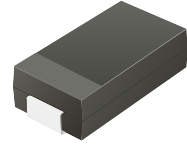


## ACGRC501-G Thru. ACGRC507-G

Reverse Voltage: 50 to 1000 Volts

Forward Current: 5.0 Amp

RoHS Device

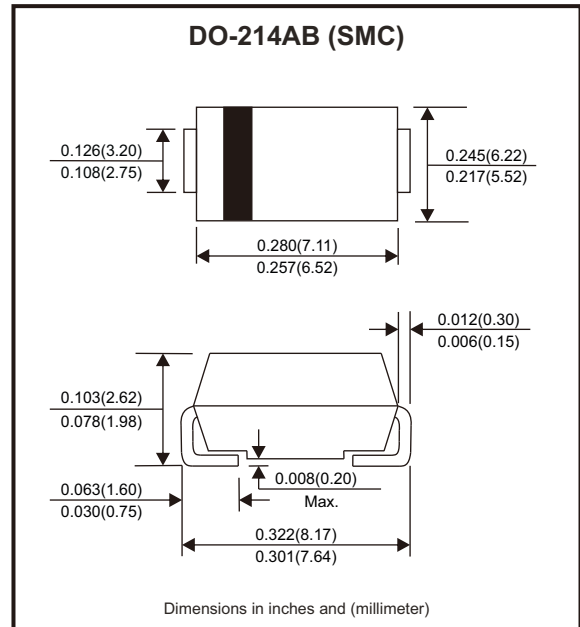


### Features

- 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 (TA=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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Max. DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Max. RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Max. average forward rectified current	I <sub>F</sub>	5							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	125							A
Max. instantaneous forward voltage I <sub>F</sub> =5A @25°C	V <sub>F</sub>	1.15							V
Max. DC reverse current @ TA=25°C at rated DC blocking voltage @TA=100°C	I <sub>R</sub>	5 100							μA
Typical junction capacitance (Note 1)	C <sub>j</sub>	25							pF
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	10							°C/W
Operating temperature range	T <sub>J</sub>	-55 to +150							°C
Storage temperature range	T <sub>STG</sub>	-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

