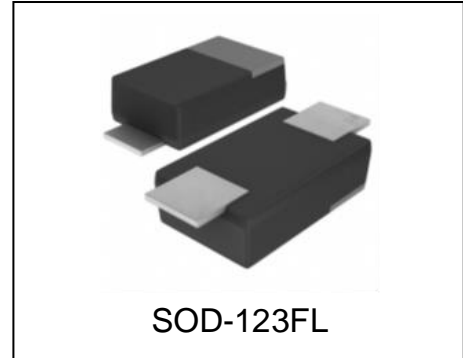


Features

- 2A Schottky barrier diode
- Schottky barrier rectifier
- Guarding protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance



Mechanical Data

- Case: SOD-123FL, molded plastic body
- Mounting position: any
- Polarity: Color band denotes cathode end

Absolute Maximum Ratings and Electronics characteristics

Ratings@25°C ambient temperature unless otherwise specified

| Parameter | Symbol | WSR4020D1F | WSR6020D1F | WSR10020D1F | WSR15020D1F | WSR20020D1F | UNITS |
|---|-----------------|------------|------------|-------------|-------------|-------------|--------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 40 | 60 | 100 | 150 | 200 | V |
| Maximum RMS voltage | V_{RMS} | 28 | 42 | 70 | 105 | 140 | V |
| Maximum DC blocking voltage | V_{DC} | 40 | 60 | 100 | 150 | 200 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 2.0 | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave | I_{FSM} | 40 | | | | | A |
| Maximum instantaneous forward voltage at $I_F=2.0A$ | V_F | 0.55 | 0.7 | 0.85 | 0.95 | | V |
| Maximum DC reverse current ($T_a=25^\circ C$) At rated DC blocking voltage ($T_a=100^\circ C$) | I_R | 0.5 20 | | 0.1 10 | | | mA |
| Typical thermal resistance(junction to ambient) | $R_{\theta JA}$ | 70 | | | | | $^\circ C/W$ |
| Operating temperature range | T_J | -55 ~ +125 | -55 ~ +150 | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | -55 ~ +150 | | | | | $^\circ C$ |

Typical characteristics (Ta=25°C, unless otherwise noted)

Fig. 1 - PEAK FORWARD SURGE CURRENT

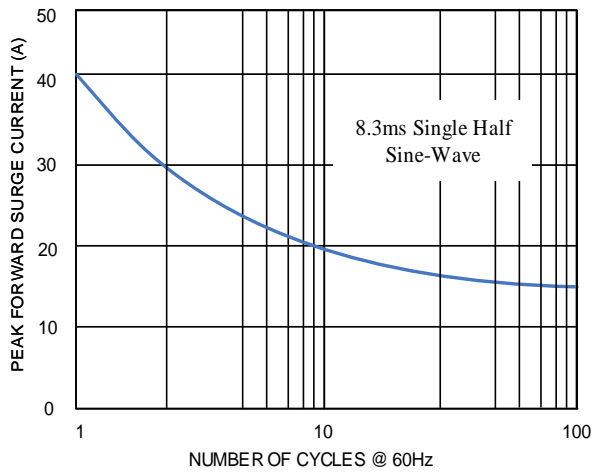
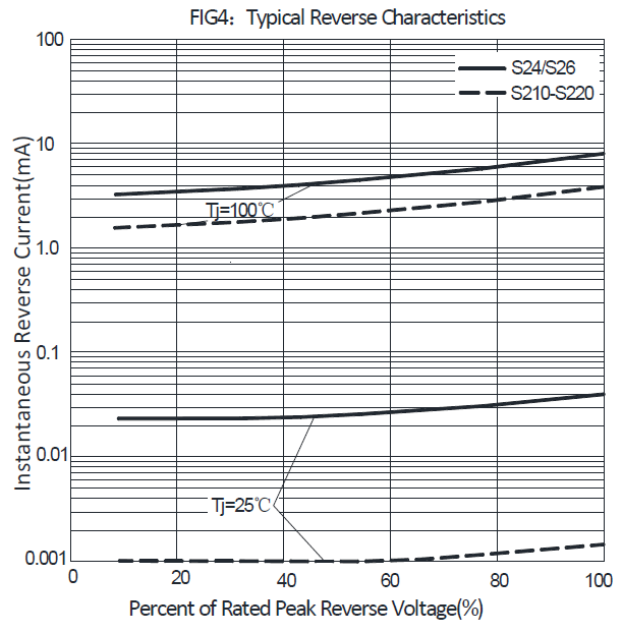
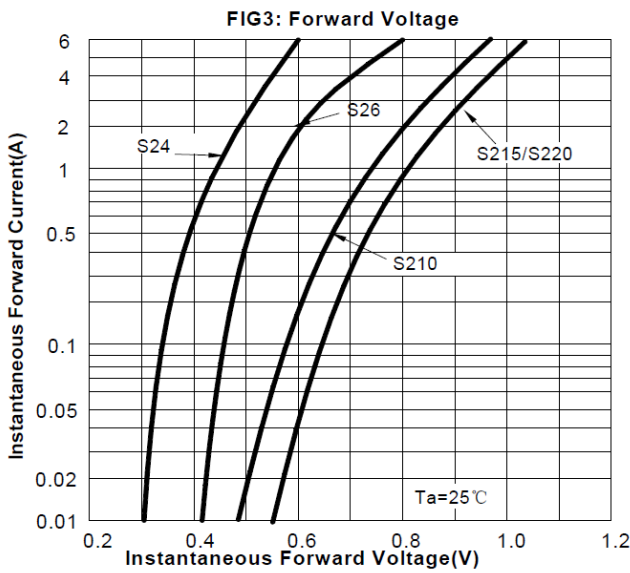
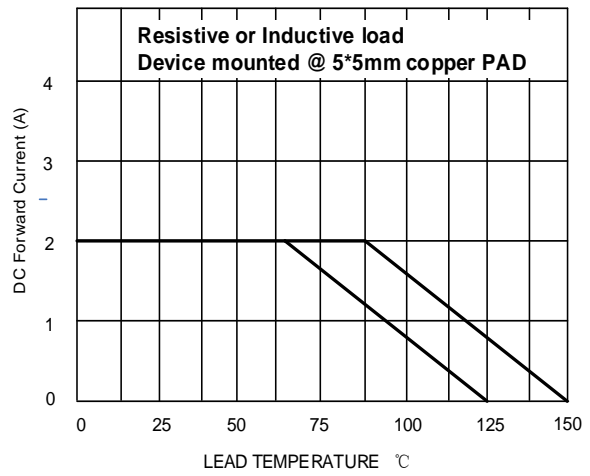
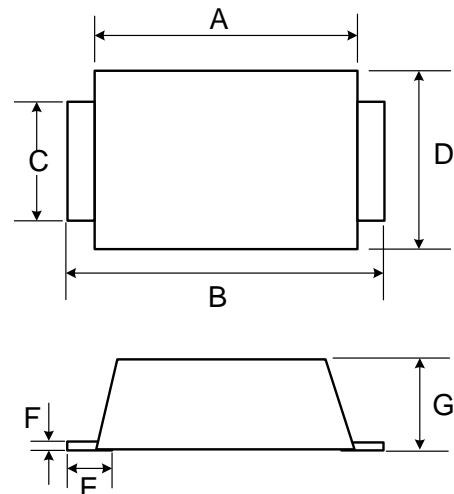


