

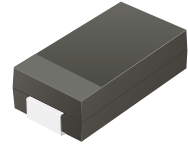
ACGRB301-HF Thru. ACGRB307-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3.0 Amp

RoHS Device

Halogen Free



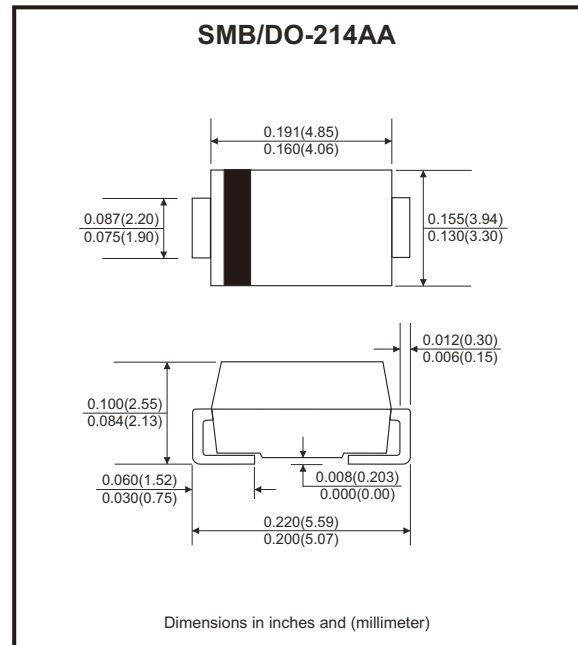
Features

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

Mechanical data

- Case: DO-214AA / SMB, molded plastic.
- Epoxy: UL flammability classification rate 94V-0.
- Terminals: Lead free plating (Tin finish)
Solderable per MIL-STD-202, method 208.
- Polarity: Color band denotes cathode end.

Circuit Diagram



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

Parameter	Symbol	ACGRB 301-HF	ACGRB 302-HF	ACGRB 303-HF	ACGRB 304-HF	ACGRB 305-HF	ACGRB 306-HF	ACGRB 307-HF	Unit
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 @ T _C =100°C	I _F	3							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	100							A
Max. instantaneous forward voltage I _F =3A @ 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	30							pF
Typical thermal resistance (Note 2)	R _{θJC}	20							°C/W
Operating temperature range	T _J	-55 to +175							°C
Storage temperature range	T _{STG}	-55 to +175							°C

Notes: 1. Measured at 1MHz and applied reverse voltage of 4V DC.

2. Device mounted on FR-4 substrate, 0.4 " * 0.5", 2 oz, single-side, Pc boards with 0.2 " * 0.25" copper pad.

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

REV:A

Rating and Characteristic Curves (ACGRB301-HF Thru. ACGRB307-HF)

