



# SS2020FL~SS20100FL

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 100 Volt **CURRENT** 2 Ampere

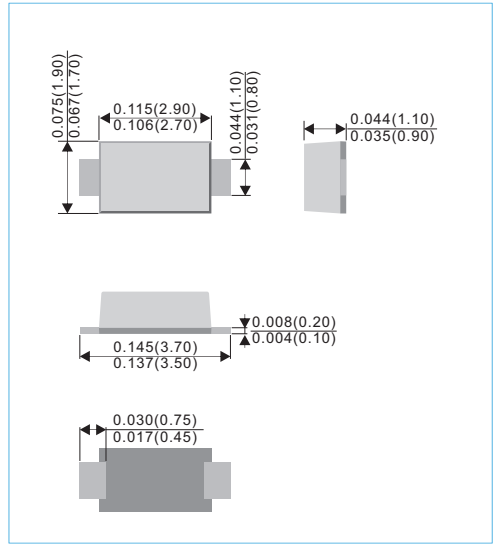
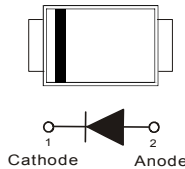
**SOD-123FL** Unit : inch(mm)

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : SOD-123FL, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 ounces, 0.017 grams.
- Polarity : Color band denotes cathode end



### ABSOLUTE RATINGS

| PARAMETER   | SYMBOL      | SS2020FL | SS2030FL | SS2040FL | SS2060FL | SS20100FL | UNITS |   |
|---|-------------|----------|----------|----------|----------|-----------|-------|---|
| Marking Code  |             | GM       | GN       | GP       | GQ       | GR        |       |   |
| Reverse Voltage   | $V_R$       | 20       | 30       | 40       | 60       | 100       | V     |   |
| Peak Reversr Voltage  | $V_{RRM}$   | 20       | 30       | 40       | 60       | 100       | V     |   |
| Average Rectified Current at $T_A=75^\circ\text{C}$           | $I_{F(AV)}$ | 2        |          |          |          |           |       | A |
| Non-repetitive Peak Forward Surge Current at $t=8.3\text{ms}$ | $I_{FSM}$   | 50       |          |          |          |           |       | A |

### ELECTRICAL AND THERMAL CHARACTERISTICS

| PARAMETER   | SYMBOL          | SS2020FL    | SS2030FL | SS2040FL | SS2060FL | SS20100FL | UNITS              |
|---|-----------------|-------------|----------|----------|----------|-----------|--------------------|
| Minimum Reverse Breakdown Voltage at $I_R=500\mu\text{A}$ | $V_R$           | 20          | 30       | 40       | 60       | 100       | V                  |
| Maximum Forward Voltage at $I_F=2\text{A}$                | $V_F$           | 0.5         |          |          | 0.7      | 0.85      | V                  |
| Reverse Leakage Current at $V_{RRM}$                      | $I_R$           | 100         |          |          | 40       |           | $\mu\text{A}$      |
| Typical Thermal Resistance, Junction to Ambient           | $R_{\theta JA}$ | 60          |          |          |          |           | $^\circ\text{C/W}$ |
| Operating Junction and Storage Temperature Range          | $T_J, T_{STG}$  | -50 to +150 |          |          |          |           | $^\circ\text{C}$   |

Note:1 Mounted with minimum recommended pad size, PC Board FR4.  
2.  $T_A=25^\circ\text{C}$  unless otherwise specified.



