

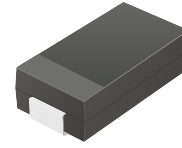
ACGRC301-HF Thru. ACGRC307-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free

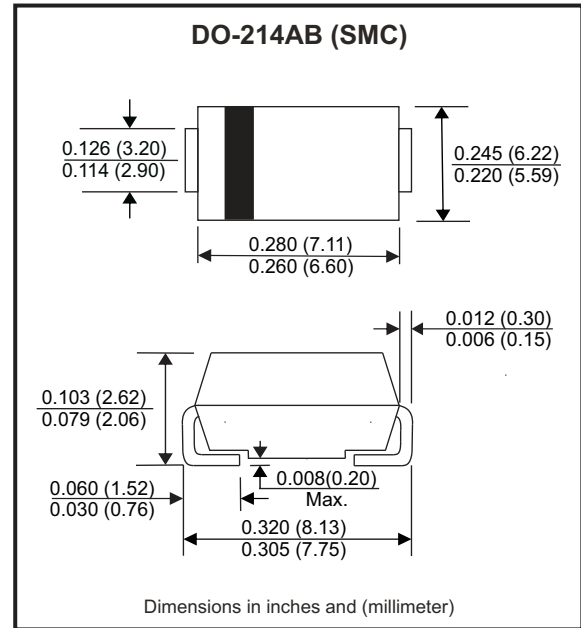


Features

- Glass Passivation Junction.
- High current capability.
- High surge current capability.
- Low reverse current.
- Comply with AEC-Q101

Mechanical data

- Case: DO-214AB / SMC, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tin finish).
Solderable per MIL-STD-202, Method 208.
- Polarity: Cathode band.
- Weight: 0.231 grams(approx.).



Circuit diagram



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

Parameter	Symbol	ACGRC 301-HF	ACGRC 302-HF	ACGRC 303-HF	ACGRC 304-HF	ACGRC 305-HF	ACGRC 306-HF	ACGRC 307-HF	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	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100							A	
Max. average forward rectified current	I _F	3.0							A	
Max. instantaneous forward voltage I _F =3.0A @ 25°C	V _F	1.15							V	
Max. DC reverse current at rated	I _R	T _A =25°C	5							μA
DC blocking voltage		T _A =100°C	50							
Typical junction capacitance (Note 1)	C _J	20							pF	
Typical thermal resistance	R _{θJC}	20							°C/W	
Operating temperature range	T _J	-55 to +150							°C	
Storage temperature range	T _{STG}	-55 to +150							°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: B

RATING AND CHARACTERISTIC CURVES (ACGRC301-HF Thru. ACGRC307-HF)

