



# SS1020FL~SS10100FL

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 100 Volts **CURRENT** 1.0 Amperes

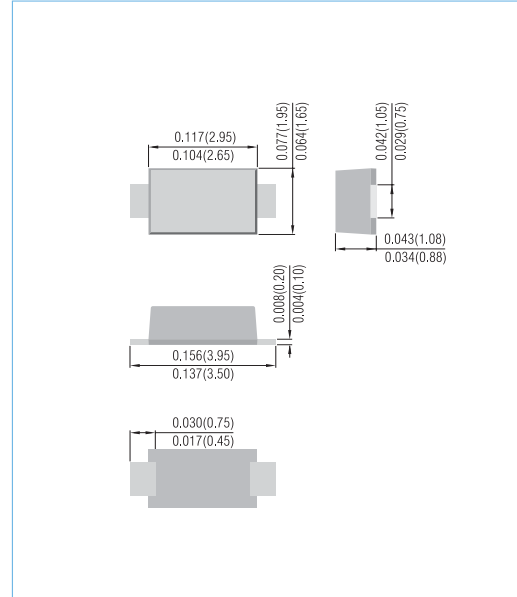
**SOD-123FL/DO-219AB** Unit: inch ( mm )

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: JEDEC DO-219AB, Molded plastic over passivated junction.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0168 gram, Standard Packaging : 8mm tape(EIA-481)
- Marking codes : SS1020FL : G2  
SS1030FL : G3  
SS1040FL : G4  
SS1060FL : G6  
SS10100FL : G10



### ABSOLUTE RATINGS

| PARAMETER   | SYMBOL      | SS1020FL    | SS1030FL | SS1040FL | SS1060FL | SS10100FL | UNITS            |
|---|-------------|-------------|----------|----------|----------|-----------|------------------|
| Reverse Voltage   | $V_R$       | 20          | 30       | 40       | 60       | 100       | V                |
| Peak Reverse Voltage  | $V_{RRM}$   | 20          | 30       | 40       | 60       | 100       | V                |
| Average Rectified current at $T_L=75^\circ\text{C}$           | $I_{F(AV)}$ | 1.0         |          |          |          |           | A                |
| Non-repetitive Peak Forward Surge Current at $t=8.3\text{ms}$ | $I_{FSM}$   | 40          |          |          |          |           | A                |
| Junction Temperature  | $T_J$       | 125         |          |          |          |           | $^\circ\text{C}$ |
| Storage Temperature   | $T_{STG}$   | -50 to +150 |          |          |          |           | $^\circ\text{C}$ |

### ELECTRICAL AND THERMAL CHARACTERISTICS

| PARAMETER   | Symbol          | SS1020FL                                     | SS1030FL     | SS1040FL  | SS1060FL  | SS10100FL | UNITS              |   |
|---|-----------------|--|--------------|-----------|-----------|-----------|--------------------|---|
| Thermal Resistance, Junction to Ambient                     | $R_{\theta JA}$ | 180  |              |           |           |           | $^\circ\text{C/W}$ |   |
| Minimum Reverse Breakdown Voltage at $I_R = 500\mu\text{A}$ | $V_R$           | 20   | 30           | 40        | 60        | 100       | V                  |   |
| Maximum Forward Voltage                                     | $V_F$           | at $I_F=1.0\text{A}$<br>at $I_F=3.0\text{A}$ | 0.45<br>0.75 | 0.55<br>- | 0.55<br>- | 0.70<br>- | 0.85<br>-          | V |
| Reverse Leakage Current at $V_{RRM}$                        | $I_R$           | 500  |              |           |           |           | $\mu\text{A}$      |   |
| Typical Junction Capacitance Rating                         | $C_J$           | 60   | 60           | 60        | 50        | 40        | pF                 |   |

- Note.1 Mounted with minimum recommended pad size, PC Board FR4.  
2.  $T_J=25^\circ\text{C}$  unless otherwise specified.  
3. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.



