



# SS1020FL~SS10200FL

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 200 Volt **CURRENT** 1 Ampere

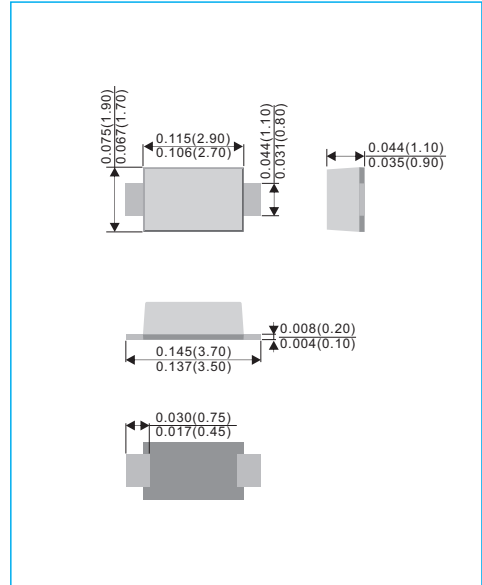
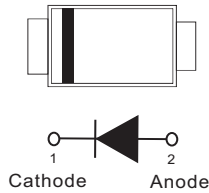
**SOD-123FL** Unit : inch(mm)

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- 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
- Apporx. Weight: 0.0006 ounces, 0.0173 grams
- Polarity: Color band denotes cathode end



### ABSOLUTE RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER  | SYMBOL              | SS1020FL | SS1030FL | SS1040FL | SS1060FL | SS10100FL | SS10150FL | SS10200FL | UNITS |
|--|---------------------|----------|----------|----------|----------|-----------|-----------|-----------|-------|
| Marking Code   | -                   | G2       | G3       | G4       | G6       | G10       | G15       | G20       | -     |
| Reverse Voltage                                      | V <sub>R</sub>      | 20       | 30       | 40       | 60       | 100       | 150       | 200       | V     |
| Peak Reversr Voltage                                 | V <sub>RRM</sub>    | 20       | 30       | 40       | 60       | 100       | 150       | 200       | V     |
| Average Rectified Current                            | I <sub>F(AV)</sub>  | 1        |          |          |          |           |           |           | A     |
| Forward Current RMS, D=0.5                           | I <sub>F(RMS)</sub> | 2        |          |          |          |           |           |           | A     |
| Non-repetitive Peak Forward Surge Current at t=8.3ms | I <sub>FSM</sub>    | 40       |          |          |          |           | 30        |           | A     |

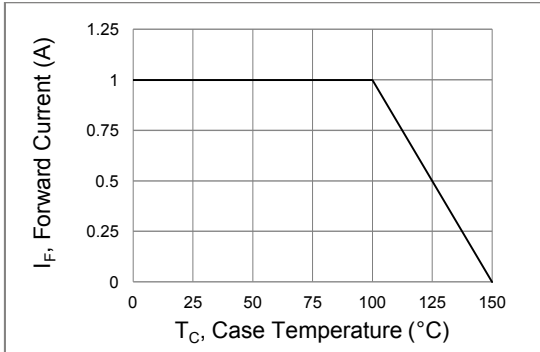
### ELECTRICAL AND THERMAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER  | SYMBOL                               | SS1020FL    | SS1030FL | SS1040FL | SS1060FL | SS10100FL | SS10150FL | SS10200FL | UNITS |
|--|--------------------------------------|-------------|----------|----------|----------|-----------|-----------|-----------|-------|
| Minimum Reverse Breakdown Voltage at I <sub>R</sub> =500μA   | V <sub>R</sub>                       | 20          | 30       | 40       | 60       | 100       | 150       | 200       | V     |
| Maximum Forward Voltage at I <sub>F</sub> =1A                | V <sub>F</sub>                       | 0.55        |          |          | 0.7      | 0.8       | 0.85      |           | V     |
| Reverse Leakage Current at V <sub>RRM</sub>                  | I <sub>R</sub>                       | 30          |          |          |          |           |           |           | μA    |
| Typical Thermal Resistance (Note 1) (Note 2)                 | R <sub>θJC</sub><br>R <sub>θJA</sub> | 32<br>200   |          |          |          |           |           |           | °C/W  |
| Typical Junction Capacitance Rating at V <sub>R</sub> =0V    | C <sub>J</sub>                       | 155         |          |          | 125      | 100       | 85        |           | pF    |
| Operating Junction Temperature and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub>    | -55 to +150 |          |          |          |           |           |           | °C    |

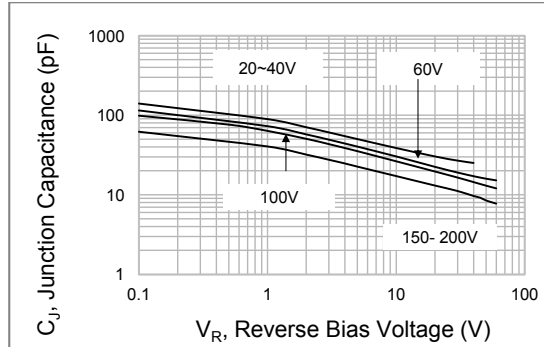
Note:1.Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area  
2.Mounted on a FR4 PCB, single-sided copper, mini pad.