Fig.1 - Typical Forward Current Derating Curve

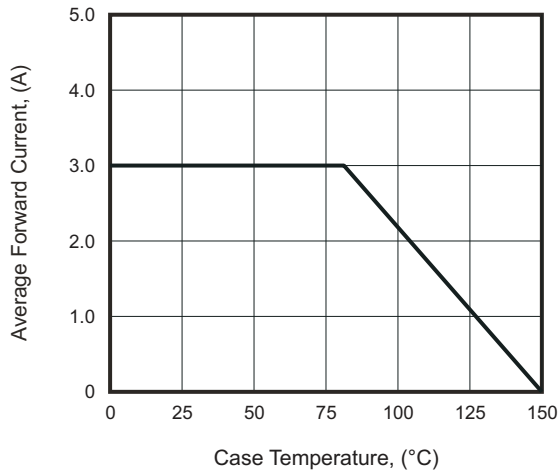


Fig.2 - Typical Forward Characteristics

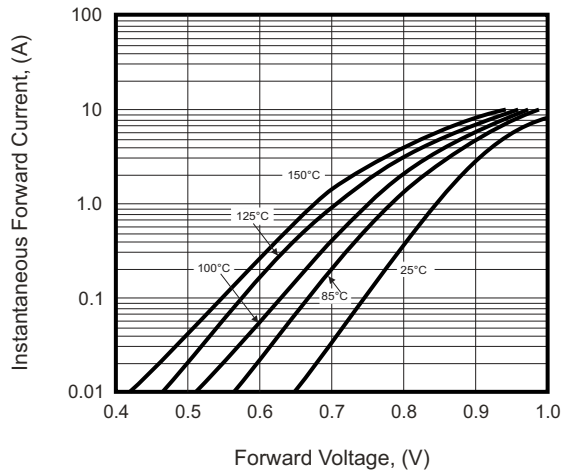


Fig.3 - Maximum Non-Repetitive Forward Surge Current

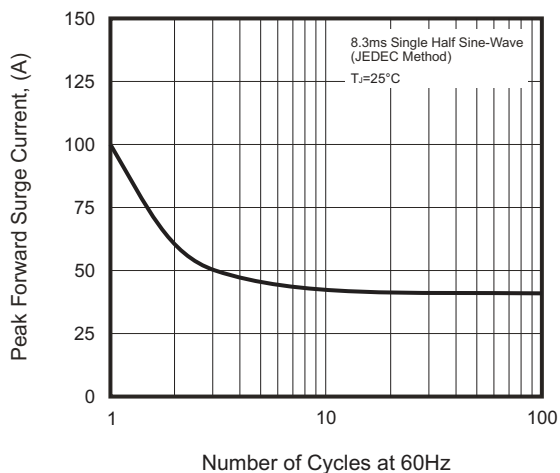


Fig.4 - Typical Reverse Characteristics

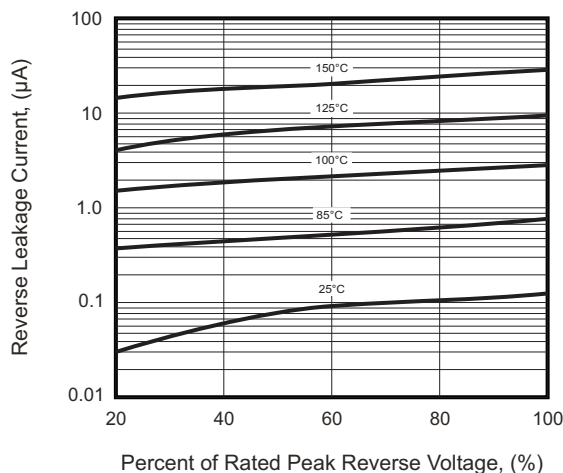
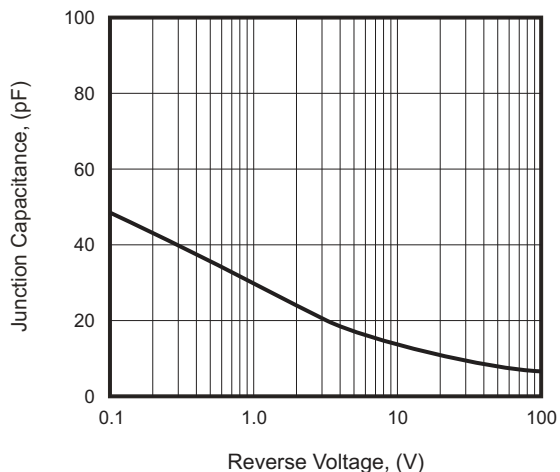