Fig.1 - Typical Forward Current Derating Curve

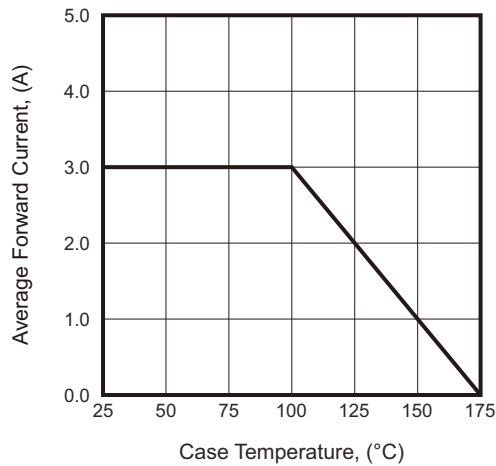


Fig.2 - Typical Forward Characteristics

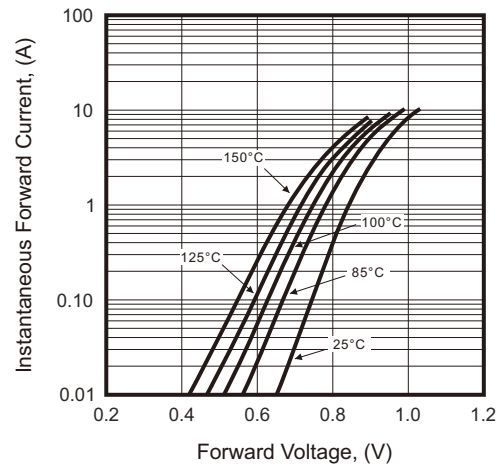


Fig.3 - Maximum Non-Repetitive Forward Surge Current

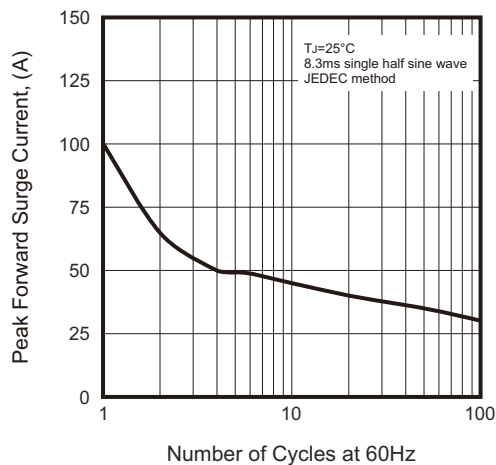


Fig.4 - Typical Reverse Characteristics

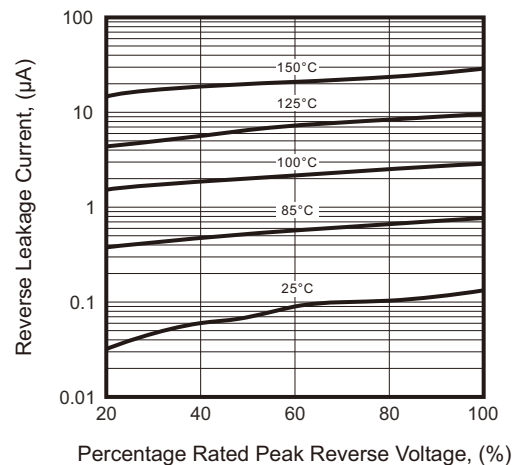
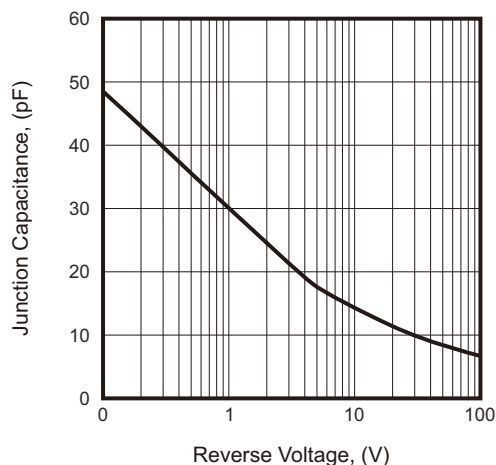
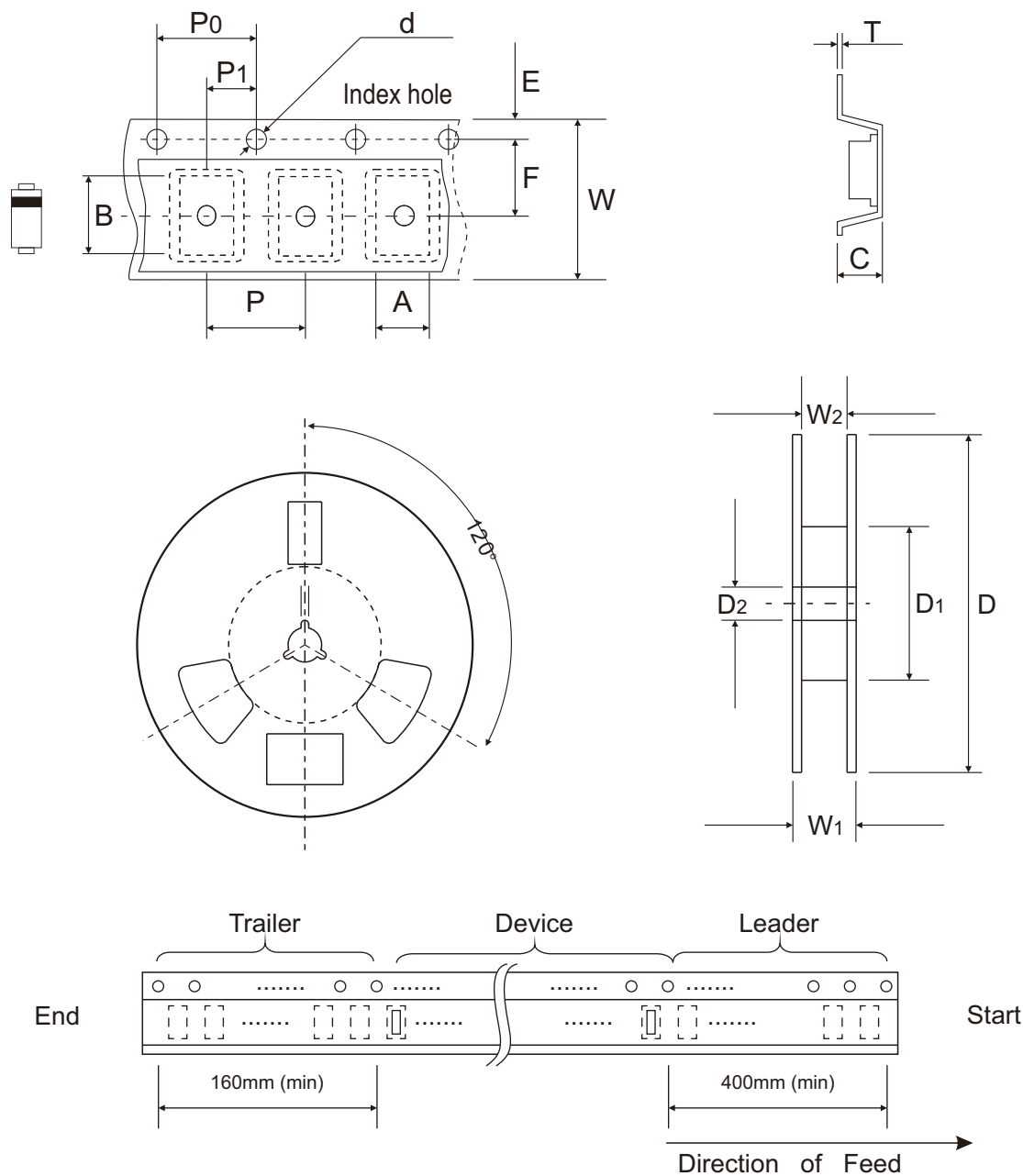