Fig. 2 - FORWARD CURRENT DERATING CURVE

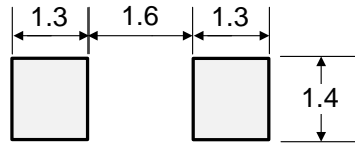


Outline Drawing

| Ref. (mm) | Millimeters | |
|-----------|-------------|------|
| | Min. | Max. |
| A | 2.50 | 2.95 |
| B | 3.40 | 3.95 |
| C | 0.70 | 1.10 |
| D | 1.50 | 1.95 |
| E | 0.35 | 0.95 |
| F | 0.05 | 0.26 |
| G | 0.90 | 1.40 |



Recommended Solder Pad Layout



Dimensions in mm

Marking Code

| | | | | | |
|--------------|------------|------------|-------------|-------------|-------------|
| Part Number | WSR4020D1F | WSR6020D1F | WSR10020D1F | WSR15020D1F | WSR20020D1F |
| Marking Code | S24 | S26 | S210 | S215 | S220 |

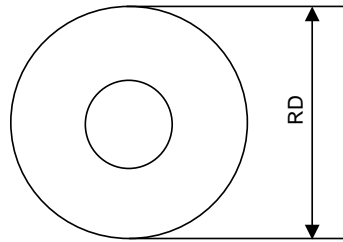
Package Information

Tape & Reel: 3000 pcs.

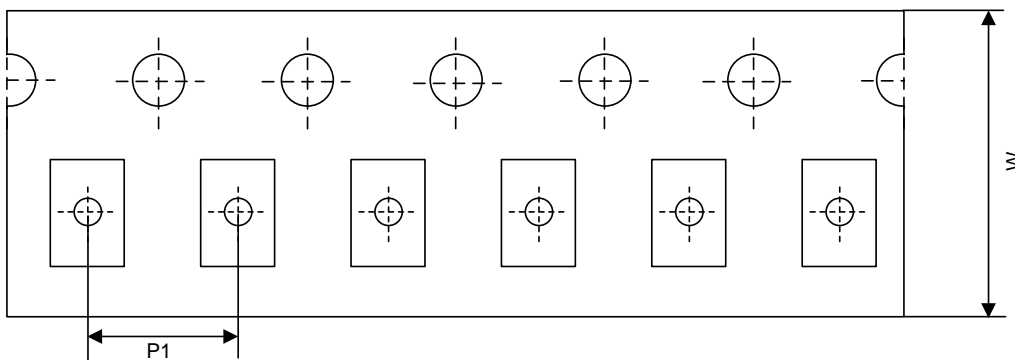
Tape and Reel Information

| | | |
|----|---|--------|
| RD | Reel Dimensions | 7 inch |
| W | Overall width of the carrier tape | 8 mm |
| P1 | Pitch between successive cavity centers | 4 mm |

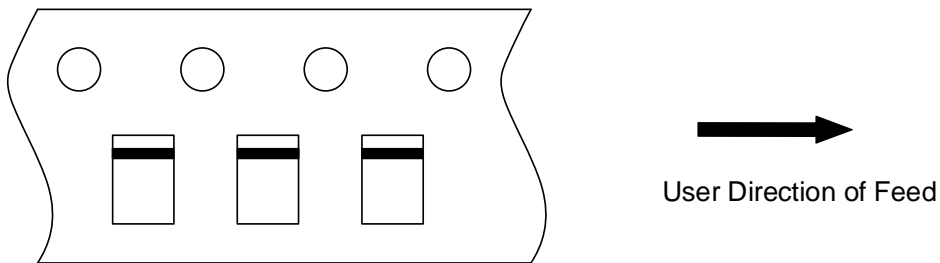
Reel Dimensions Schematic diagram



Tape Dimensions Schematic diagram



Quadrant Assignments for PIN1 Orientation in tape



Top View

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For additional information, please contact your local Sales Representative.

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*Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.*