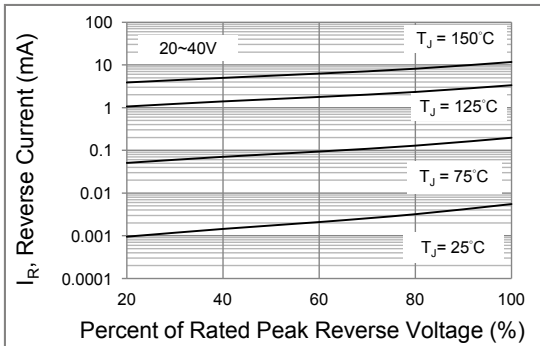
# SS1020FL~SS10200FL



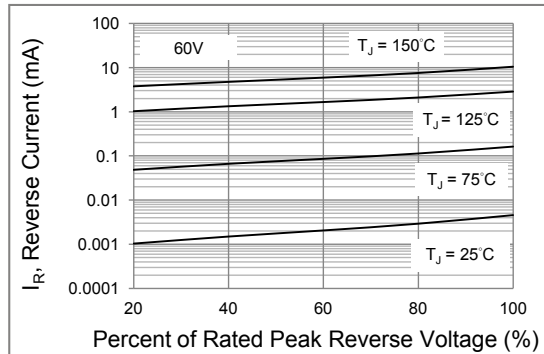
**Fig.1 Forward Current Derating Curve**



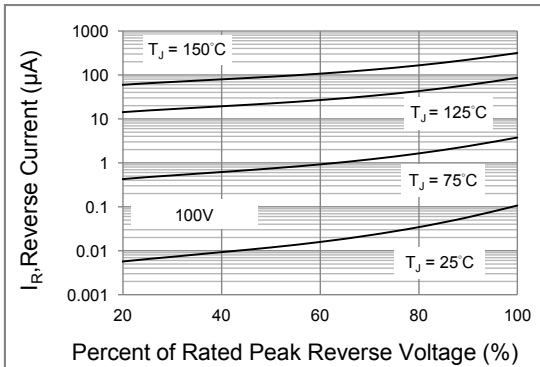
**Fig.2 Typical Junction Capacitance**



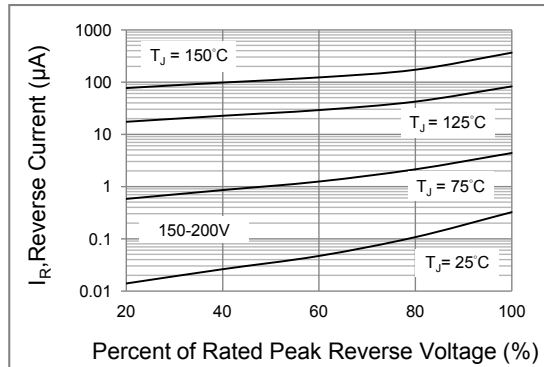
**Fig.3 Typical Reverse Characteristics**



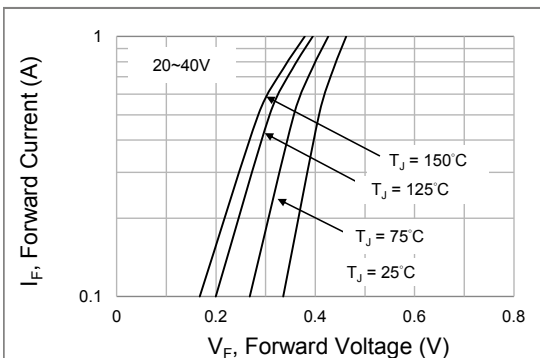
**Fig.4 Typical Reverse Characteristics**



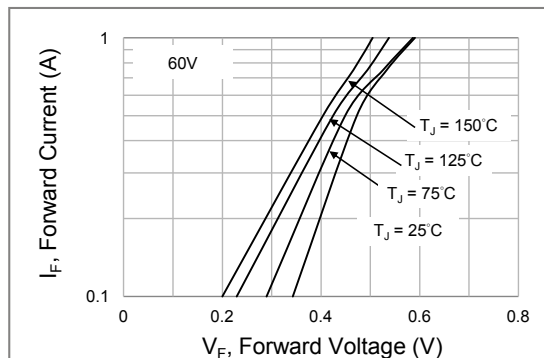
**Fig.5 Typical Reverse Characteristics**



