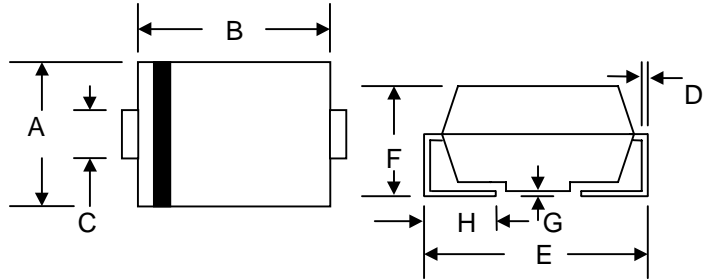


#### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 100A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



#### Mechanical Data

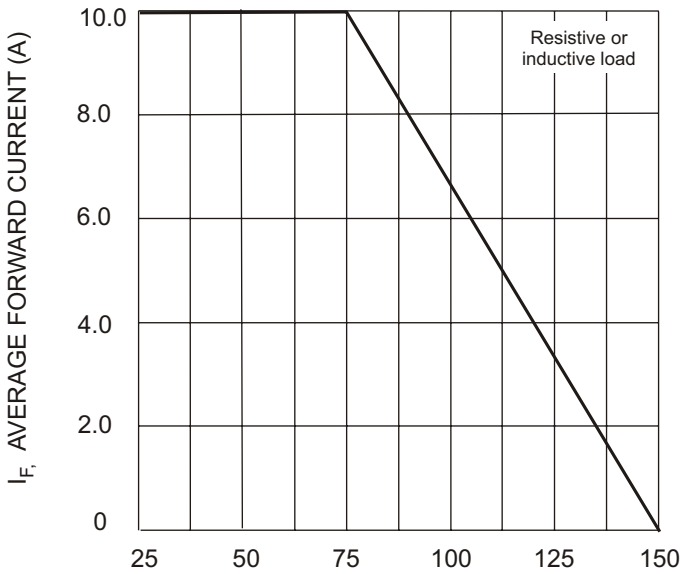
- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

| HSMC/DO-214AB        |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 5.95  | 6.10  |
| B                    | 6.08  | 6.18  |
| C                    | 4.70  | 5.30  |
| D                    | 0.152 | 0.305 |
| E                    | 7.85  | 8.18  |
| F                    | 4.27  | 4.55  |
| G                    | 0.051 | 0.51  |
| H                    | 1.20  | 1.42  |
| All Dimensions in mm |       |       |

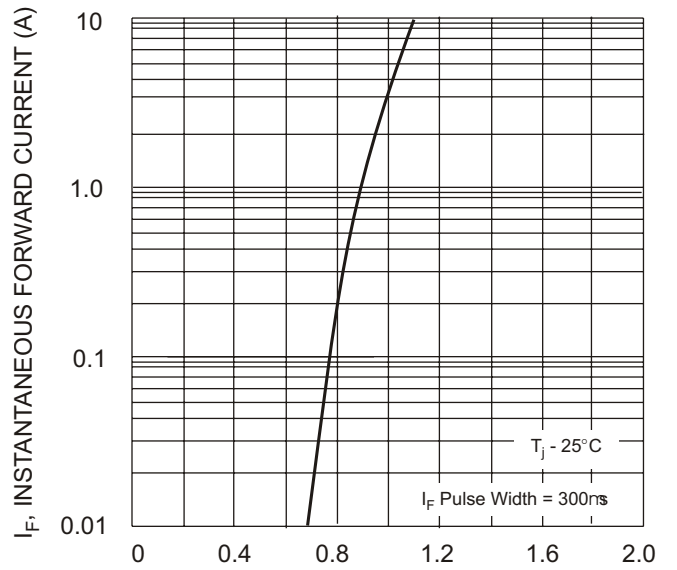
#### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic   | Symbol          | S10A        | S10B | S10D | S10G | S10J | S10K | S10M | Unit               |
|--|-----------------|-------------|------|------|------|------|------|------|--------------------|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$       |             |      |      |      |      |      |      | V                  |
| Working Peak Reverse Voltage   | $V_{RWM}$       | 50          | 100  | 200  | 400  | 600  | 800  | 1000 |                    |
| DC Blocking Voltage  | $V_R$           |             |      |      |      |      |      |      |                    |
| RMS Reverse Voltage  | $V_{R(RMS)}$    | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V                  |
| Average Rectified Output Current @ $T_L = 75^\circ\text{C}$  | $I_O$           | 10.0        |      |      |      |      |      |      | A                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 200         |      |      |      |      |      |      | A                  |
| Forward Voltage @ $I_F = 10.0\text{A}$   | $V_M$           | 1.15        |      |      |      |      |      |      | V                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$        | $I_{RM}$        | 10<br>250   |      |      |      |      |      |      | $\mu\text{A}$      |
| Typical Junction Capacitance (Note 1)  | $C_j$           | 40          |      |      |      |      |      |      | pF                 |
| Typical Thermal Resistance (Note 2)  | $R_{\theta JL}$ | 10          |      |      |      |      |      |      | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range  | $T_j, T_{STG}$  | -65 to +150 |      |      |      |      |      |      | $^\circ\text{C}$   |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
2. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.



