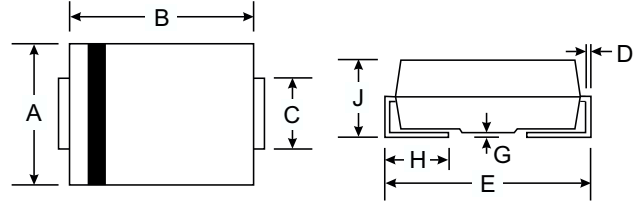


### 2.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0



#### Mechanical Data

- Case: SMA/DO-214AC SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: SMA Weight: 0.064 grams (approx.)  
SMB Weight: 0.093 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

| Dim                  | SMA  |      | SMB  |      |
|----------------------|------|------|------|------|
|                      | Min  | Max  | Min  | Max  |
| A                    | 2.29 | 2.92 | 3.30 | 3.94 |
| B                    | 4.00 | 4.60 | 4.06 | 4.57 |
| C                    | 1.27 | 1.63 | 1.96 | 2.21 |
| D                    | 0.15 | 0.31 | 0.15 | 0.31 |
| E                    | 4.80 | 5.59 | 5.00 | 5.59 |
| G                    | 0.10 | 0.20 | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 | 0.76 | 1.52 |
| J                    | 2.01 | 2.62 | 2.00 | 2.62 |
| All Dimensions in mm |      |      |      |      |

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

| Characteristic  | Symbol                             | SS22        | SS23 | SS24 | SS25 | SS26 | SS28 | SS210 | SS2150 | SS2200 | Unit             |                    |
|---|------------------------------------|-------------|------|------|------|------|------|-------|--------|--------|------------------|--------------------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$                          |             |      |      |      |      |      |       |        |        | V                |                    |
| Working Peak Reverse Voltage  | $V_{RWM}$                          | 20          | 30   | 40   | 50   | 60   | 80   | 100   | 150    | 200    |                  |                    |
| DC Blocking Voltage   | $V_R$                              |             |      |      |      |      |      |       |        |        |                  |                    |
| RMS Reverse Voltage   | $V_{R(RMS)}$                       | 14          | 21   | 28   | 35   | 42   | 56   | 70    | 105    | 140    | V                |                    |
| Average Rectified Output Current @ $T_L = 75^\circ\text{C}$   | $I_O$                              | 2.0         |      |      |      |      |      |       |        |        | A                |                    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | $I_{FSM}$                          | 50          |      |      |      |      |      |       |        |        | A                |                    |
| Forward Voltage @ $I_F = 2.0\text{A}$   | $V_{FM}$                           | 0.55        |      |      | 0.70 |      | 0.85 |       | 0.90   |        | V                |                    |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$           | $I_{RM}$                           | 0.5         |      |      |      |      | 20   |       |        |        |                  | mA                 |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JL}$<br>$R_{\theta JA}$ | 28          |      |      |      |      | 88   |       |        |        |                  | $^\circ\text{C/W}$ |
| Operating Temperature Range   | $T_j$                              | -65 to +125 |      |      |      |      |      |       |        |        | $^\circ\text{C}$ |                    |
| Storage Temperature Range   | $T_{STG}$                          | -65 to +150 |      |      |      |      |      |       |        |        | $^\circ\text{C}$ |                    |

