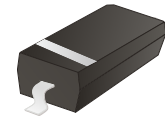


ACDSW21-HF

RoHS Device
Halogen Free



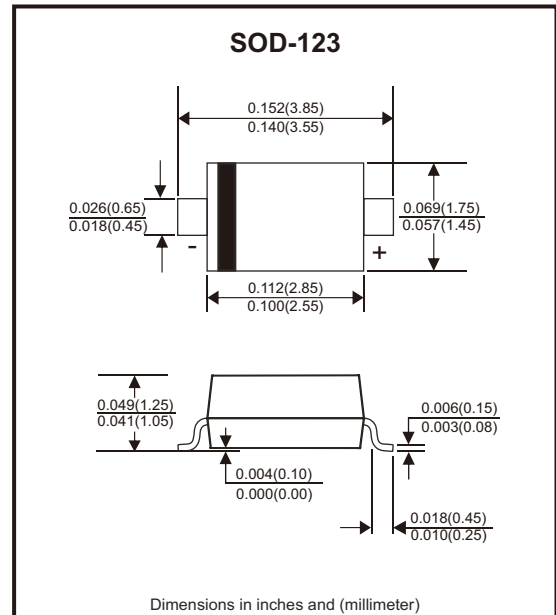
Features

- Fast switching speed.
- Low reverse current.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOD-123, molded plastic.
- Weight: 0.01 grams (approx.).

Circuit diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|---------------------|------------|------|
| Non-repetitive peak reverse voltage | V _{RM} | 250 | V |
| Peak repetitive reverse voltage | V _{RRM} | 200 | V |
| Working peak reverse voltage | V _{RWM} | | |
| RMS reverse voltage | V _{R(RMS)} | 141 | V |
| Average rectified output current | I _o | 200 | mA |
| Non-repetitive peak forward surge current @ t=8.3ms | I _{FSM} | 2.0 | A |
| Power dissipation | P _D | 250 | mW |
| Thermal resistance (junction to ambient) | R _{θJA} | 500 | °C/W |
| Junction temperature | T _J | -55 ~ +150 | °C |
| Storage temperature | T _{STG} | -55 ~ +150 | °C |

Electrical Characteristics (at Ta=25°C unless otherwise noted)

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|-----------------------|--|-----------------|-----|-----|-------------|------|
| Forward voltage | I _F =100mA I _F =200mA | V _F | | | 1.0 1.25 | V |
| Reverse current | V _R =200V | I _R | | | 0.1 | μA |
| Junction capacitance | V _R =0V, f=1MHz | C _j | | | 5 | pF |
| Reverse recovery time | I _F =I _R =30mA, I _{rr} =0.1*I _R , R _L =100Ω | t _{rr} | | | 50 | ns |

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

Rating and Typical Characteristic Curves (ACDSW21-HF)