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## Rating and Characteristic Curves

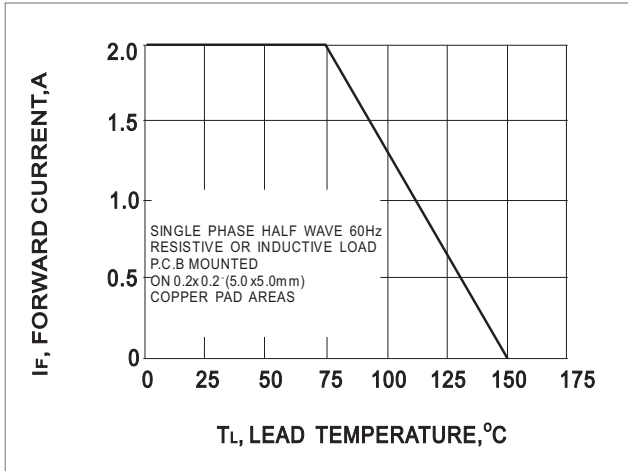


FIG. 1 FORWARD CURRENT DERATING CURVE

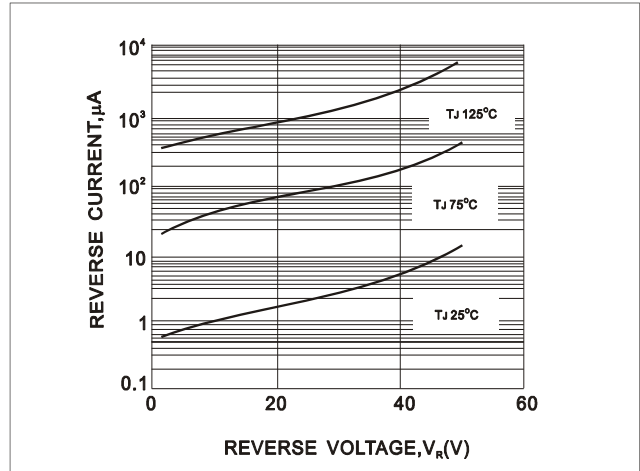


FIG. 2 TYPICAL REVERSE CHARACTERISTIC

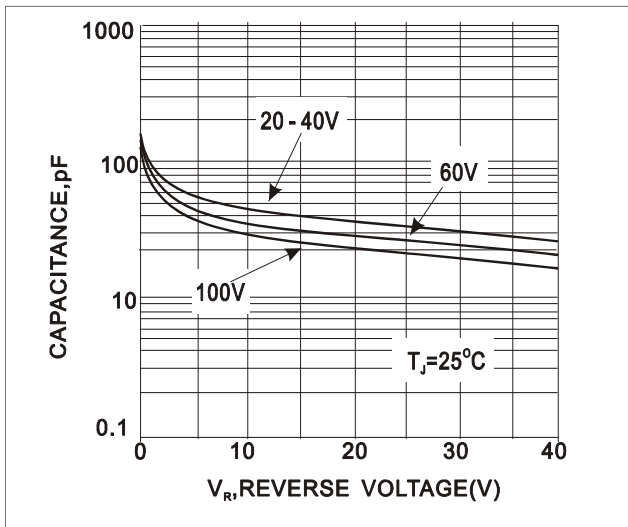


FIG. 3 TYPICAL JUNCTION CHARACTERISTIC

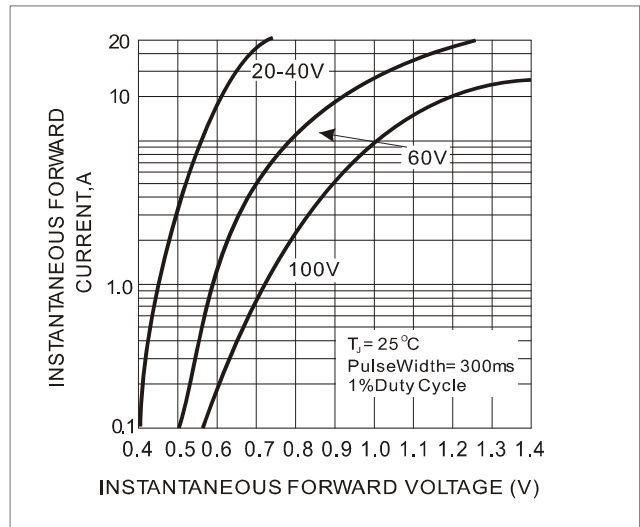


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

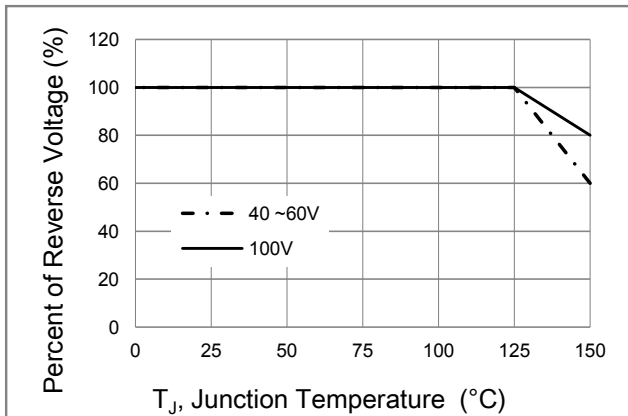
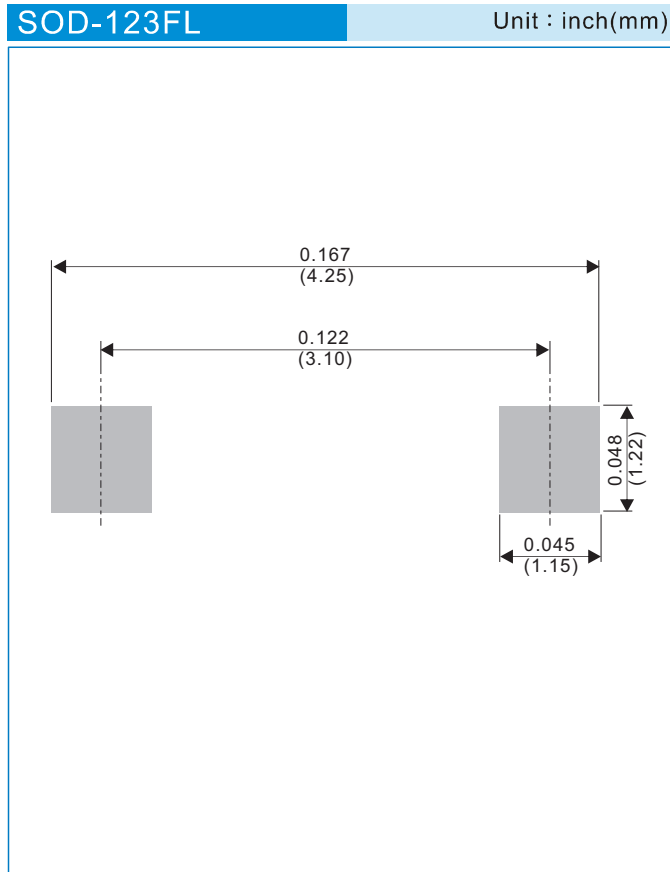


Fig.5 Operating Temperature Derating Curve



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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### Part No\_packing code\_Version

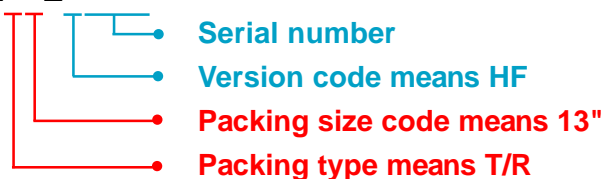
SS2020FL\_R1\_00001

SS2020FL\_R2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | <b>A</b>             | N/A                              | <b>0</b>             | <b>HF</b>                 | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | <b>RoHS</b>               | <b>1</b>             | serial number                         |
| Bulk Packing (B/P)                   | <b>B</b>             | 13"                              | <b>2</b>             |                           |                      |                                       |
| Tube Packing (T/P)                   | <b>T</b>             | 26mm                             | <b>X</b>             |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | <b>S</b>             | 52mm                             | <b>Y</b>             |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | <b>L</b>             | PANASERT T/B CATHODE UP (PBCU)   | <b>U</b>             |                           |                      |                                       |
| FORMING                              | <b>F</b>             | PANASERT T/B CATHODE DOWN (PBCD) | <b>D</b>             |                           |                      |                                       |



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