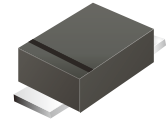


ES2AWF-HF Thru. ES2JWF-HF

Reverse Voltage: 50 to 600 Volts

Forward Current: 2 Amp

RoHS Device
Halogen Free



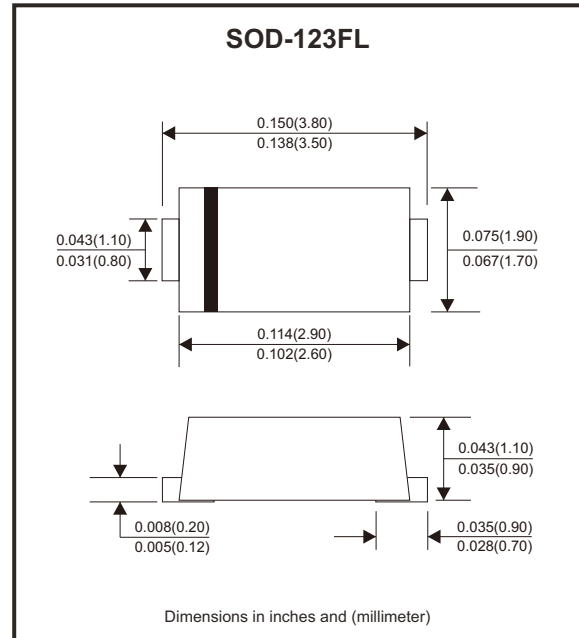
Features

- Easy pick and place.
- For surface mounted applications.
- Low profile package.
- Built-in strain relief.
- Super fast recovery times for high efficiency.

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 | ES2AWF -HF | ES2BWF -HF | ES2CWF -HF | ES2DWF -HF | ES2EWF -HF | ES2GWF -HF | ES2JWF -HF | Units |
|--|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum average forward rectified current at T _c = 125°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 | 1.0 | | | 1.25 | | 1.68 | | V |
| Maximum DC reverse current at rated DC blocking voltage T _a = 25°C T _a = 125°C | I _R | 5 100 | | | | | | | μA |
| Typical junction capacitance at V _R = 4V, f = 1MHz | C _j | 30 | | | | | | | pF |
| Maximum reverse recovery time (Note 1) | t _{rr} | 35 | | | | | | | ns |
| Typical thermal resistance (Note 2) | R _{θJA} R _{θJC} | 75 22 | | | | | | | °C/W |
| Operating and storage temperature range | T _j , T _{stg} | -55 ~ +150 | | | | | | | °C |

Notes: 1. Measured with I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A.
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 (ES2AWF-HF Thru. ES2JWF-HF)

