

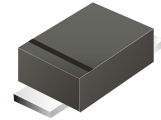
ACGRTS4001-HF Thru. ACGRTS4007-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

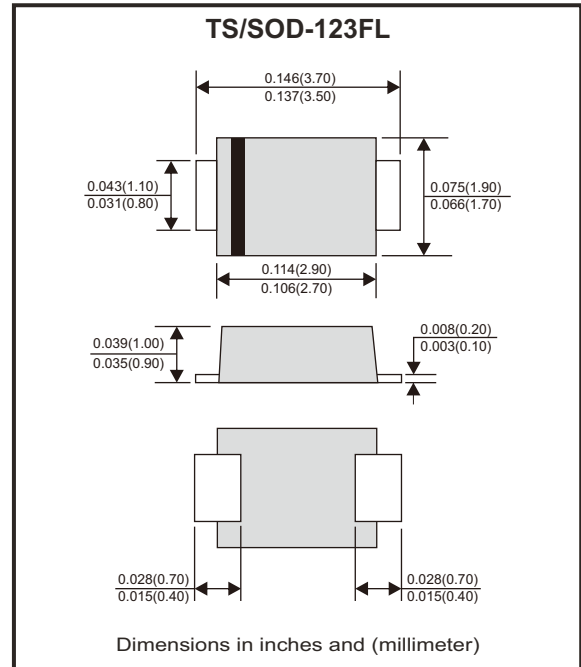


Features

- Ideal for surface mount applications
- Easy pick and place
- Low leakage current
- Meets MSL Level 1, per J-STD-020, LF maximum peak of 260°C
- Comply with AEC-Q101

Mechanical data

- Epoxy: UL94V-0 rated flame retardant
- Case: Molded plastic, SOD-123FL
- Terminals: Solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 0.014 grams approx.



Circuit diagram



Maximum Ratings (at T_A=25°C unless otherwise noted)

| Parameter | Symbol | ACGRTS | | | | | | | Unit |
|---|------------------------|-------------|---------|---------|---------|---------|---------|---------|------|
| | | 4001-HF | 4002-HF | 4003-HF | 4004-HF | 4005-HF | 4006-HF | 4007-HF | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum averaged forward current | I _O | 1.0 | | | | | | | A |
| Maximum Instantaneous forward voltage I _F =1.0A @ 25°C | V _F | 1.0 | | | | | | | V |
| Non-repetitive forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 30 | | | | | | | A |
| Reverse current at rated DC blocking voltage | @T _J =25°C | 10 | | | | | | | μA |
| | @T _J =100°C | 50 | | | | | | | |
| Typical thermal resistance, Junction to ambient (Note 1) | R _{θJA} | 75 | | | | | | | °C/W |
| Operating junction temperature | T _J | -55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | -55 to +150 | | | | | | | °C |
| Typical junction capacitance f=1MHz and applied 4V DC reverse voltage | C _J | 6 | | | | | | | pF |

Notes: 1. Thermal resistance from junction to ambient on FR4 PC board, 1"x1", 2 oz. Copper pad areas.

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Rating and Characteristic Curves (ACGRTS4001-HF Thru. ACGRTS4007-HF)

