

**3.0AMPS Surface Mount Schottky Barrier Rectifiers
SMC/DO-214AB**

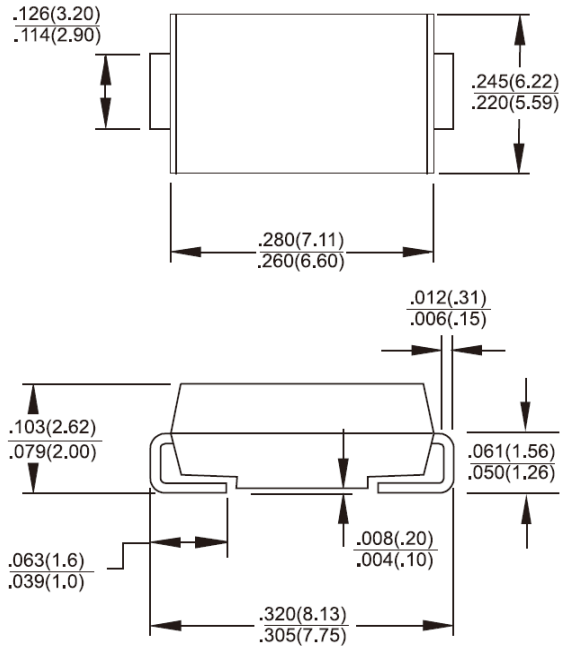


RoHS COMPLIANCE



Features

- ✧ For surface mounted application
- ✧ Easy pick and place
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low VF
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C/10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

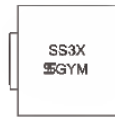


Mechanical Data

- ✧ Case: JEDEC DO-214AB Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA Std RS-481
- ✧ Weight: 0.21 gram

Dimensions in inches and (millimeters)

Marking Diagram



- SS3X = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Maximum Ratings and Electrical Characteristics

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

| Type Number | Symbol | SS 32 | SS 33 | SS 34 | SS 35 | SS 36 | SS 39 | SS 310 | SS 315 | SS 320 | Unit | |
|--|------------------------------------|-------------------------|-------|--------------------------|-------|--------------------------|-------|--------------|--------|--------------|------|------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | 200 | V | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 | 105 | 140 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | 200 | V | |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 3 | | | | | | | | | A | |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 100 | | | | 70 | | | | | A | |
| Maximum Instantaneous Forward Voltage (Note 1) @ 3 A | V_F | $T_A=25^\circ C$ 0.5 | | $T_A=100^\circ C$ 0.4 | | 0.75 0.65 | | 0.85 0.70 | | 0.95 0.80 | V | |
| Maximum Reverse Current @ Rated VR | I_R | $T_A=25^\circ C$ 0.5 | | | | $T_A=100^\circ C$ 0.1 | | | | | mA | |
| | | $T_A=125^\circ C$ 10 | | | 5 | | - | | | | | |
| | | - | | | | 0.5 | | | | | | |
| Typical Thermal Resistance | $R_{\theta JL}$ $R_{\theta JA}$ | 17 | | | | | 55 | | | | | °C/W |
| Operating Temperature Range | T_J | - 55 to + 125 | | | | - 55 to + 150 | | | | | °C | |
| Storage Temperature Range | T_{STG} | - 55 to + 150 | | | | | | | | | °C | |

Note 1: Pluse Test with PW=300 usec, 1% Duty Cycle

RATINGS AND CHARACTERISTIC CURVES (SS32 THRU SS320)

