.21           | 0.31 | 1.6 | 3.25 |
|      | min | 2.00 | 6.5 | 5.6 | 7.6            | 0.05           | 0.15 | 0.9 | 2.75 |
| mil  | max | 103  | 276 | 244 | 315            | 8.3            | 12   | 63  | 128  |
|      | min | 79   | 256 | 220 | 299            | 2.0            | 5.9  | 35  | 108  |

**The recommended mounting pad size**



Unit :  $\frac{\text{mm}}{\text{mil}}$

**Summary of Packing Options**

| Package      | Packing Description | Packing Quantity | Industry Standard |
|--------------|---------------------|------------------|-------------------|
| DO-214AB SMC | Tape/Reel, 13" reel | 3000             | EIA-481-1         |

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)