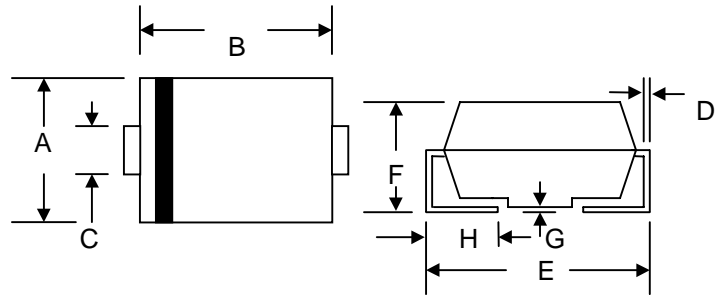


1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 30A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

| SMA/DO-214AC | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 2.50 | 2.90 |
| B | 4.00 | 4.60 |
| C | 1.40 | 1.60 |
| D | 0.152 | 0.305 |
| E | 4.80 | 5.28 |
| F | 2.00 | 2.44 |
| G | 0.051 | 0.203 |
| H | 0.76 | 1.52 |
| All Dimensions in mm | | |

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

| Characteristic | Symbol | SS12 | SS13 | SS14 | SS15 | SS16 | SS18 | SS19 | S100 | Unit | |
|--|-----------------|-------------|------|------|------|------|------|------|------|------------------|---------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Working Peak Reverse Voltage | V_{RWM} | | | | | | | | | | |
| DC Blocking Voltage | V_R | | | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | 56 | 64 | 71 | V | |
| Average Rectified Output Current @ $T_L = 75^\circ\text{C}$ | I_O | 1.0 | | | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30 | | | | | | | | A | |
| Forward Voltage @ $I_F = 1.0\text{A}$ | V_{FM} | 0.55 | | | 0.70 | | 0.85 | | | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | | | | | 0.5 | | | | | μA |
| | | | | | | 20 | | | | | |
| Typical Thermal Resistance Junction to Ambient (Note 1) | $R_{\theta JA}$ | 88 | | | | | | | | K/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 5.0mm² copper pad areas

