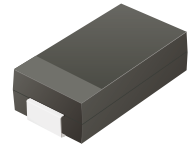


ACGRC501-G Thru. ACGRC507-G

Reverse Voltage: 50 to 1000 Volts

Forward Current: 5.0 Amp

RoHS Device

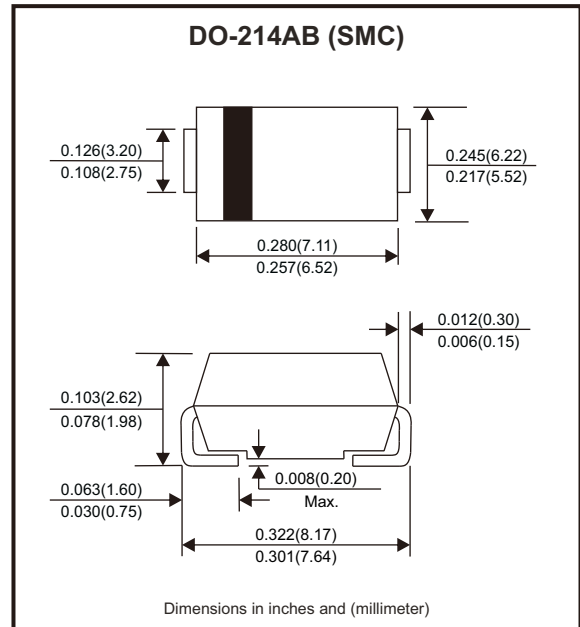


Features

- High current capability.
- High surge current capability.
- Low reverse current.
- AEC-Q101 Qualified

Mechanical data

- Case: DO-214AB / SMC, molded plastic.
- Epoxy: UL flammability classification rating 94V-0.
- Terminals: Lead free plating (Tin finish)
solderable per MIL-STD-202, method 208.
- Polarity: Cathode band.



Circuit Diagram



Maximum Ratings and Electrical Characteristics (T_A=25°C unless otherwise noted)

| Parameter | Symbol | ACGRC 501-G | ACGRC 502-G | ACGRC 503-G | ACGRC 504-G | ACGRC 505-G | ACGRC 506-G | ACGRC 507-G | Units |
|--|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| Max. repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Max. DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Max. RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Max. average forward rectified current | I _F | 5 | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 125 | | | | | | | A |
| Max. instantaneous forward voltage I _F =5A @25°C | V _F | 1.15 | | | | | | | V |
| Max. DC reverse current @ T _A =25°C at rated DC blocking voltage @ T _A =100°C | I _R | 5 100 | | | | | | | μA |
| Typical junction capacitance (Note 1) | C _j | 25 | | | | | | | pF |
| Typical thermal resistance (Note 2) | R _{θJC} | 10 | | | | | | | °C/W |
| Operating temperature range | T _J | -55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | -55 to +150 | | | | | | | °C |

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

2. The heat sink are dimensioned as 20 x 70mm we clip the terminal of device by al pair of heat sink.(total 2pc)

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

REV:A

Rating and Characteristic Curves (ACGRC501-G thru. ACGRC507-G)