# SS1020FL~SS10100FL

## Rating and Characteristic Curves

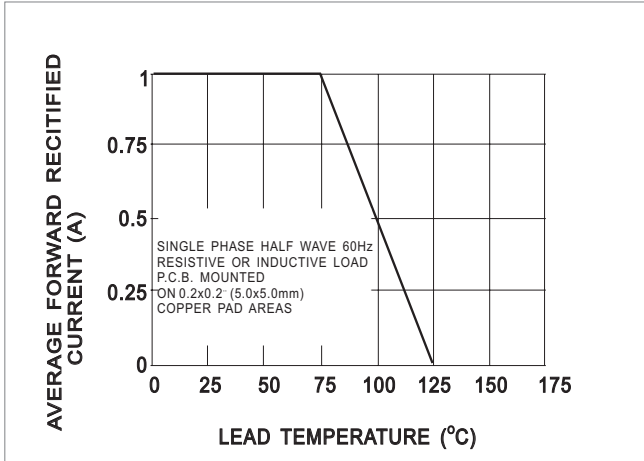


FIG. 1-FORWARD CURRENT DERATING CURVE

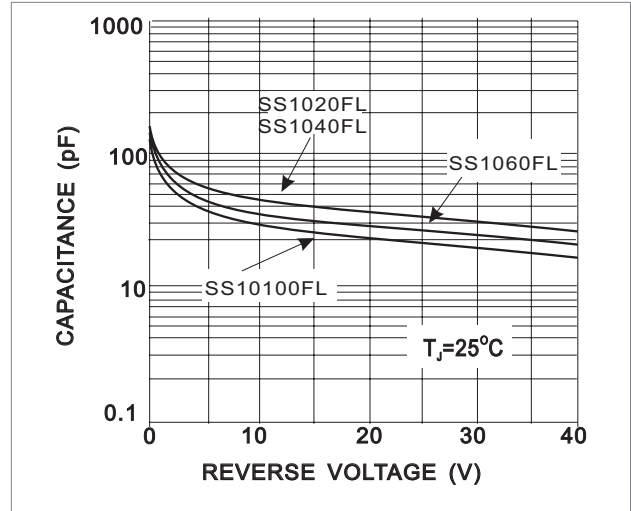


FIG. 2-TYPICAL JUNCTION RATINGS

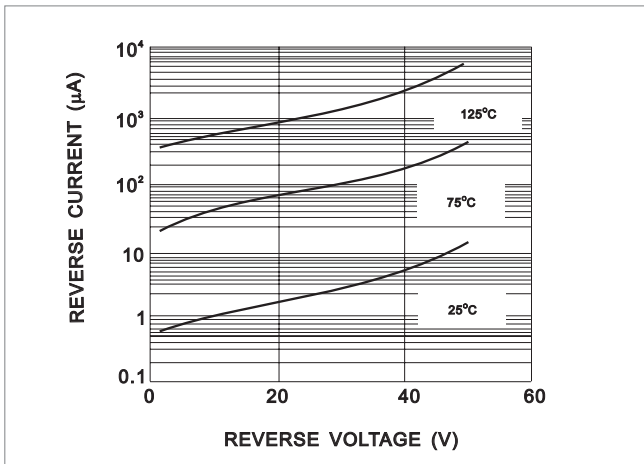


FIG. 3-TYPICAL REVERSE CHARACTERISTIC

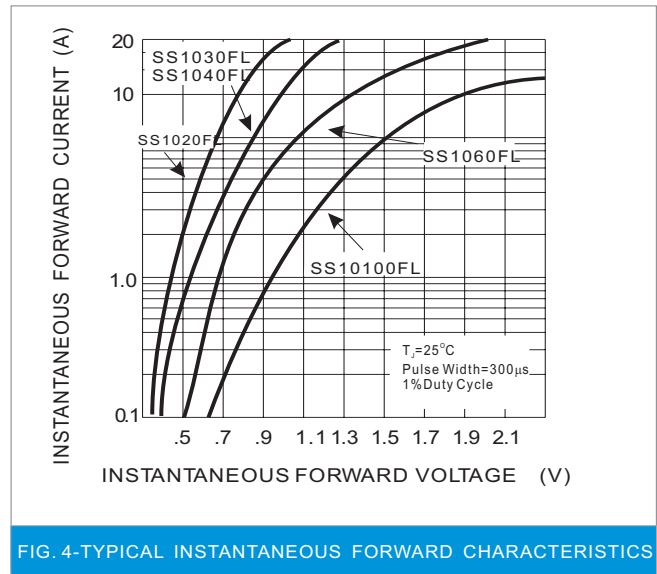
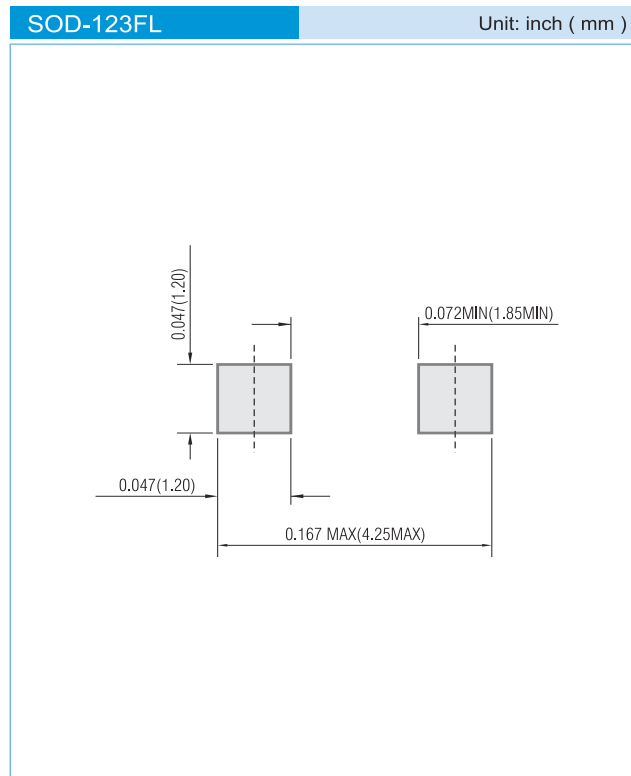


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



## SS1020FL~SS10100FL

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

### LEGAL STATEMENT

#### Copyright PanJit International, Inc 2005

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.