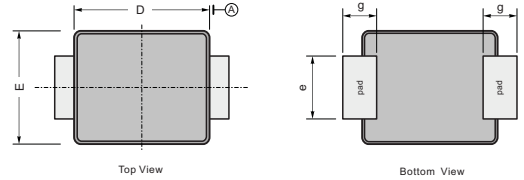
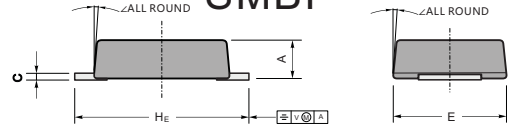




SMBF



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 SMA/DO-214AC Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band

| UNIT | | A | C | D | E | He | e | g | ∠ |
|------|-----|-----|------|-----|-----|-----|-----|-----|----|
| mm | max | 1.3 | 0.26 | 4.6 | 3.7 | 5.5 | 2.2 | 1.0 | 9° |
| | min | 1.1 | 0.18 | 4.2 | 3.5 | 5.1 | 1.9 | | |
| mil | max | 51 | 10 | 173 | 146 | 216 | 86 | 40 | |
| | min | 43 | 7 | 165 | 138 | 200 | 75 | | |

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%

| Parameter | SYMBOL | SS 32BF | SS 33BF | SS 34BF | SS 35BF | SS 36BF | SS 38BF | SS 39BF | SS 310BF | SS 315BF | SS 320BF | UNITS | |
|---|-----------------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|------------------|---------|
| Marking code | | SS32 | SS33 | SS34 | SS35 | SS36 | SS38 | SS39 | SS310 | SS315 | SS320 | | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V | |
| Maximum RMS voltage | V_{RWS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V | |
| Maximum average forward rectified current (see fig1) | $I_{F(AV)}$ | 3 | | | | | | | | | | A | |
| Peak forward surge current 8.3ms half-sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 100 | | | | | 80 | | | | | A | |
| I^2t Rating for Fusing($t < 8.3ms$) | I^2t | 41.5 | | | | | 20.335 | | | | | A ² s | |
| Maximum Forward Voltage @ $I_{F(AV)}$ (Pulse test:300 μ s pulse width,1% duty cycle) | V_F | 0.55 | | | 0.70 | | 0.85 | | | | | V | |
| Maximum DC Reverse current @Rated DC Blocking Voltage (Pulse test:Pulse width 40ms) | T=25°C | I_R | 500 | | | | | 100 | | | | | μ A |
| | T=100°C | I_R | 5 | | | | | - | | | | | mA |
| | T=125°C | I_R | 10 | | | | | 5 | | | | | mA |
| Typical Thermal Resistance (Device mounted on PCB with 10mm×20mm×0.1mm copper pad area) | $R_{\theta JA}$ | 65 | | | | | | | | | | °C/W | |
| | $R_{\theta JC}$ | 16 | | | | | | | | | | | |
| | $R_{\theta JL}$ | 15 | | | | | | | | | | | |
| Junction temperature range | T_J | -55~150 | | | | | -55~175 | | | | | °C | |
| Storage temperature range | T_{STG} | -55~150 | | | | | -55~175 | | | | | °C | |



RATINGS AND CHARACTERISTIC CURVES (SS32B THRU SS320B)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

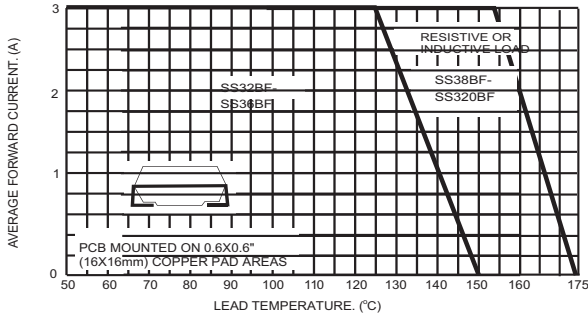


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

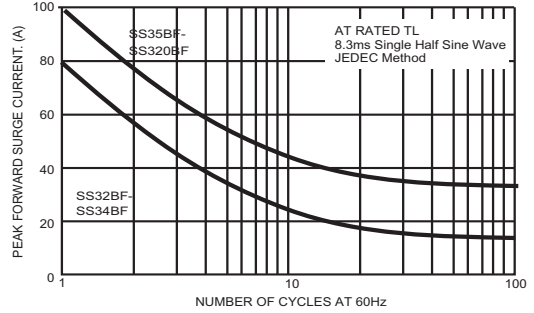


FIG.3- TYPICAL FORWARD CHARACTERISTICS

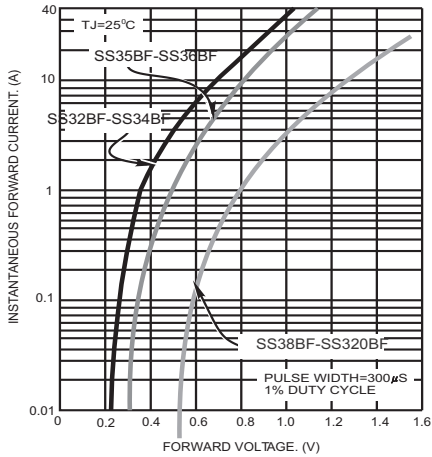


FIG.4- TYPICAL REVERSE CHARACTERISTICS

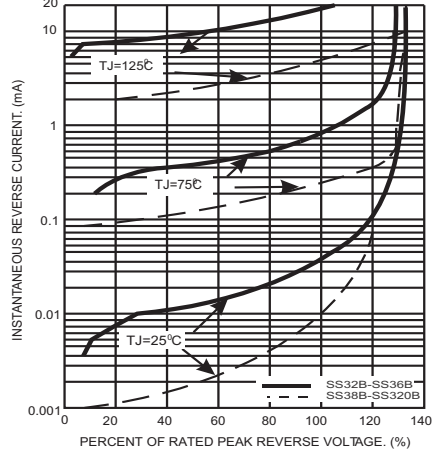


FIG.5- TYPICAL JUNCTION CAPACITANCE

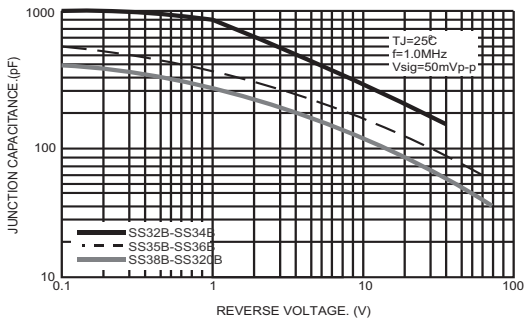
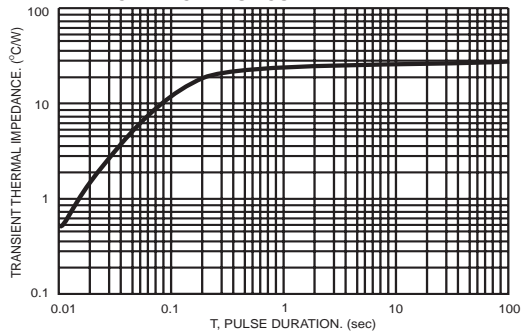


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMBF | 5000/REEL | 8000 | 36X35.8X36.5 | 12.00 | 11.00 |