

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage -20 to 200 Volts Forward Current -1.0 Amperes

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds at terminals
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology



MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

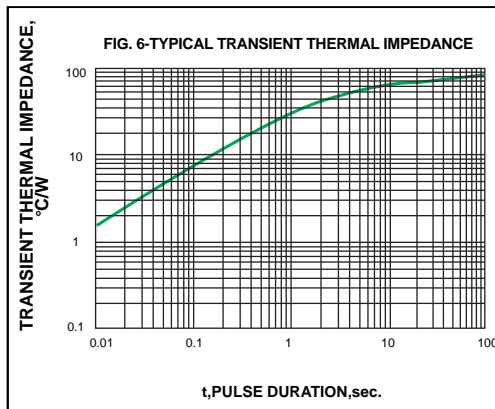
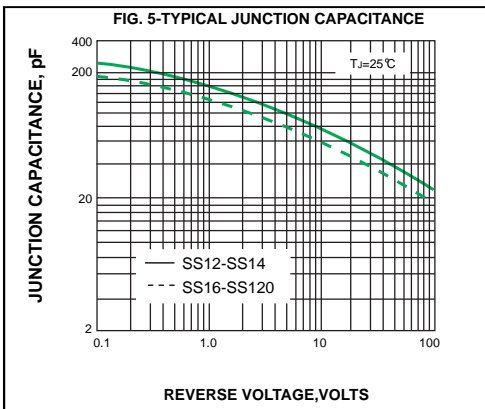
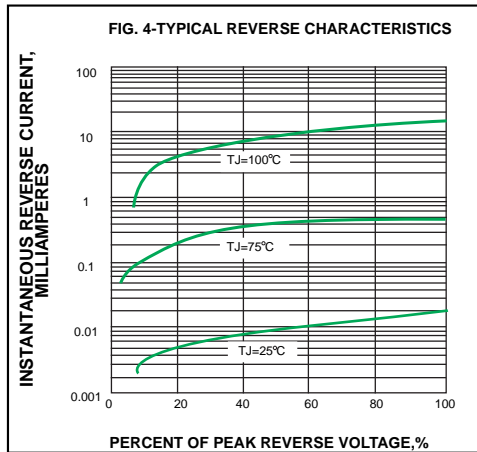
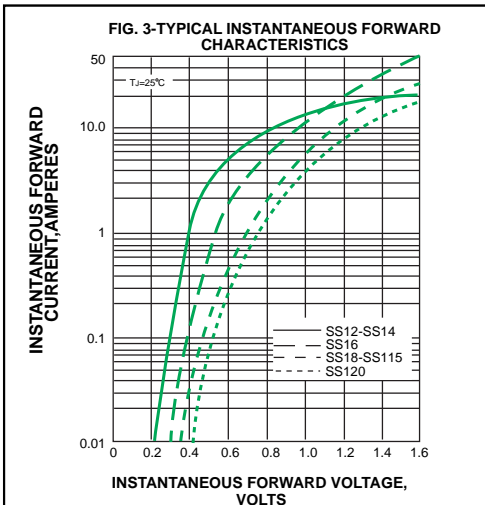
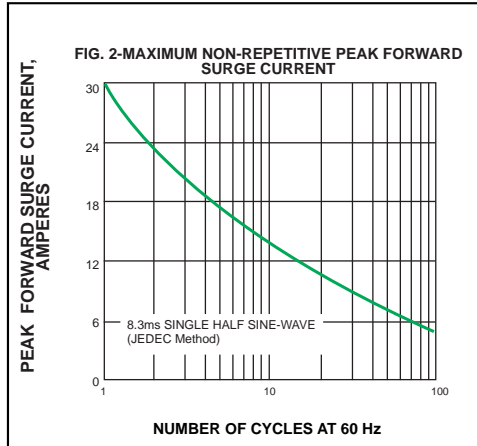
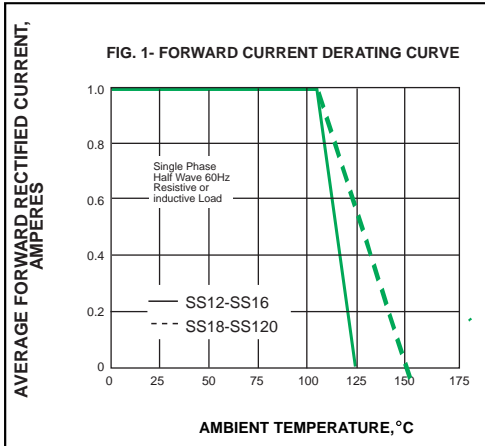
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

