

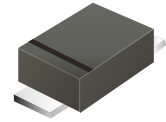
RS2AWF-HF Thru. RS2MWF-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 2 Amp

RoHS Device

Halogen Free



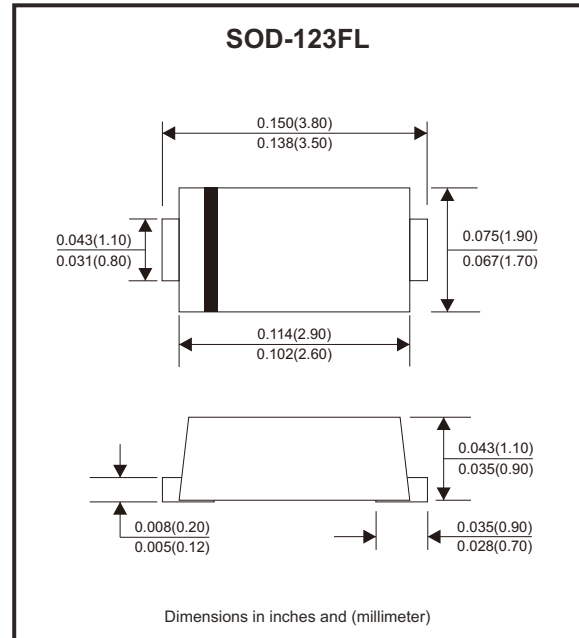
Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- Easy to pick and place.
- Fast reverse recovery time.

Mechanical data

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, method 2026.

Circuit Diagram



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

| Parameter | Symbols | RS2AWF -HF | RS2BWF -HF | RS2DWF -HF | RS2GWF -HF | RS2JWF -HF | RS2KWF -HF | RS2MWF -HF | Units |
|--|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current at $T_c = 125^\circ\text{C}$ | $I_{F(AV)}$ | 2 | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 50 | | | | | | | A |
| Max. forward voltage at 2A | V_F | 1.3 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$ | I_R | 5 100 | | | | | | | μA |
| Typical junction capacitance at $V_R = 4\text{V}$, $f = 1\text{MHz}$ | C_j | 30 | | | | | | | pF |
| Maximum reverse recovery time (Note 1) | t_{rr} | 150 | | | | 250 | 500 | | ns |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ $R_{\theta JC}$ | 75 22 | | | | | | | $^\circ\text{C/W}$ |
| Operating and storage temperature range | T_j, T_{stg} | -55 ~ +150 | | | | | | | $^\circ\text{C}$ |

Notes: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.
2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Rating and Characteristic Curves (RS2AWF-HF Thru. RS2MWF-HF)