Fig.5 - Typical Junction Capacitance



Reel Taping Specification

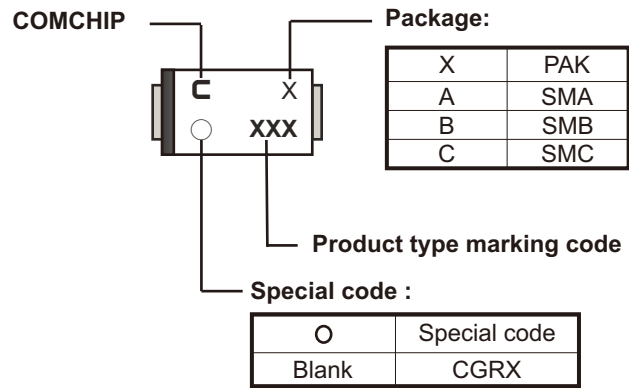


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	4.00 Max.	5.90 Max.	3.00 Max.	1.50 ± 0.10	330.00 ± 2.00	50.00 Min.	13.50 ± 1.00	1.75 ± 0.10
	(inch)	0.157 Max.	0.232 Max.	0.118 Max.	0.059 ± 0.004	12.992 ± 0.079	1.969 Min.	0.531 ± 0.039	0.069 ± 0.004

DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.60 Max.	12.00 ± 0.30	18.40 Max.	14.40 Max.
	(inch)	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.024 Max.	0.472 ± 0.012	0.724 Max.	0.567 Max.

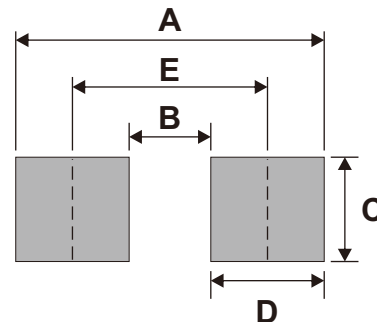
Marking Code

Part Number	Marking Code
ACGRB301-HF	301
ACGRB302-HF	302
ACGRB303-HF	303
ACGRB304-HF	304
ACGRB305-HF	305
ACGRB306-HF	306
ACGRB307-HF	307



Suggested PAD Layout

SIZE	DO-214AA(SMB)	
	(mm)	(inch)
A	6.80	0.268
B	1.80	0.071
C	2.30	0.091
D	2.50	0.098
E	4.30	0.169



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AA (SMB)	3,000	13