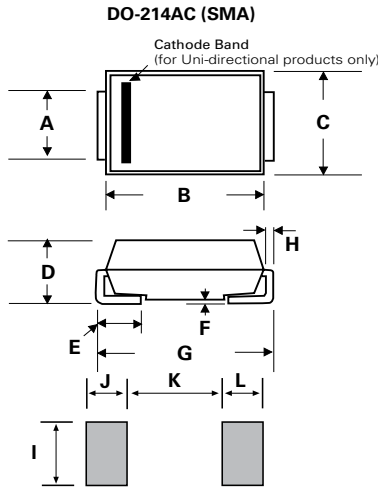
| Number | SYMBOLS | SS12 | SS14 | SS16 | SS18 | SS110 | SS115 | SS120 | UNITS |
|---|-----------------|-------------|------|------|-------------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | 150 | 200 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | 105 | 140 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | 150 | 200 | VOLTS |
| Maximum average forward rectified current at T_L (see fig.1) | $I_{(AV)}$ | 1.0 | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.45 | 0.50 | 0.70 | 0.80 | | 0.95 | | Volts |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ | I_R | 45 | | | | | 1 | | uA |
| | | 1000 | | | | | | | |
| Typical junction capacitance (NOTE 1) | C_J | 110 | | 90 | | | | pF | |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 88.0 | | | | | | | °C/W |
| Operating junction temperature range | T_J | -50 to +125 | | | -50 to +150 | | | | °C |
| Storage temperature range | T_{STG} | -50 to +125 | | | -50 to +150 | | | | °C |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES



Dimensions

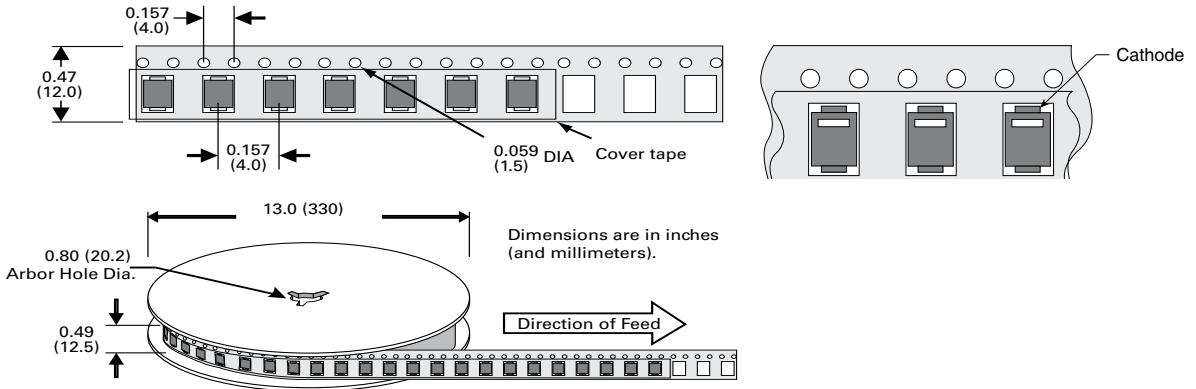


| Dimensions | Inches | | Millimeters | |
|------------|--------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.047 | 0.067 | 1.200 | 1.700 |
| B | 0.157 | 0.185 | 3.990 | 4.700 |
| C | 0.095 | 0.114 | 2.400 | 2.900 |
| D | 0.075 | 0.096 | 1.900 | 2.440 |
| E | 0.030 | 0.060 | 0.760 | 1.520 |
| F | - | 0.008 | - | 0.203 |
| G | 0.185 | 0.222 | 4.700 | 5.660 |
| H | 0.006 | 0.012 | 0.152 | 0.305 |
| I | 0.066 | - | 1.680 | - |
| J | 0.068 | - | 1.720 | - |
| K | - | 0.090 | - | 2.300 |
| L | 0.068 | - | 1.720 | - |

Ordering Information

| Part number | Component Package | Quantity | Packaging Option | Packaging Specification |
|-------------|-------------------|----------|----------------------------------|-------------------------|
| SS1XX | DO-214AC | 5000 | Tape & Reel - 12mm tape/13" reel | EIA STD RS-481 |

Tape and Reel Specification



Note: Devices are packde in accordance with EIA standard RS-481-Aand specification given above.