

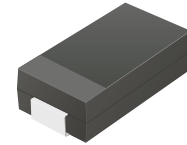
ACGRAS1W-HF

Reverse Voltage: 1600 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

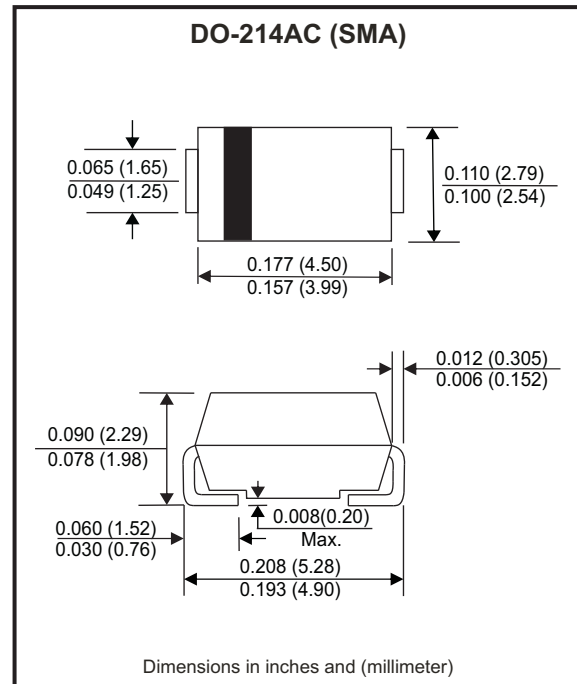


Features

- Glass passivation junction.
- High current capability.
- High surge current capability.
- Low reverse current.
- Comply with AEC-Q101

Mechanical data

- Case: DO-214AC / SMA, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tin finish).
Solderable per MIL-STD-202, Method 208.
- Polarity: Indicated by cathode band.
- Weight: 0.062 grams(approx.).



Circuit diagram



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

| Parameter | Symbol | ACGRAS1W-HF | Units |
|---|-----------------|-------------|--------------|
| Max. repetitive peak reverse voltage | V_{RRM} | 1600 | V |
| Max. DC blocking voltage | V_{DC} | 1600 | V |
| Max. RMS voltage | V_{RMS} | 1120 | V |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 30 | A |
| Max. average forward rectified current | I_F | 1.0 | A |
| Max. instantaneous forward voltage $I_F=1.0A @ 25^\circ C$ | V_F | 1.2 | V |
| Max. DC reverse current at rated | I_R | 5 | μA |
| DC blocking voltage | I_R | 50 | |
| Typical junction capacitance (Note 1) | C_J | 10 | pF |
| Typical thermal resistance | $R_{\theta JC}$ | 70 | $^\circ C/W$ |
| Operating temperature range | T_J | -55 to +150 | $^\circ C$ |
| Storage temperature range | T_{STG} | -55 to +150 | $^\circ C$ |

Notes: 1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC.

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

REV: A

Rating and Characteristic Curves (ACGRAS1W-HF)