**Fig.6 Typical Reverse Characteristics**



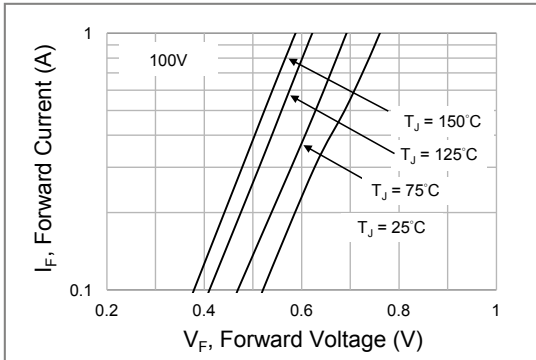
**Fig.7 Typical Forward Characteristics**



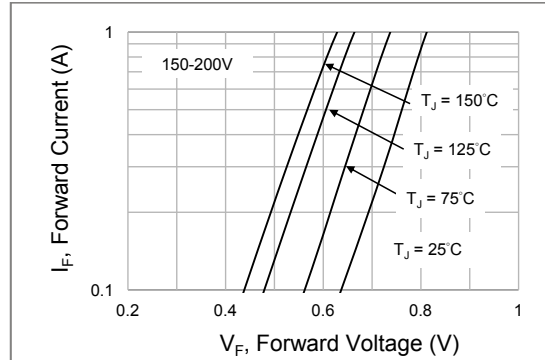
**Fig.8 Typical Forward Characteristics**



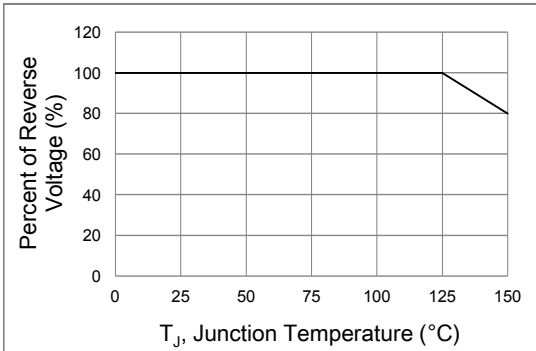
# SS1020FL~SS10200FL



**Fig.9 Typical Forward Characteristics**



**Fig.10 Typical Forward Characteristics**



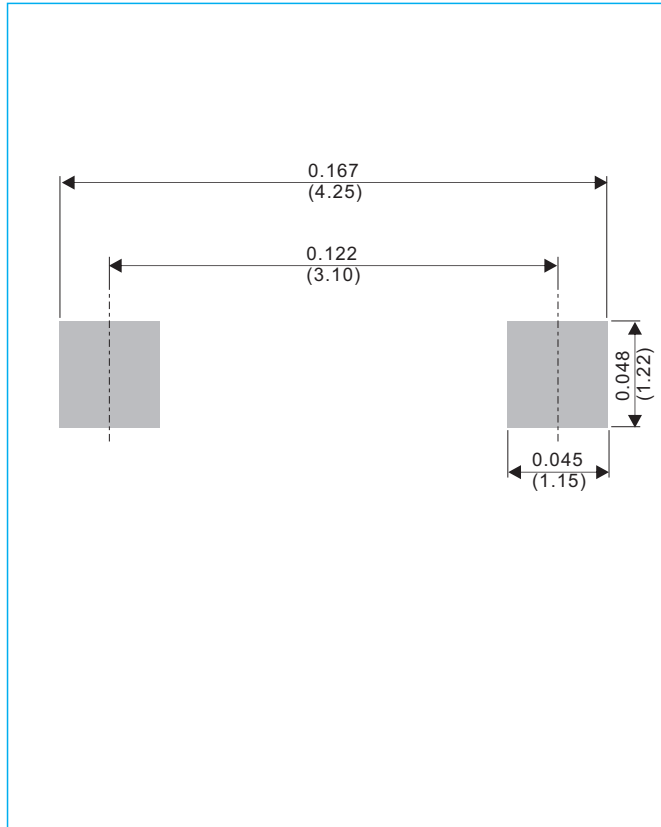
**Fig.11 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT

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



## ORDER INFORMATION

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



# SS1020FL~SS10200FL

## Part No\_packing code\_Version

SS1020FL\_R1\_00001

SS1020FL\_R2\_00001

For example :

**RB500V-40** **R2** **00001**



| Packing Code XX                      |                      |                                  |                      | Version Code XXXXX |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|--------------------|----------------------|---------------------------------------|
| 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)        | A                    | N/A                              | 0                    | HF                 | 0                    | serial number                         |
| Tape and Reel (T/R)                  | R                    | 7"                               | 1                    | RoHS               | 1                    | serial number                         |
| Bulk Packing (B/P)                   | B                    | 13"                              | 2                    |                    |                      |                                       |
| Tube Packing (T/P)                   | T                    | 26mm                             | X                    |                    |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                             | Y                    |                    |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP (PBCU)   | U                    |                    |                      |                                       |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD) | D                    |                    |                      |                                       |



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