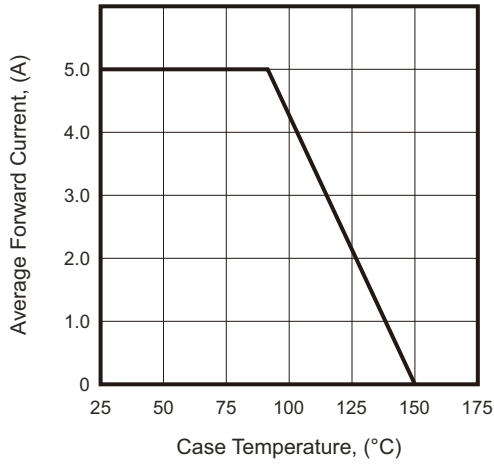


Fig.2 - Typical Forward Characteristics

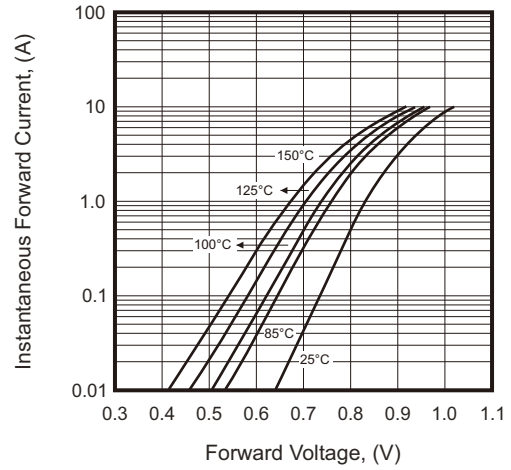


Fig.3 - Maximum Non-Repetitive Forward Surge Current

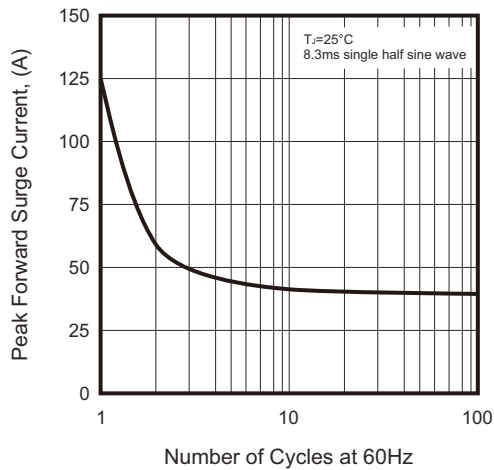


Fig.4 - Typical Reverse Characteristics

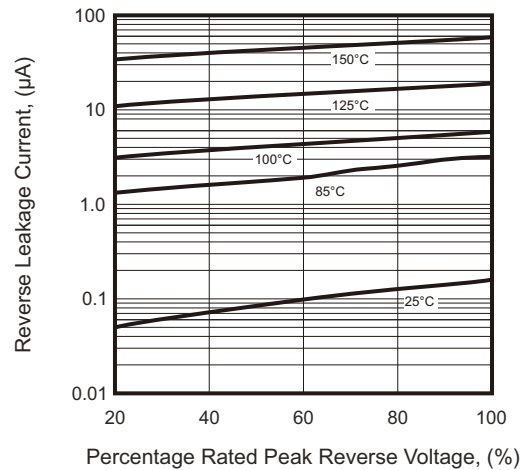
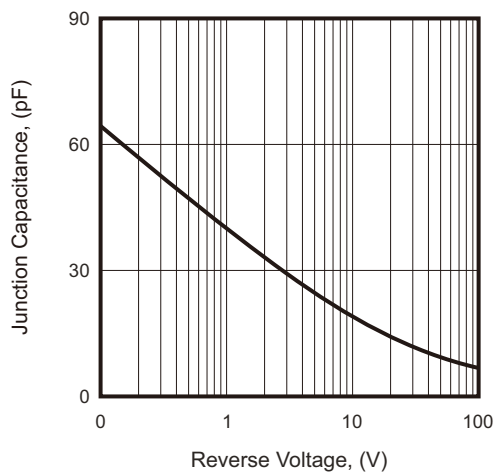
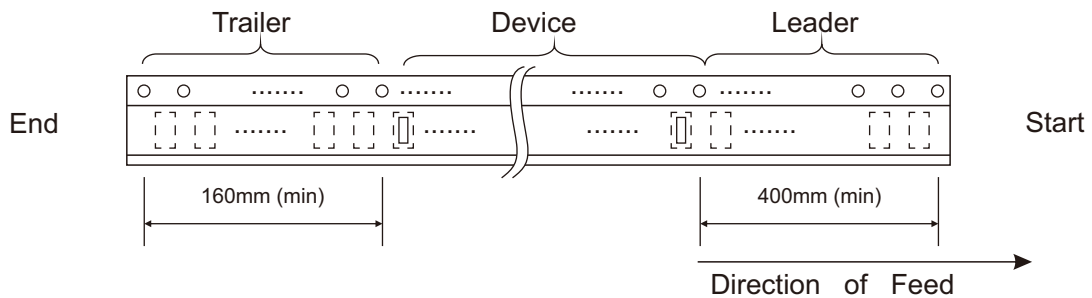
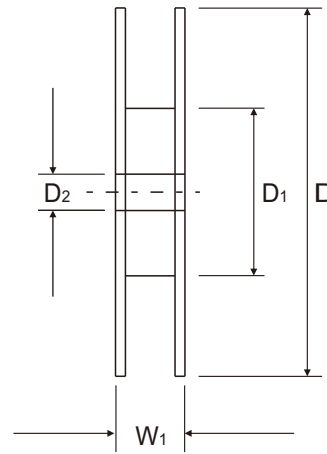
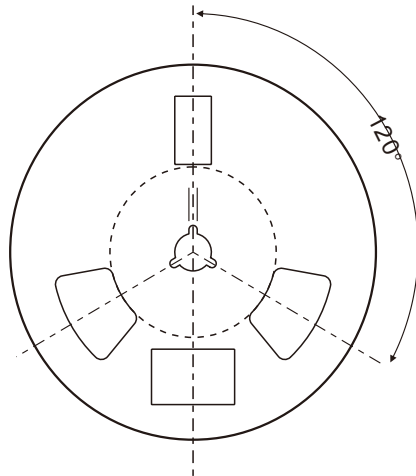
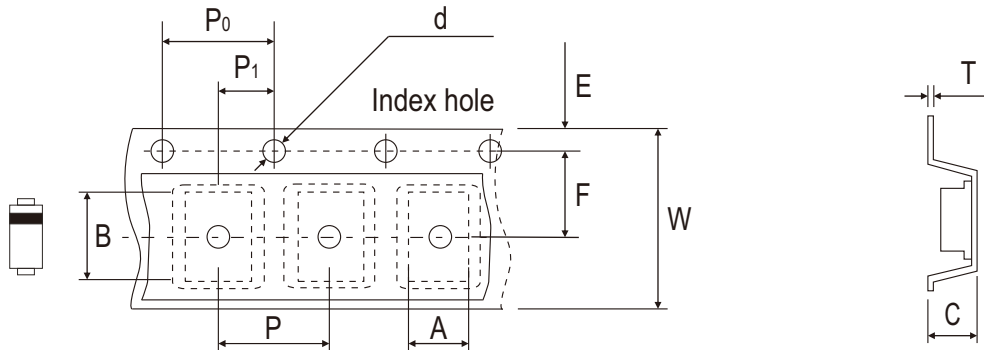


Fig.5 - Typical Junction Capacitance



## 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

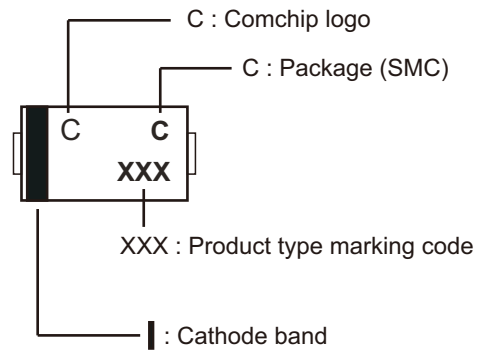
DO-214AB (SMC)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.6 MAX.	16.00 ± 0.30	22.40 MAX.
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.024 MAX.	0.630 ± 0.012	0.882 MAX.

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

REV:A

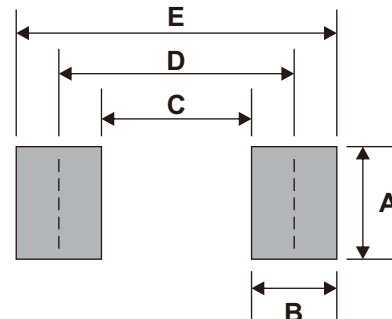
## Marking Code

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