Fig.1 - Forward Characteristic

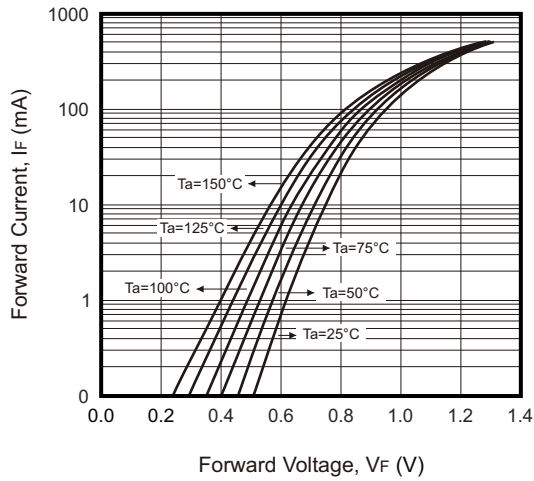


Fig.2 - Reverse Characteristic

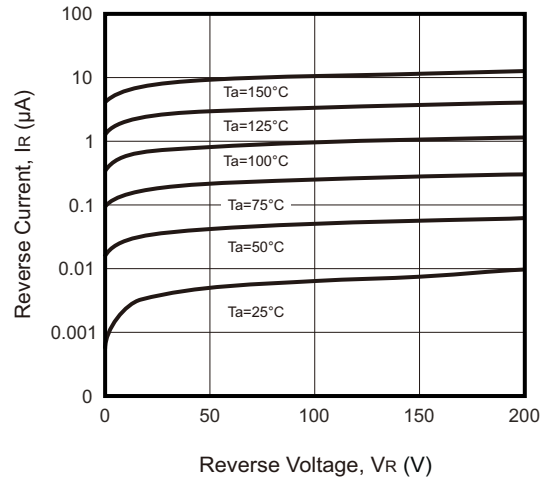


Fig.3 - Capacitance Characteristics

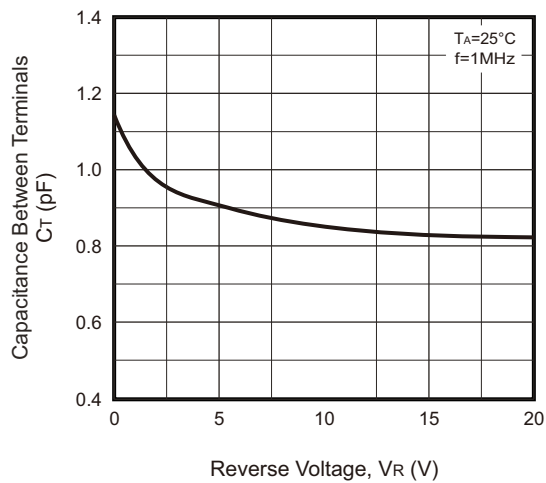
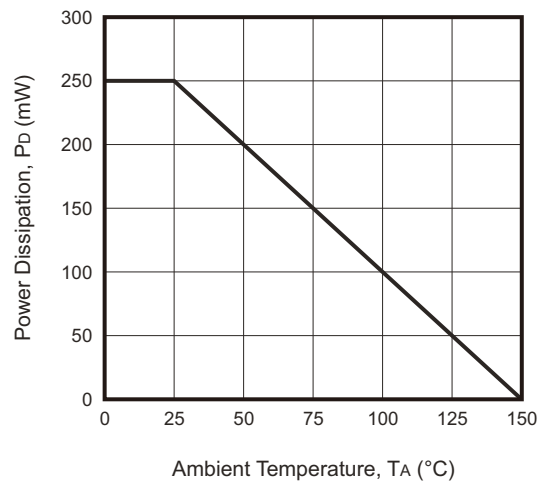
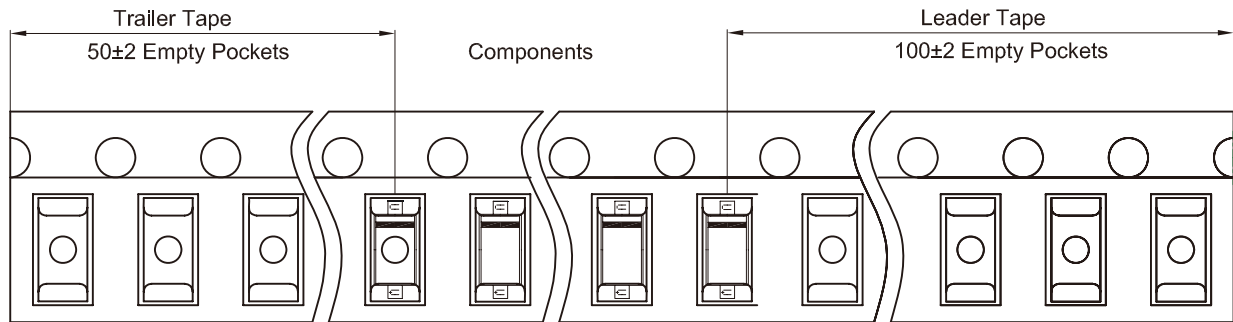
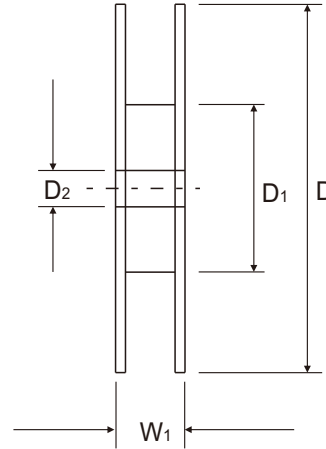
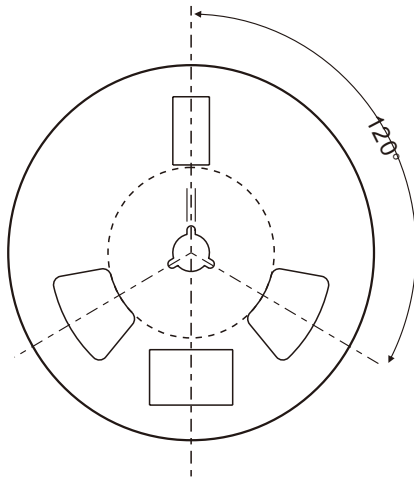
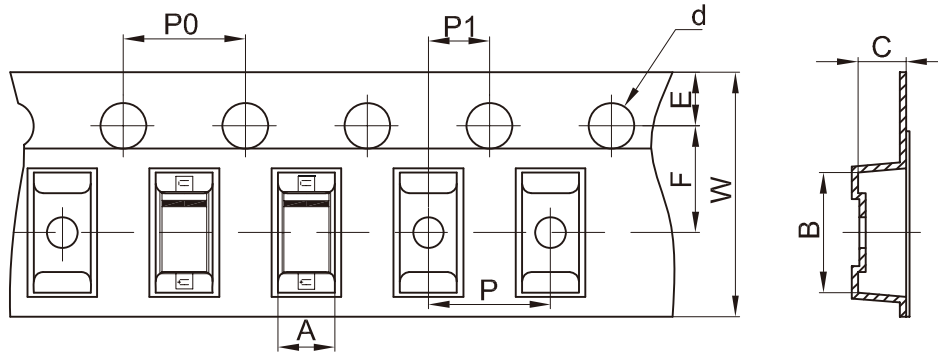