$T_T$ , TERMINAL TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics

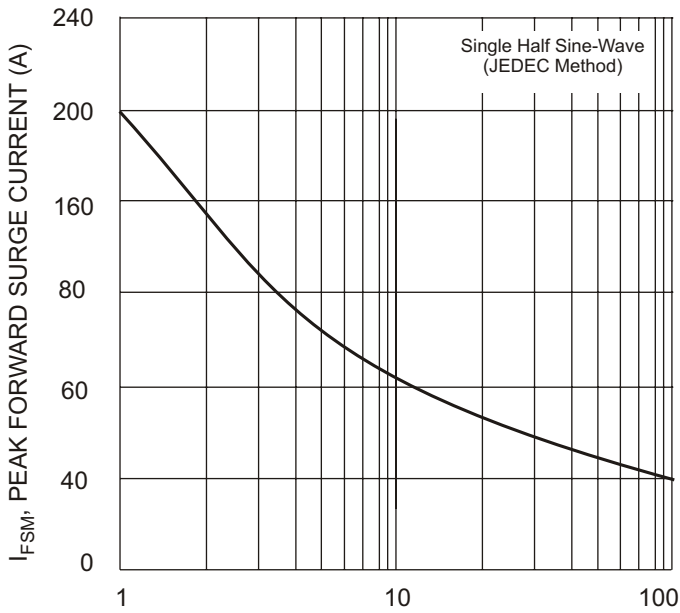


Fig. 3 Forward Surge Current Derating Curve

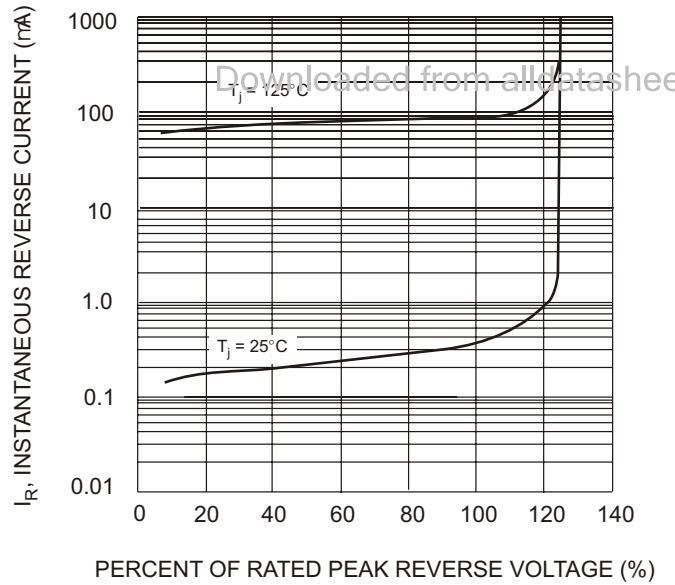


Fig. 4 Typical Reverse Characteristics