FIG. 1 FORWARD CURRENT DERATING CURVE

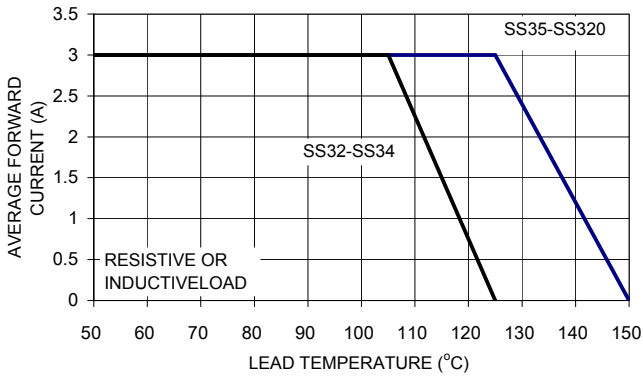


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

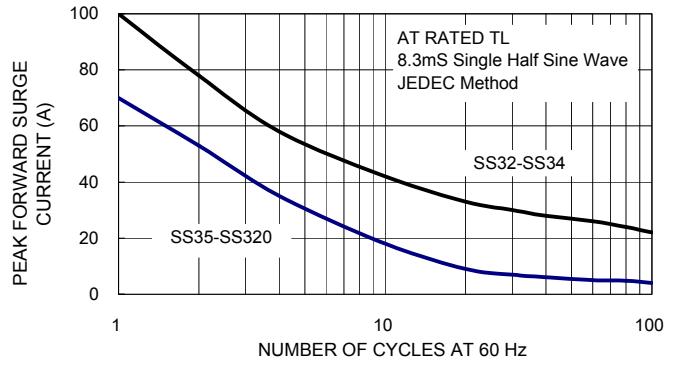


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

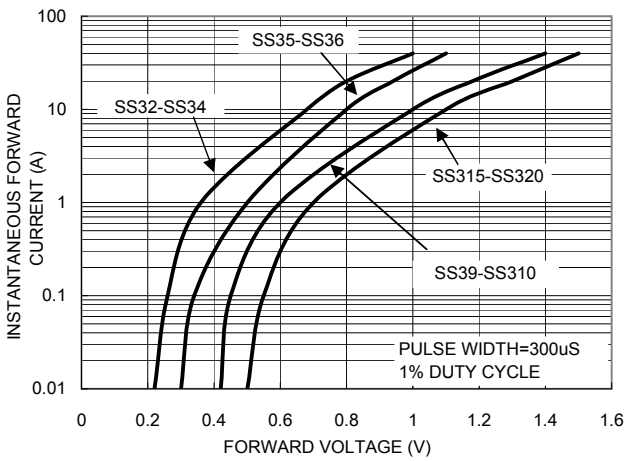


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

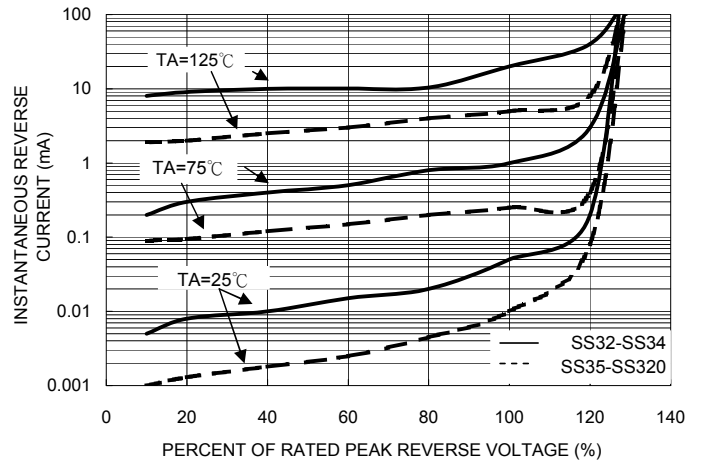


FIG. 5 TYPICAL JUNCTION CAPACITANCE

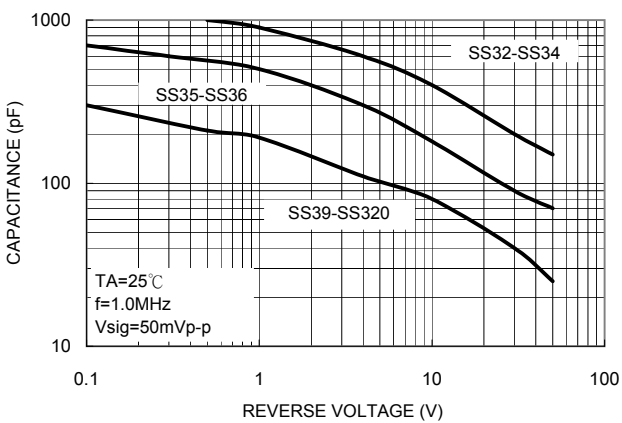
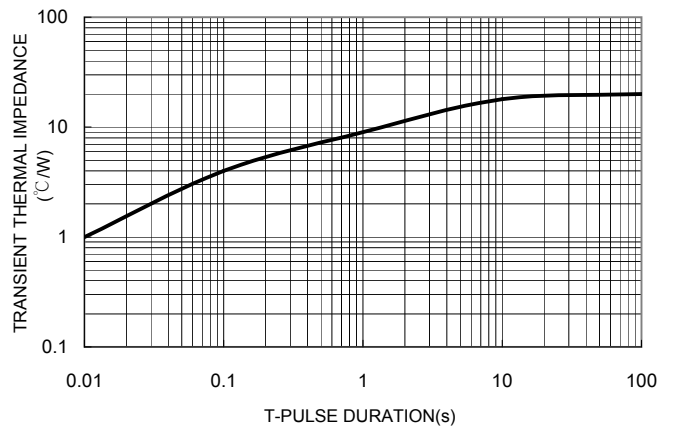


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



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