

SuperSchottky – 5A, 20~200V Schottky barrier rectifiers



1. Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop

2. Mechanical Data

- Case: DO-214AA/SMB molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0035 ounce, 0.098 grams

3. Marking and Circuit

| Marking | Circuit |
|---|---|
|  |  |

4. Specification

Absolute Maximum Rating & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load.

| Parameters | Symbol | SS52 | SS54 | SS56 | SS58 | SS510 | SS515 | SS520 | Unit |
|--|---------------------|-------------|------|------|------|-------|-------|-------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | 105 | 140 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | 150 | 200 | V |
| Average Rectified Output Current at $T_L=100\text{ C}$ | $I_{F(AV)}$ | 5.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 120 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 5.0 A | V_F | 0.55 | 0.70 | 0.85 | 0.95 | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | $T_J=25\text{ °C}$ | 0.5 | | | 0.05 | | | mA | |
| | $T_J=100\text{ °C}$ | 50 | | | 10 | | | | |
| Typical thermal resistance | $R_{\theta JA}$ | 85.0 | | | | | | | °C/W |
| Operating junction temperature range | T_J | -55 TO +150 | | | | | | | °C |
| Storage temperature range | T_{STG} | -55 TO +150 | | | | | | | °C |

5. Typical Characteristic

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

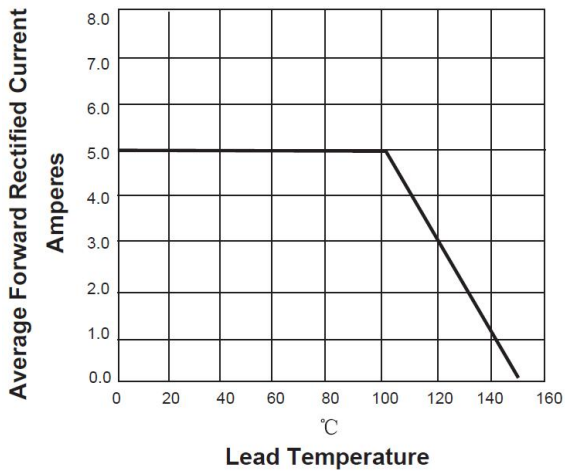


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

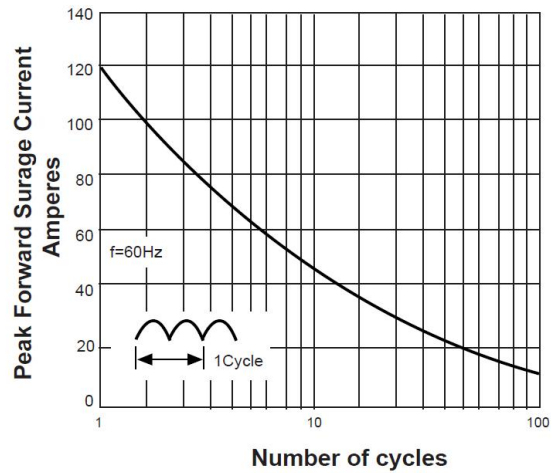


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

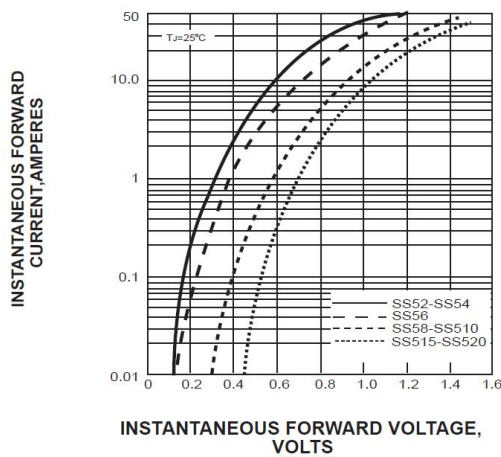
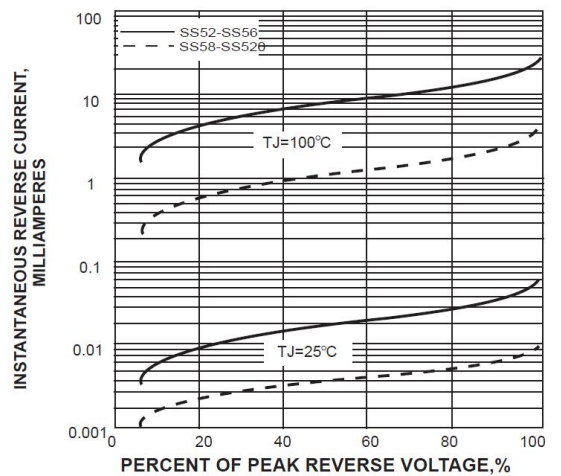
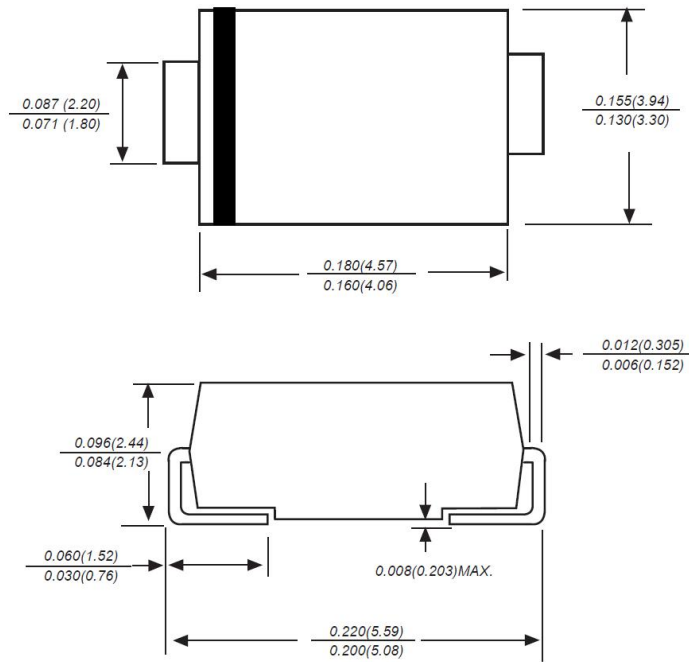


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

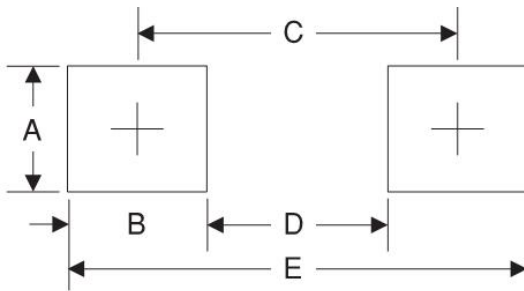


6. Dimension (DO-214AA/SMB)



Dimensions in inches and (millimeters)

Suggested Pad Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A | 2.30 | 0.091 |
| B | 2.00 | 0.078 |
| C | 4.10 | 0.161 |
| D | 2.10 | 0.083 |
| E | 6.10 | 0.240 |

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