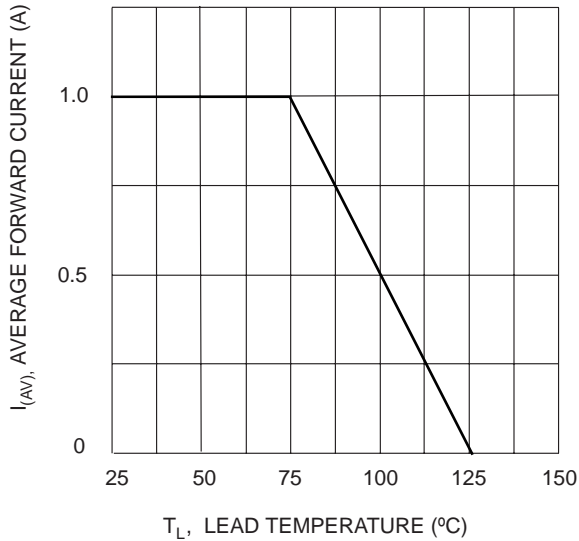


Fig. 1 Forward Current Derating Curve

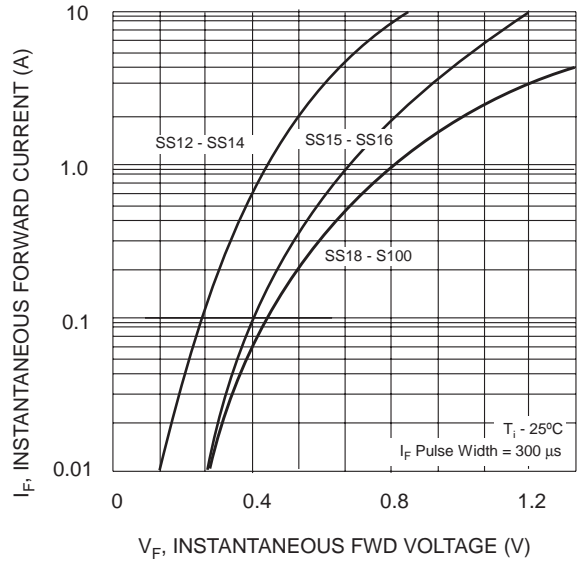


Fig. 2 Typ. Forward Characteristics

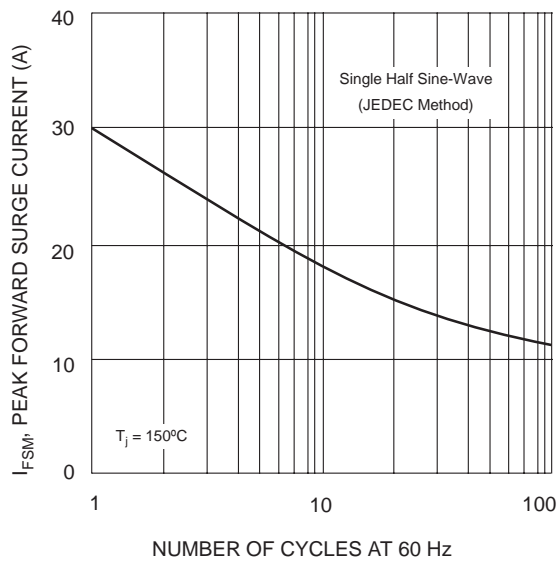


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

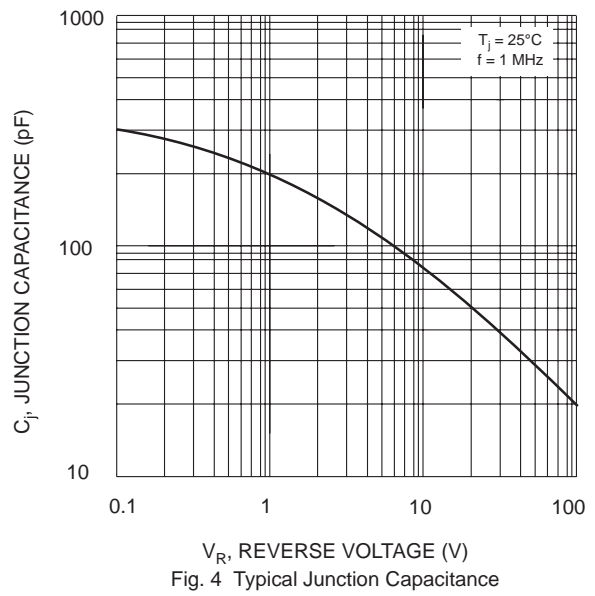


Fig. 4 Typical Junction Capacitance

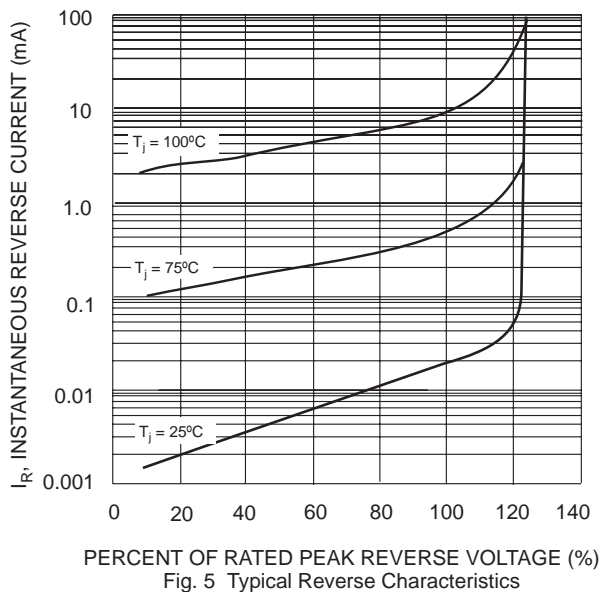


Fig. 5 Typical Reverse Characteristics