Fig.1 - Typical Forward Current Derating Curve

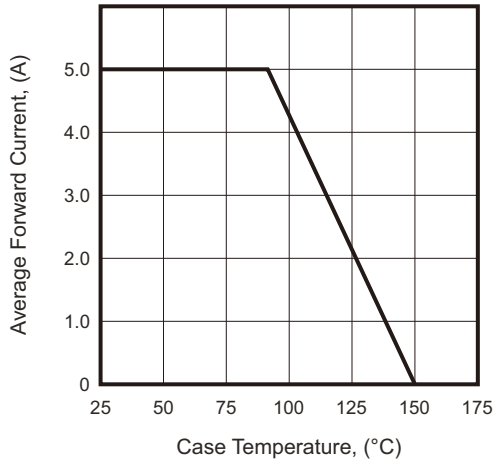


Fig.2 - Typical Forward Characteristics

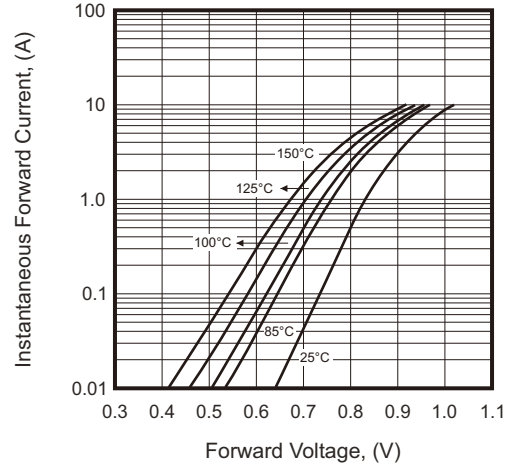


Fig.3 - Maximum Non-Repetitive Forward Surge Current

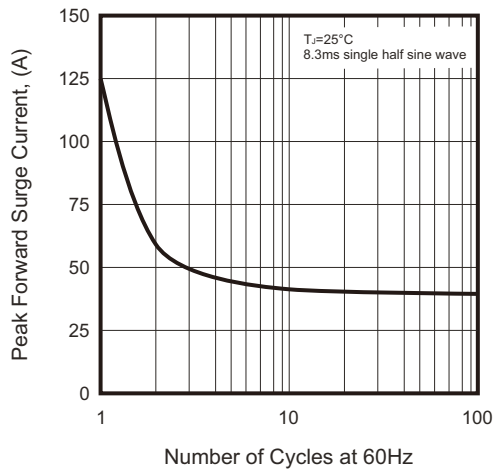


Fig.4 - Typical Reverse Characteristics

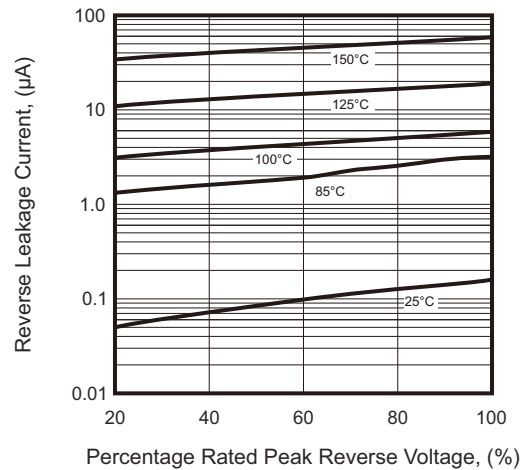
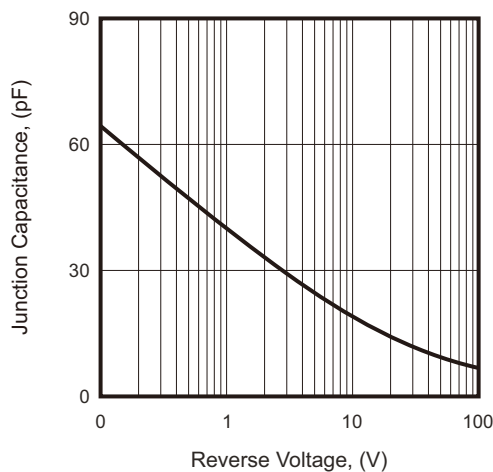
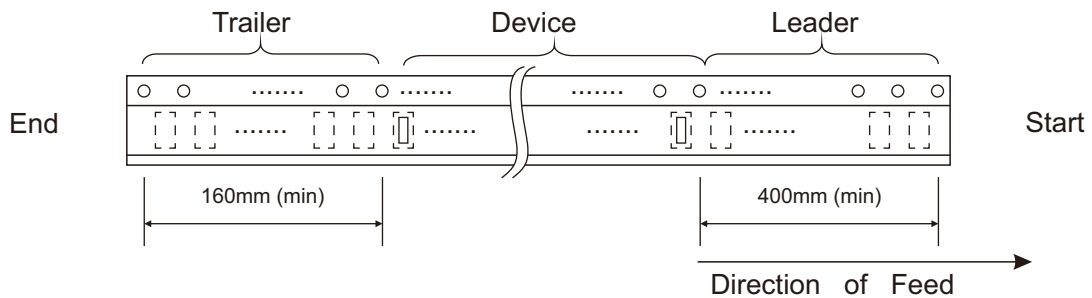
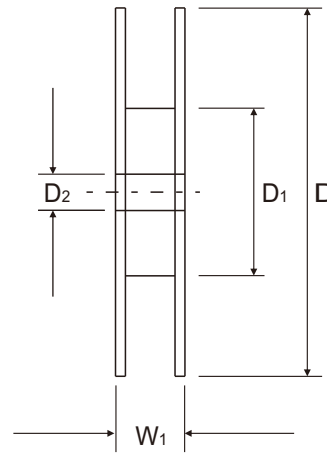
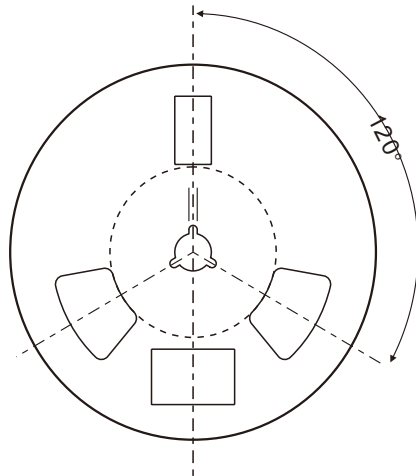
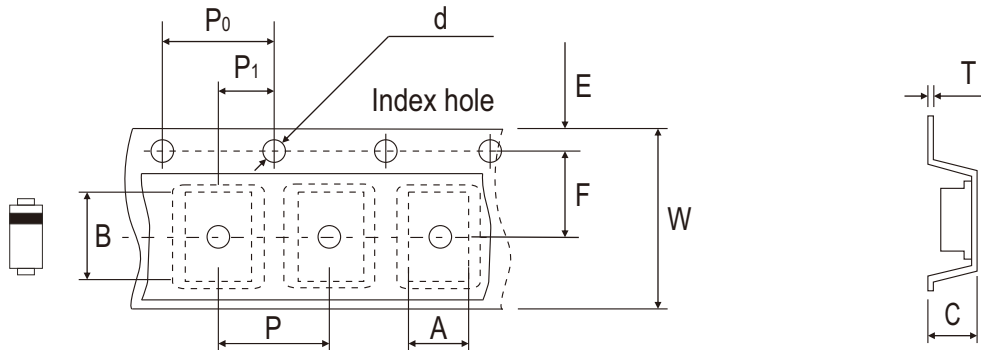


