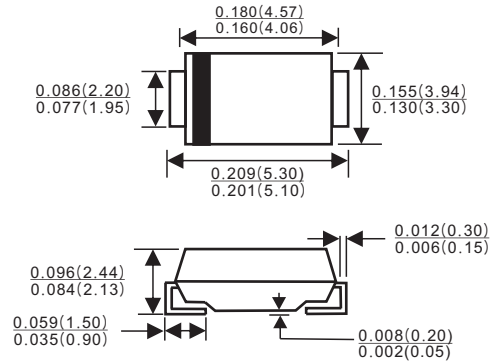




SMB/DO-214AA

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



Mechanical Data

- ✧ Case: JEDEC SMB/DO-214AA Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Weight: 0.064 gram

Dimensions in inches and(millimeters)

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 | Units |
|--|------------------------------------|-------------|-------|-------|-------|-------------|-------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 | 105 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum Average Forward Rectified Current at T_L (See Fig. 1) | $I_{(AV)}$ | 3.0 | | | | | | | | 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) IF= 3.0A @ 25°C @ 100°C | V_F | 0.5 | | 0.75 | | 0.85 | | 0.95 | | V |
| | | 0.4 | | 0.65 | | 0.70 | | 0.80 | | |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | I_R | 0.5 | | | | 0.1 | | | | mA |
| | | 10 | | | | 5 | | | | mA |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ $R_{\theta JA}$ | 28 | | | | 88 | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +125 | | | | -55 to +150 | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | °C |

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle



LGE

SS32 - SS315

3.0 AMPS. Surface Mount Schottky Barrier Rectifiers



RATINGS AND CHARACTERISTIC CURVES (SS32B THRU SS315B)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

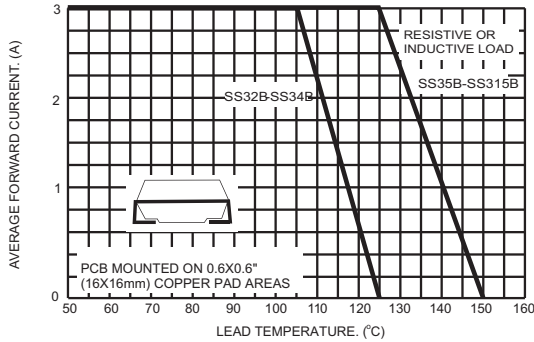


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

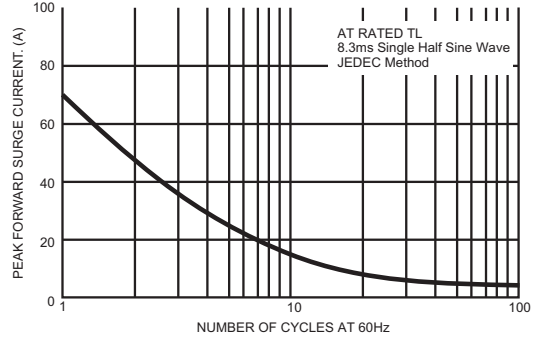


FIG.3- TYPICAL FORWARD CHARACTERISTICS

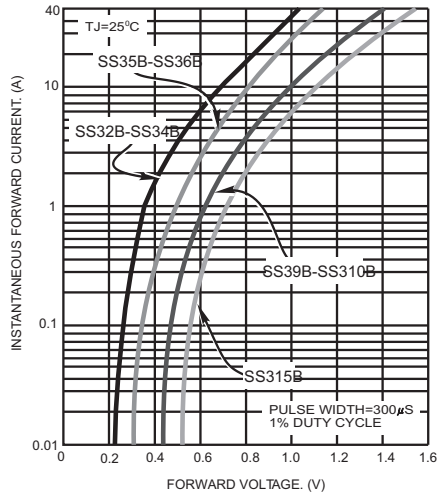


FIG.4- TYPICAL REVERSE CHARACTERISTICS

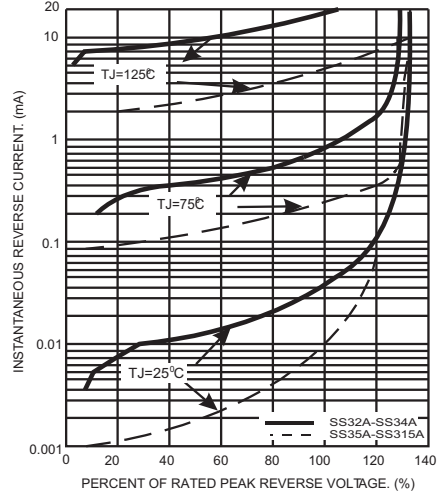


FIG.5- TYPICAL JUNCTION CAPACITANCE

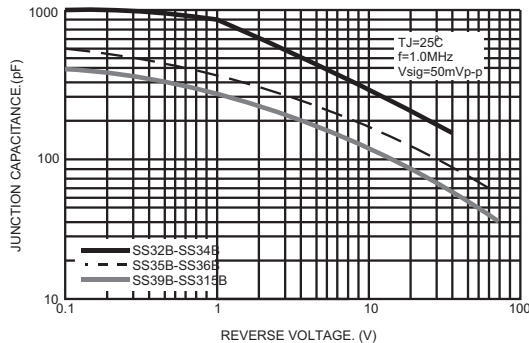
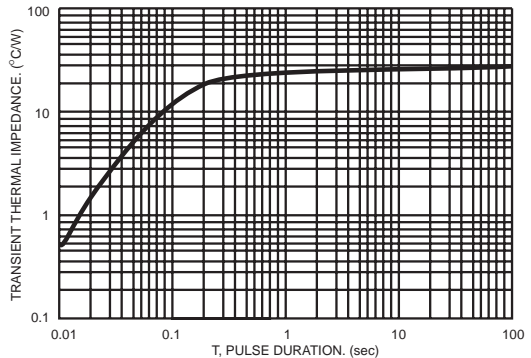


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMB | 3000/REEL | 48000 | 36X35.8X36.5 | 12.00 | 11.00 |