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

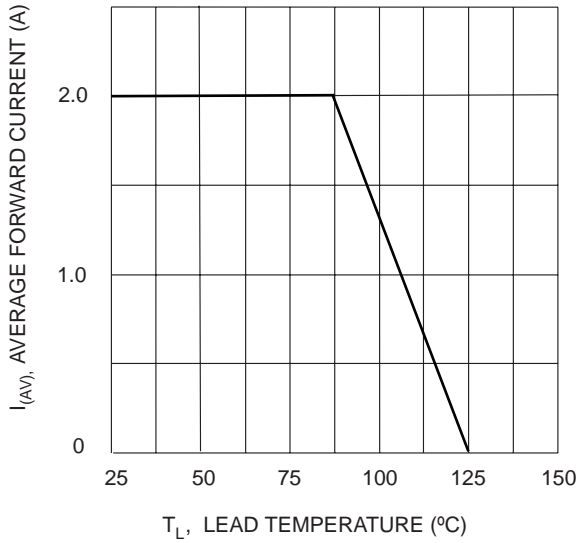


Fig. 1 Forward Current Derating Curve

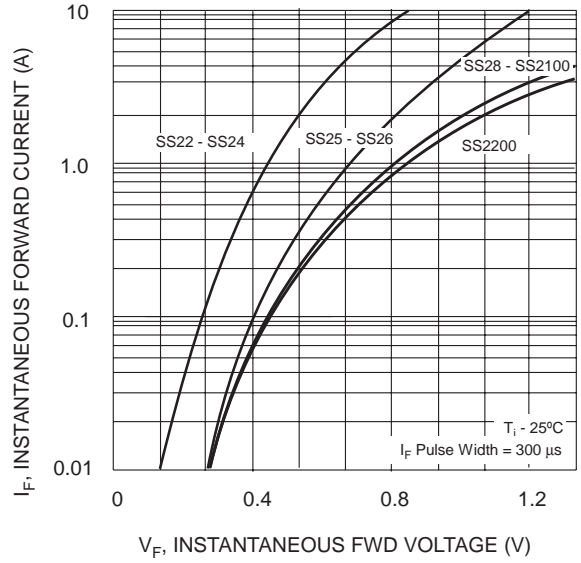


Fig. 2 Typ. Forward Characteristics

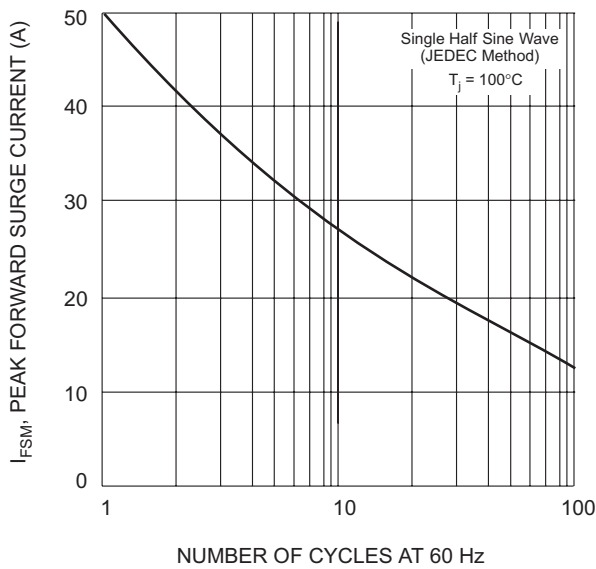


Fig. 3 Max Non Repetitive Peak Fwd Surge Current

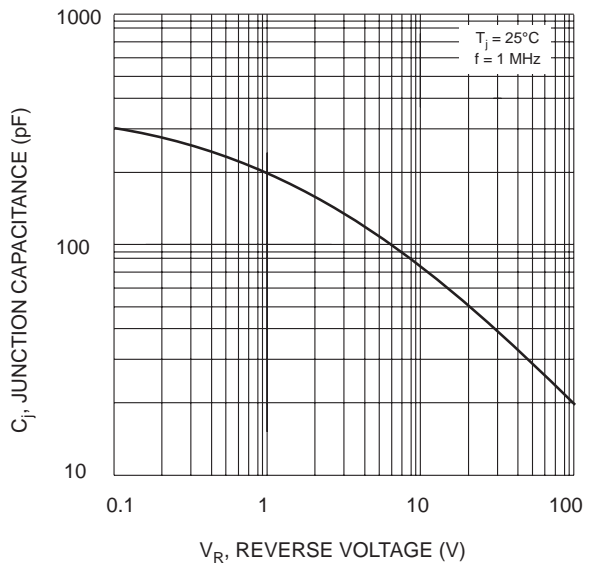


Fig. 4 Typical Junction Capacitance

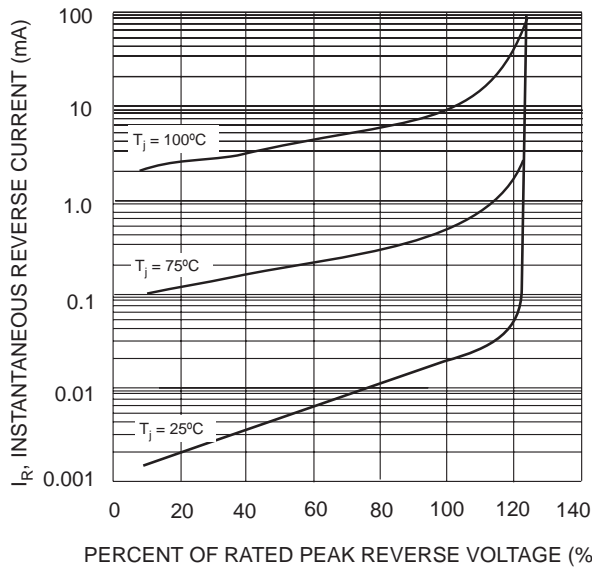


Fig. 5 Typical Reverse Characteristics