Fig.5 - Typical Junction Capacitance



Reel Taping Specification



| DO-214AB (SMC) | SYMBOL | A | B | C | d | D | D1 | D2 |
|-------------------|--------|------------|------------|------------|---------------|----------------|------------|---------------|
| | (mm) | 6.30 MAX. | 8.60 MAX. | 2.90 MAX. | 1.50 ± 0.10 | 330 ± 2.00 | 50 MIN. | 13.50 ± 1.00 |
| | (inch) | 0.248 MAX. | 0.339 MAX. | 0.114 MAX. | 0.059 ± 0.004 | 12.992 ± 0.079 | 1.969 MIN. | 0.531 ± 0.039 |

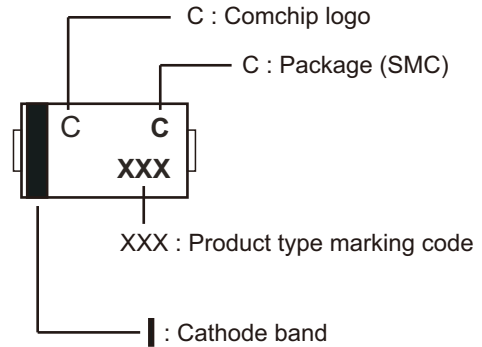
| DO-214AB (SMC) | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|------------|---------------|------------|
| | (mm) | 1.75 ± 0.10 | 7.50 ± 0.10 | 8.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 0.6 MAX. | 16.00 ± 0.30 | 22.40 MAX. |
| | (inch) | 0.069 ± 0.004 | 0.295 ± 0.004 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.024 MAX. | 0.630 ± 0.012 | 0.882 MAX. |

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REV:A

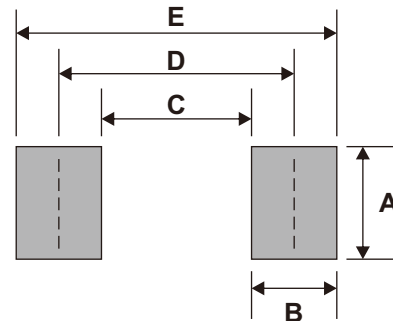
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| ACGRC501-G | 501 |
| ACGRC502-G | 502 |
| ACGRC503-G | 503 |
| ACGRC504-G | 504 |
| ACGRC505-G | 505 |
| ACGRC506-G | 506 |
| ACGRC507-G | 507 |



Suggested PAD Layout

| SIZE | DO-214AB (SMC) | |
|------|----------------|--------|
| | (mm) | (inch) |
| A | 3.30 | 0.130 |
| B | 2.50 | 0.098 |
| C | 4.40 | 0.173 |
| D | 6.80 | 0.268 |
| E | 9.40 | 0.370 |



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

Standard Packaging

| Case Type | REEL PACK | |
|----------------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| DO-214AB (SMC) | 3,000 | 13 |