Fig.1 - Max. Average Forward Current Rating

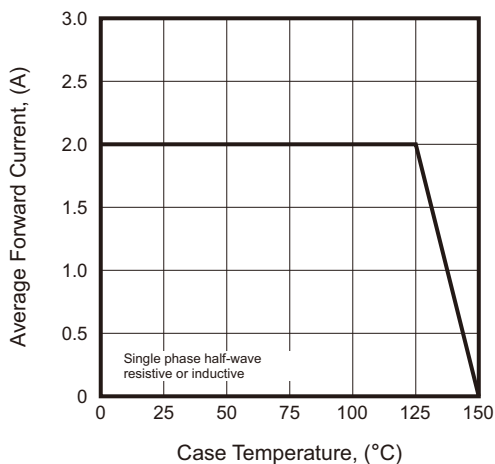


Fig.2 - Typical Reverse Characteristics

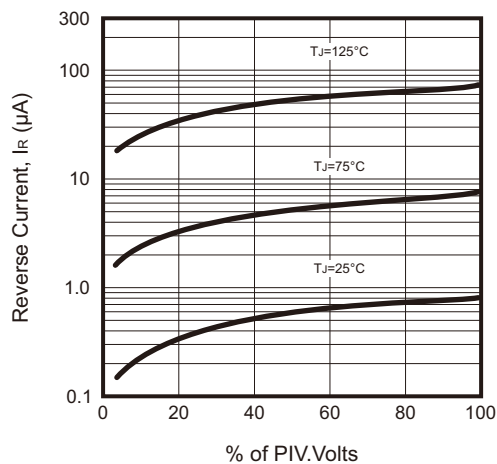


Fig.3 - Typical Forward Characteristic

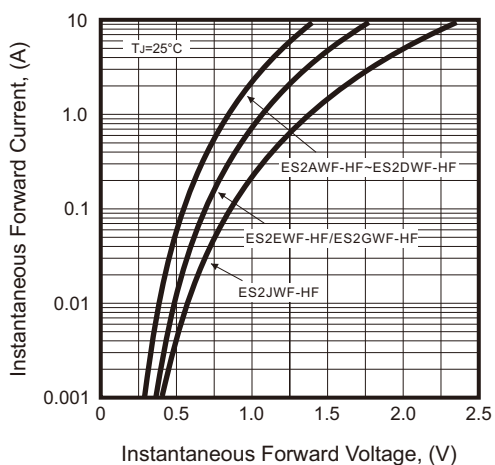


Fig.4 - Typical Junction Capacitance

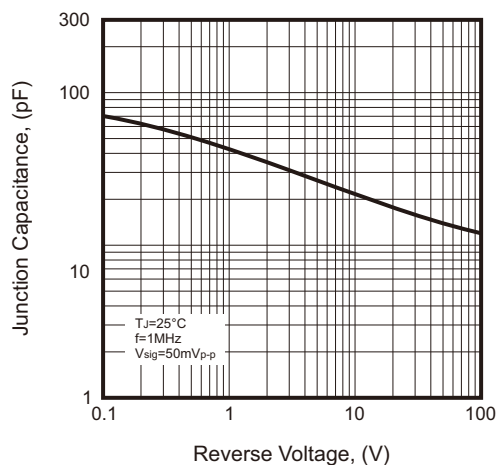
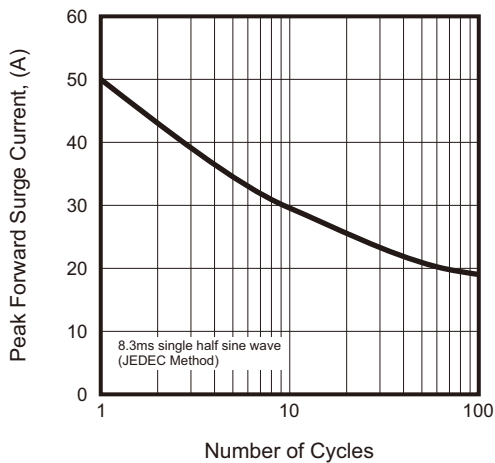


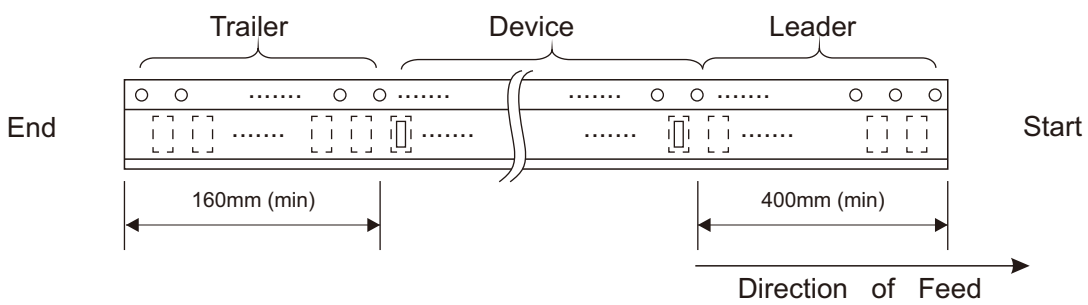
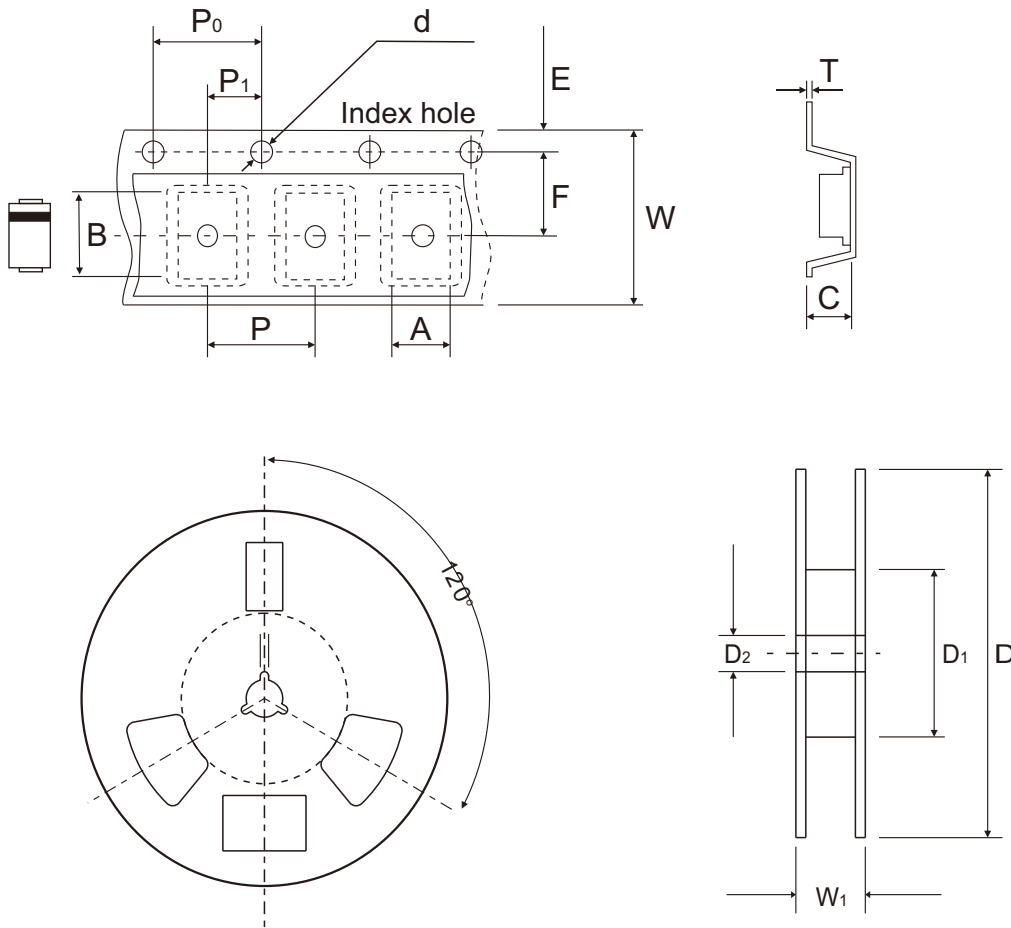
Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



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REV:A

Reel Taping Specification



| SOD-123FL | SYMBOL | A | B | C | d | D | D1 | D2 |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| | (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 | |

| SOD-123FL | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|------------------------|
| | (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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REV:A