Fig.1 - Typical Forward Current Derating Curve

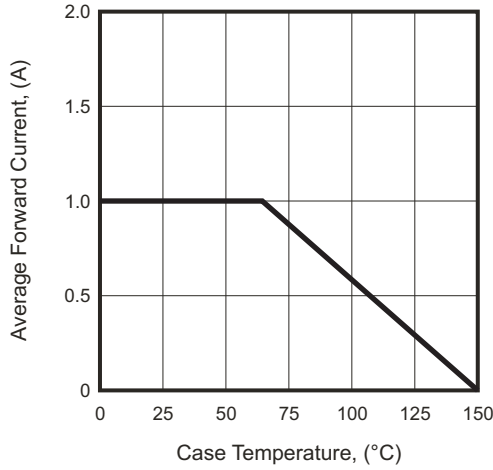


Fig.2 - Typical Forward Characteristics

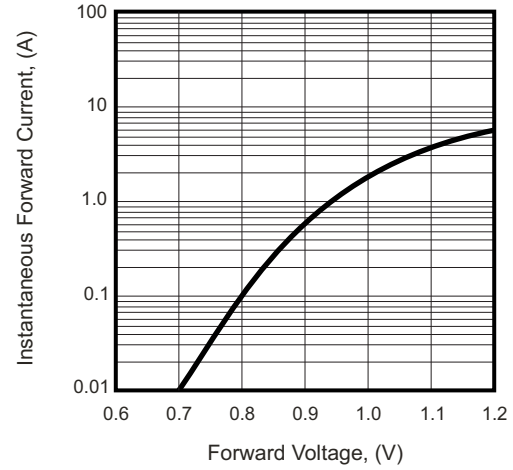


Fig.3 - Maximum Non-repetitive Forward Surge Current

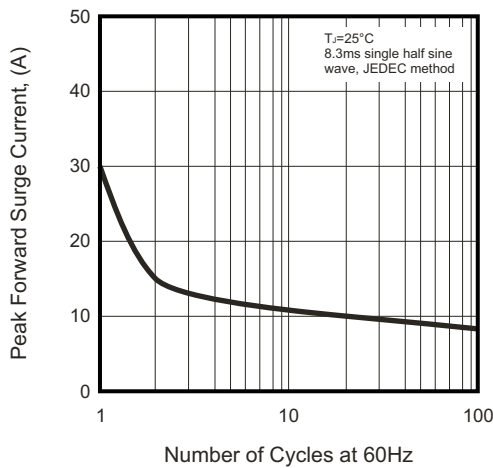


Fig.4 - Typical Reverse Characteristics

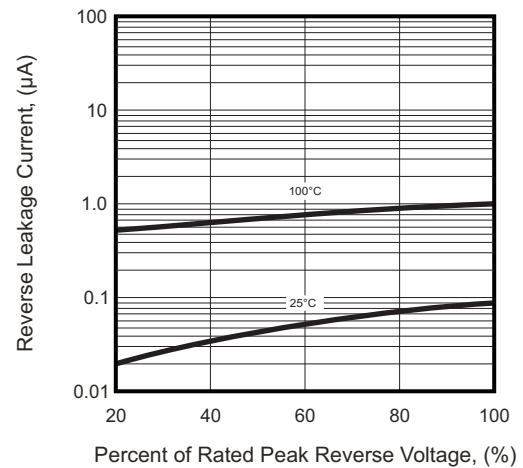
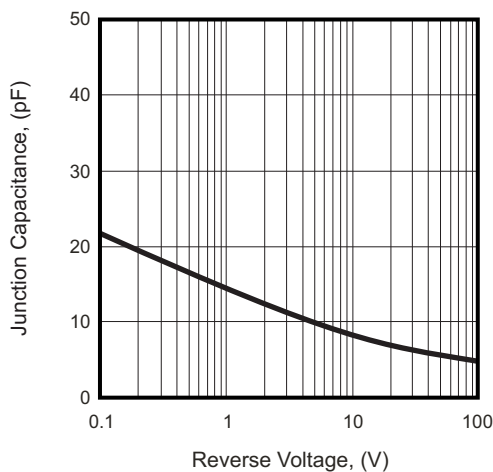