Fig.4 - Power Derating Curve



Reel Taping Specification



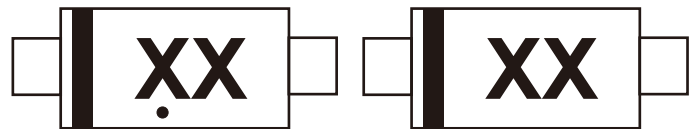
| SOD-123 | SYMBOL | A | B | C | d | D | D1 | D2 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | (mm) | 1.85 ± 0.10 | 3.95 ± 0.10 | 1.57 ± 0.10 | 1.55 ± 0.10 | 178 ± 1.00 | 54.40 ± 0.40 | 13.0 ± 0.20 |
| | (inch) | 0.073 ± 0.004 | 0.155 ± 0.004 | 0.062 ± 0.004 | 0.061 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SOD-123 | SYMBOL | E | F | P | P1 | P0 | W | W1 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 2.00 ± 0.10 | 4.00 ± 0.10 | 8.00 ± 1.00 | 12.30 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.158 ± 0.004 | 0.079 ± 0.004 | 0.158 ± 0.004 | 0.315 ± 0.039 | 0.484 ± 0.039 |

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Marking Code

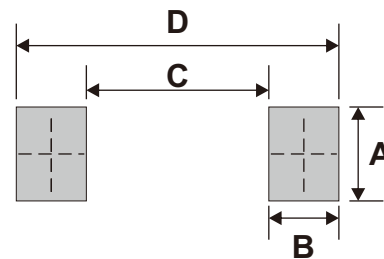
| Part Number | Marking Code |
|-------------|--------------|
| ACDSW21-HF | T3 |



The marking bar indicates the cathode
Solid dot “ • ” = Control Code

Suggested PAD Layout

| SIZE | SOD-123 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 1.22 | 0.048 |
| B | 0.91 | 0.036 |
| C | 2.36 | 0.093 |
| D | 4.19 | 0.165 |



Note: 1.The pad layout is for reference purposes only.

Standard Packaging

| Case Type | REEL PACK | |
|-----------|-----------------|---------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOD-123 | 3,000 | 7 |