Fig.1 - Forward Current Derating Curve

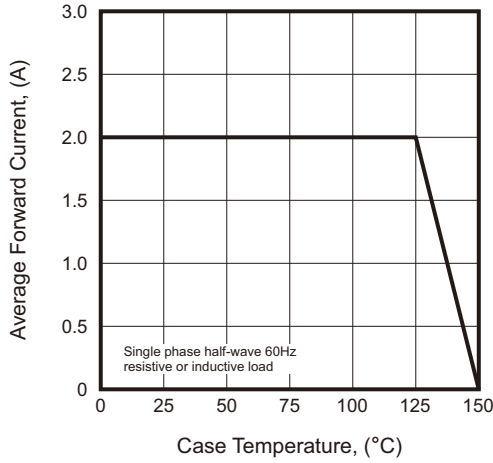


Fig.2 - Typical Reverse Characteristics

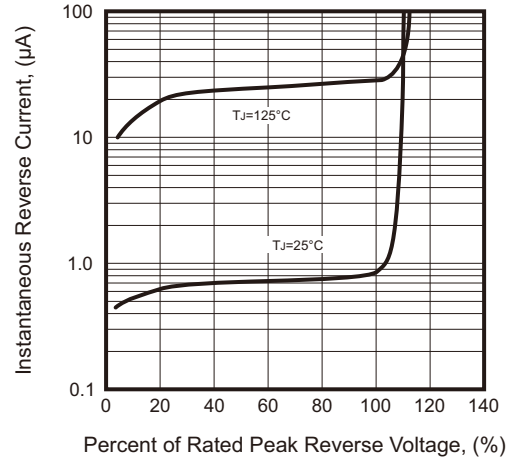


Fig.3 - Typical Instantaneous Forward Characteristic

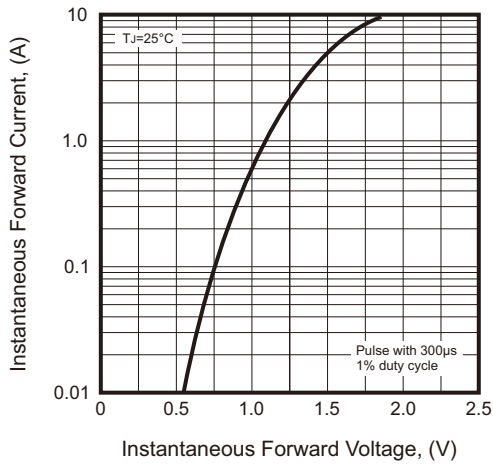


Fig.4 - Typical Junction Capacitance

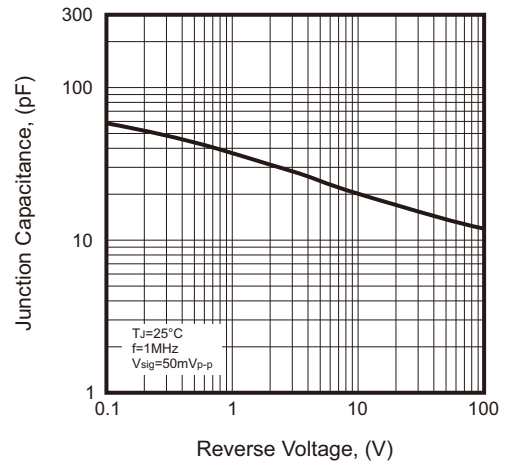
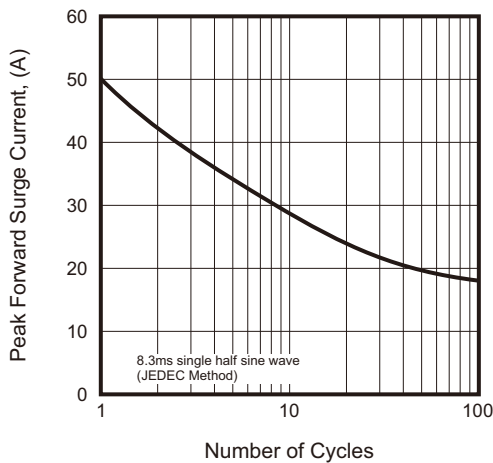
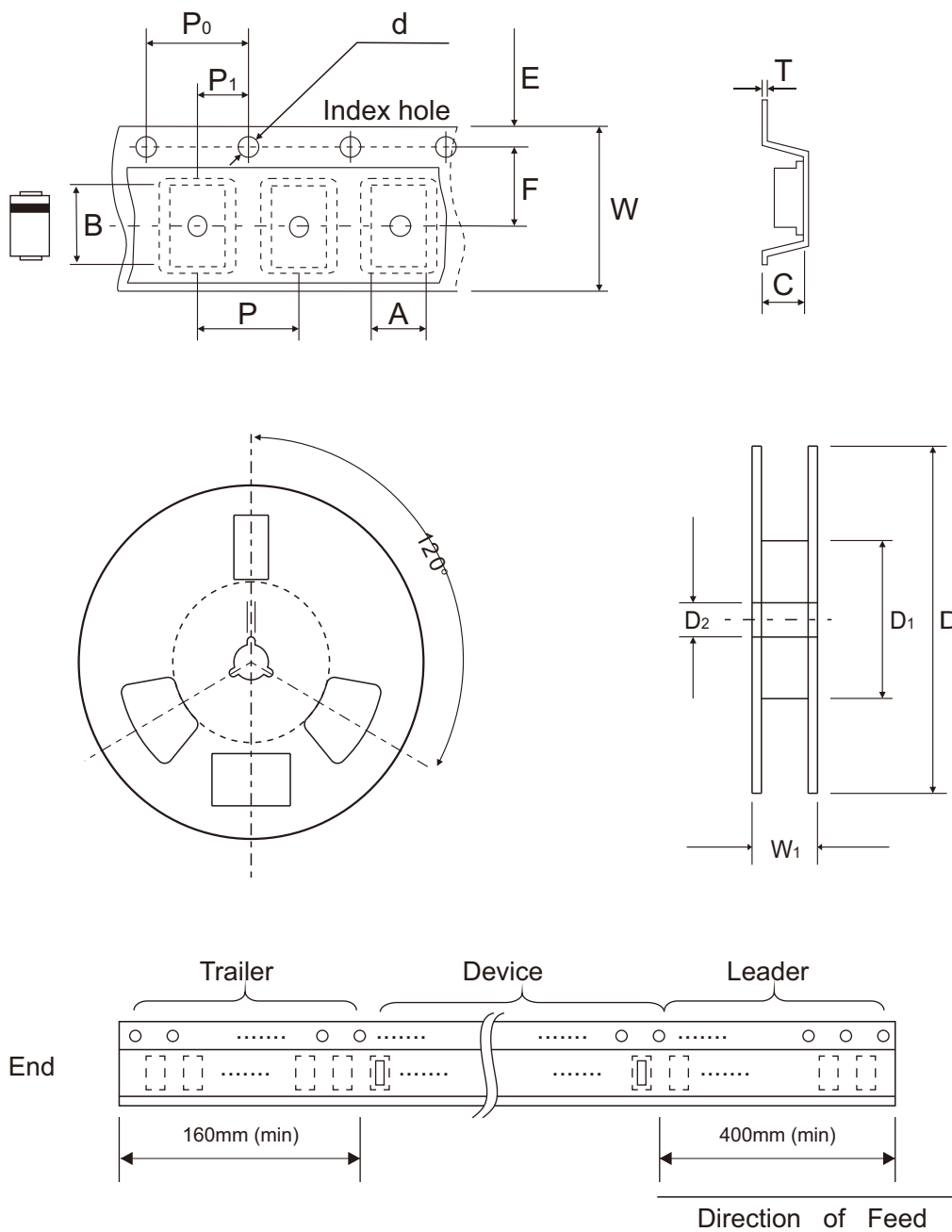


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



Reel Taping Specification



| | SYMBOL | A | B | C | d | D | D1 | D2 |
|-----------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| SOD-123FL | (mm) | 2.05 ± 0.10 | 3.90 ± 0.10 | 1.28 ± 0.05 | 1.55 ± 0.05 | 180 ± 1.00 | 60.00 ± 1.50 | 13.00 ± 0.20 |
| | (inch) | 0.081 ± 0.004 | 0.154 ± 0.004 | 0.050 ± 0.002 | 0.061 ± 0.002 | 7.087 ± 0.039 | 2.362 ± 0.059 | 0.512 ± 0.008 |

| | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|-----------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| SOD-123FL | (mm) | 1.75 ± 0.10 | 3.50 ± 0.10 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.25 ± 0.02 | 8.00 ± 0.30 | 10.70 + 2.00 - 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.004 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.010 ± 0.001 | 0.315 ± 0.012 | 0.421 + 0.079 - 0.039 |

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