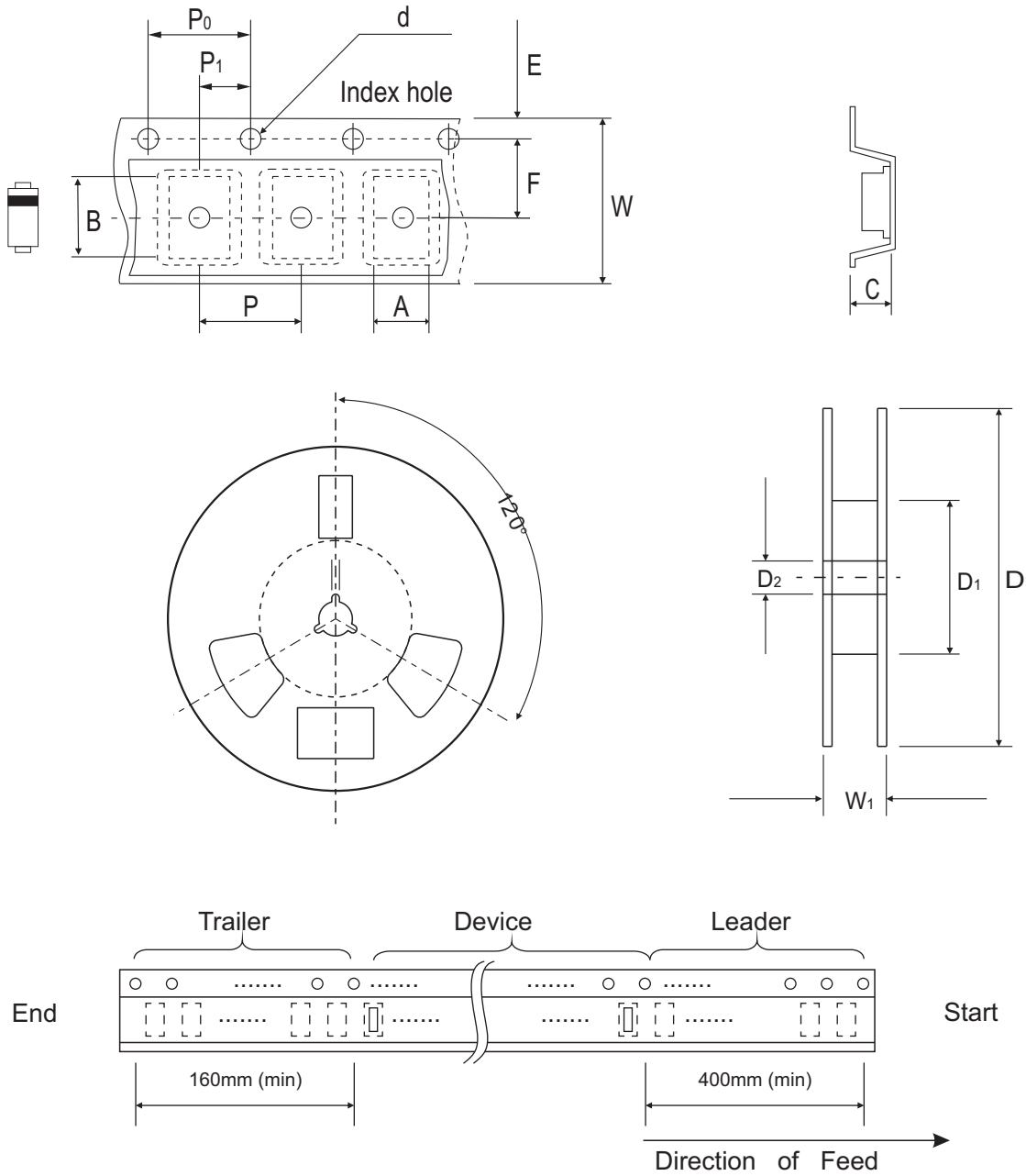
Fig.5 - Typical Junction Capacitance



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Reel Taping Specification



| DO-214AC (SMA) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|----------------|--------|------------|------------|------------|---------------|---------------|----------------|----------------|
| | (mm) | 2.90 MAX. | 5.90 MAX. | 2.66 MAX. | 1.50 ± 0.10 | 330 ± 2.00 | 50 MIN. | 13.50 ± 1.00 |
| | (inch) | 0.114 MAX. | 0.232 MAX. | 0.105 MAX. | 0.059 ± 0.004 | 13.00 ± 0.079 | 1.969 MIN. | 0.531 ± 0.039 |

| DO-214AC (SMA) | SYMBOL | E | F | P | P ₀ | P ₁ | W | W ₁ |
|----------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 5.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 12.00 ± 0.30 | 18.40 MAX. |
| | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.472 ± 0.012 | 0.724 MAX. |

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REV: A

Marking Code

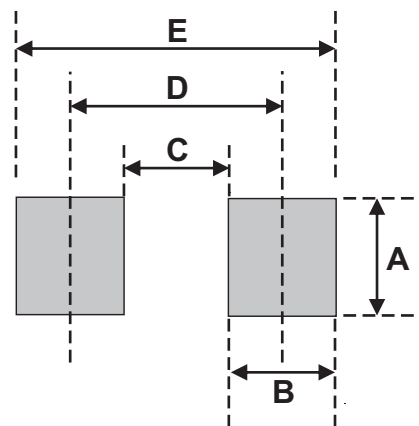
| Part Number | Marking code |
|-------------|--------------|
| ACGRAS1W-HF | S1W |



XXX = Product type marking code

Suggested PAD Layout

| SIZE | DO-214AC (SMA) | |
|------|----------------|--------|
| | (mm) | (inch) |
| A | 1.70 | 0.067 |
| B | 2.50 | 0.098 |
| C | 1.50 | 0.059 |
| D | 4.00 | 0.157 |
| E | 6.50 | 0.256 |



Note:

1. The pad layout is for reference purposes only.

Standard Packaging

| Case Type | REEL PACK | |
|----------------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| DO-214AC (SMA) | 5,000 | 13 |