Fig.1 - Typical Current Derating Curve

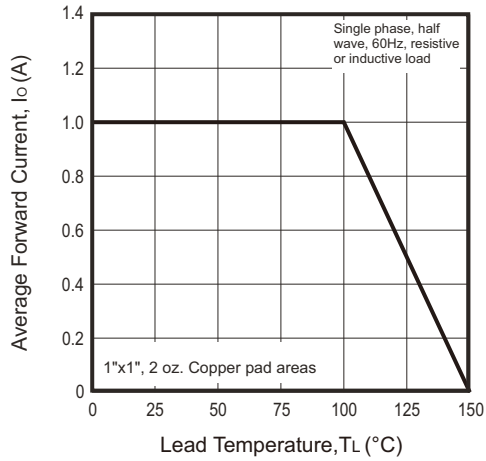


Fig.2 - Typical Forward Characteristics

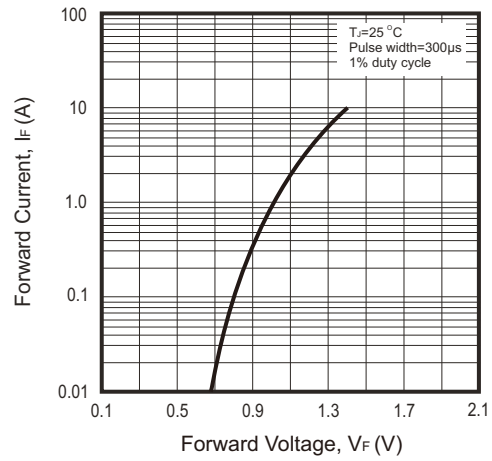


Fig.3 - Non-repetitive Forward Surge Current

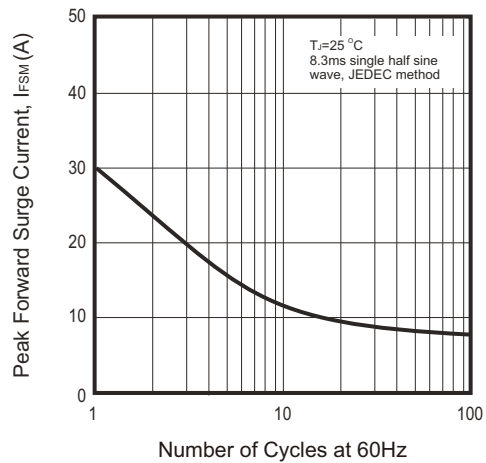


Fig.4 - Typical Reverse Characteristics

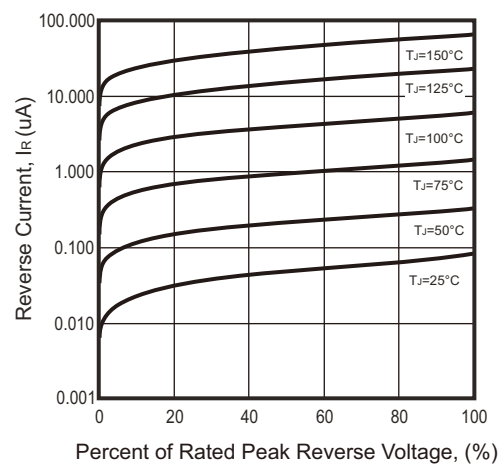
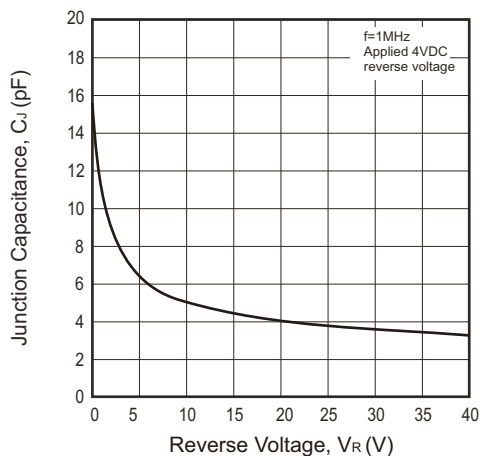
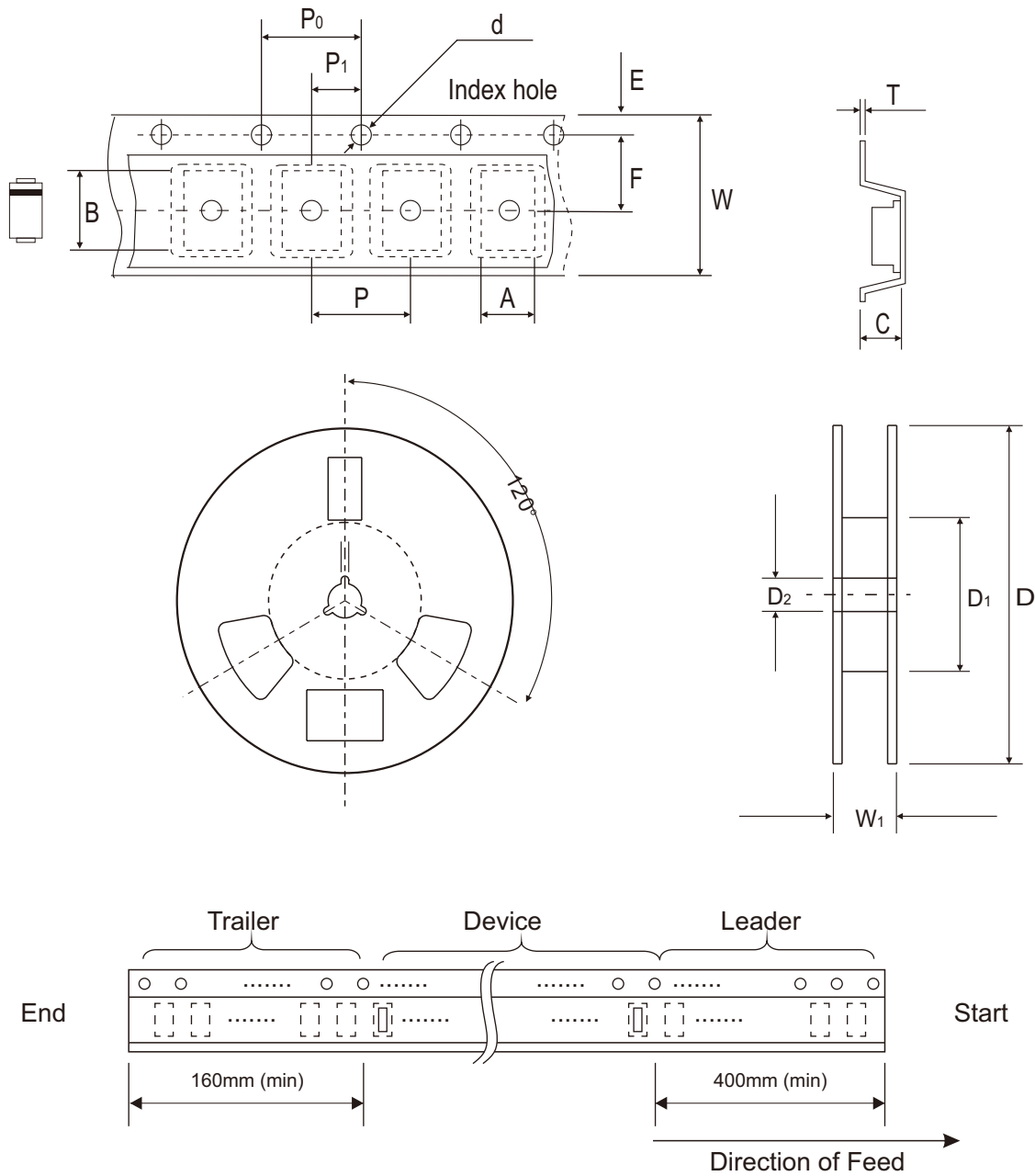


Fig.5 - Typical Junction Capacitance



Reel Taping Specification



| | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|--------------|--------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| TS/SOD-123FL | (mm) | 1.95 ± 0.10 | 3.85 ± 0.10 | 1.25 ± 0.10 | 1.55 ± 0.05 | 178.00 ± 1.00 | 60.00 ± 0.50 | 13.50 ± 0.20 |
| | (inch) | 0.077 ± 0.004 | 0.152 ± 0.004 | 0.049 ± 0.004 | 0.061 ± 0.002 | 7.008 ± 0.039 | 2.362 ± 0.020 | 0.531 ± 0.008 |

| | SYMBOL | E | F | P | P ₀ | P ₁ | T | W | W ₁ |
|--------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------------|
| TS/SOD-123FL | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.20 ± 0.05 | 8.00 ± 0.30 | 12.00 + 0.50 - 0 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.008 ± 0.002 | 0.315 ± 0.012 | 0.472 + 0.020 - 0 |

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