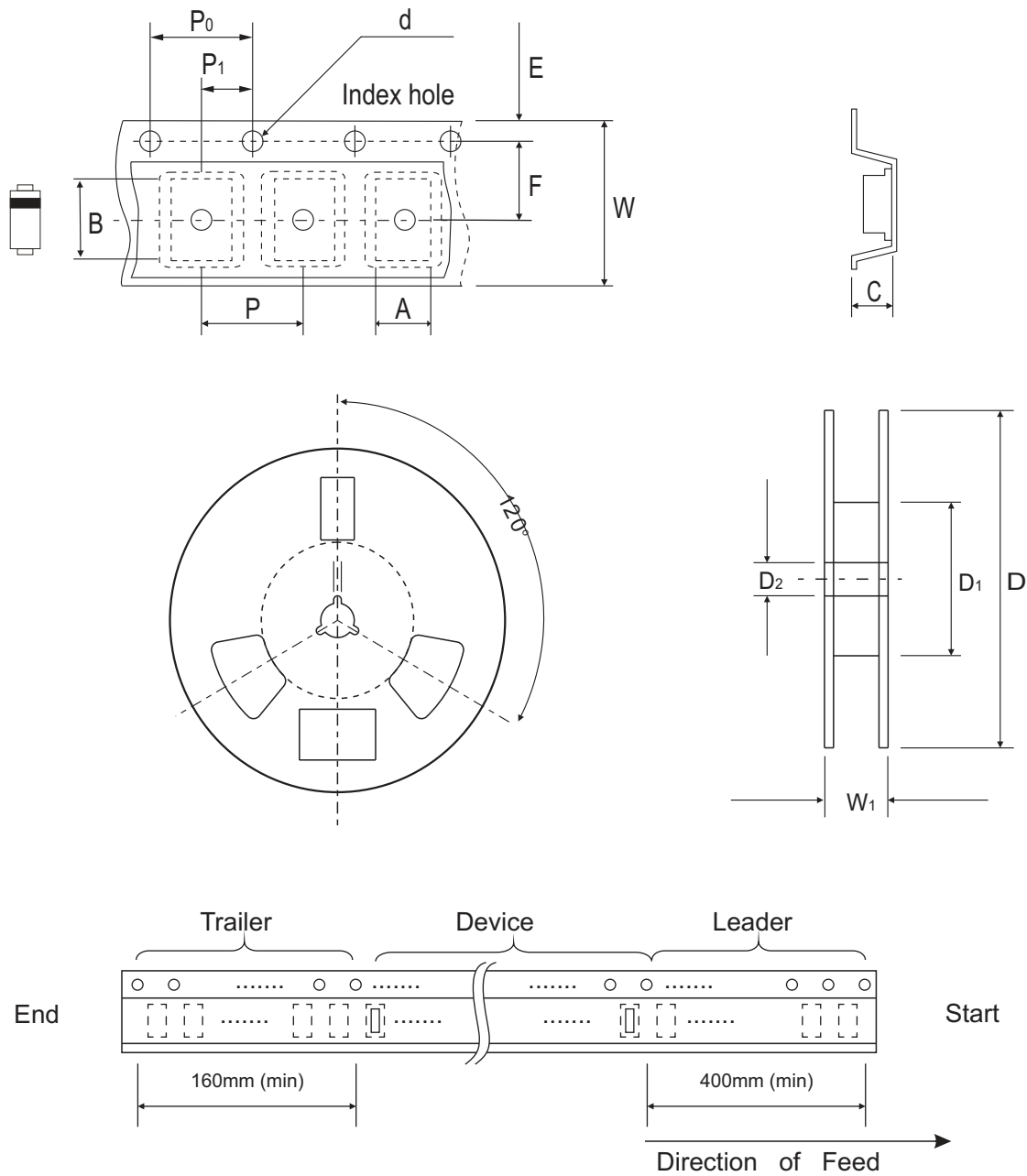
Fig.5 - Typical Junction Capacitance



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Reel Taping Specification



DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(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	13.00 ± 0.079	1.969 MIN.	0.531 ± 0.039

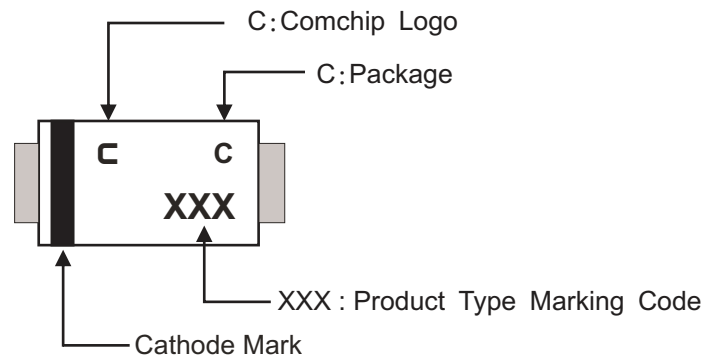
DO-214AB (SMC)	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	7.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	16.00 ± 0.30	22.40 MAX.
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.630 ± 0.012	0.882 MAX.

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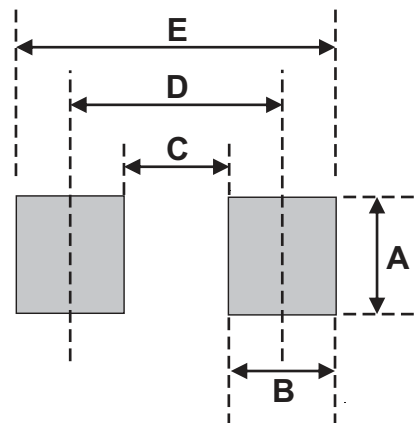
Marking Code

Part Number	Marking code
ACGRC301-HF	301
ACGRC302-HF	302
ACGRC303-HF	303
ACGRC304-HF	304
ACGRC305-HF	305
ACGRC306-HF	306
ACGRC307-HF	307



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