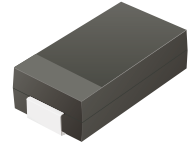


CFRC301-G Thru. CFRC307-G

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3.0 Amp

RoHS Device

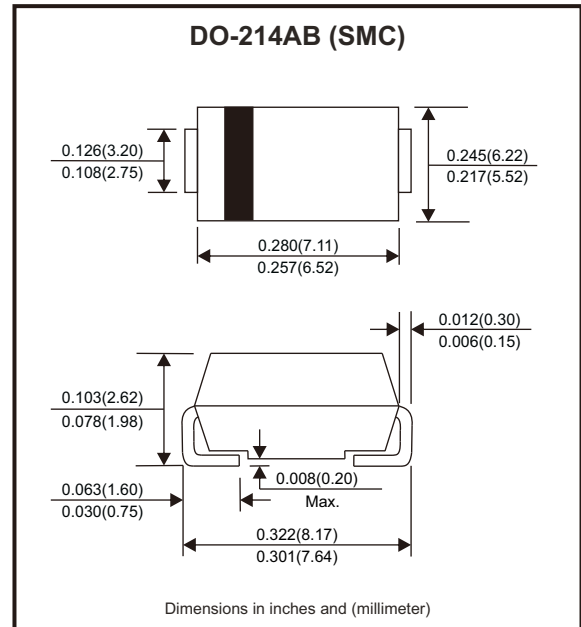


Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Fast recovery time: 150~500nS.
- Low leakage current.

Mechanical data

- Case: JEDEC DO-214AB, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Weight: 0.21 grams approx.



Circuit Diagram



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

Parameter	Symbol	CFRC 301-G	CFRC 302-G	CFRC 303-G	CFRC 304-G	CFRC 305-G	CFRC 306-G	CFRC 307-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
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}	80							A
Max. average forward current	I _O	3.0							A
Max. instantaneous forward voltage at 3.0A	V _F	1.3							V
Reverse recovery time	t _{rr}	150				250	500		nS
Max. DC reverse current at T _A =25°C rated DC blocking voltage T _A =100°C	I _R	10 100							μA
Typical thermal resistance (Note 1)	R _{θJA}	50							°C/W
Max. operating junction temperature	T _J	150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Notes: 1. Thermal resistance from junction to lead mounted on P.C.B. with 8.0×8.0 mm square land area.

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

REV:B

Rating and Characteristic Curves (CFRC301-G thru. CFRC307-G)

Fig.1 - Reverse Characteristics

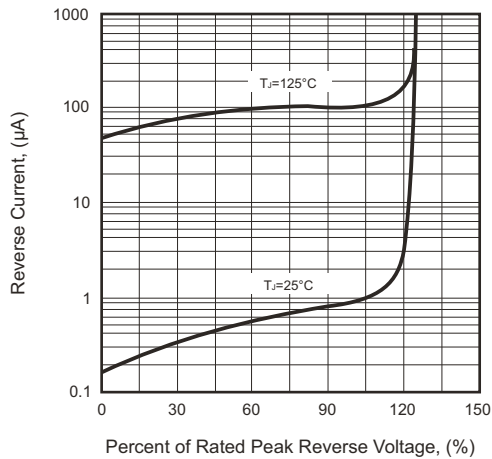


Fig.2 - Forward Characteristics

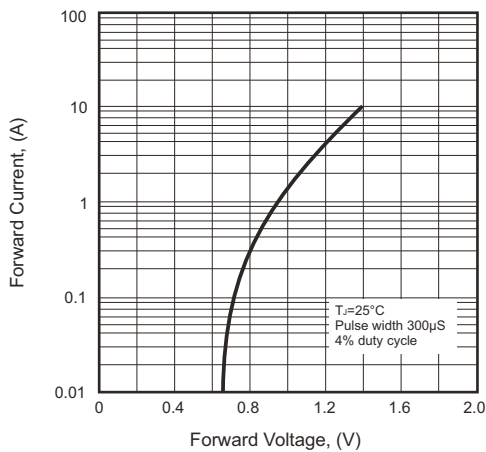


Fig.3 - Junction Capacitance

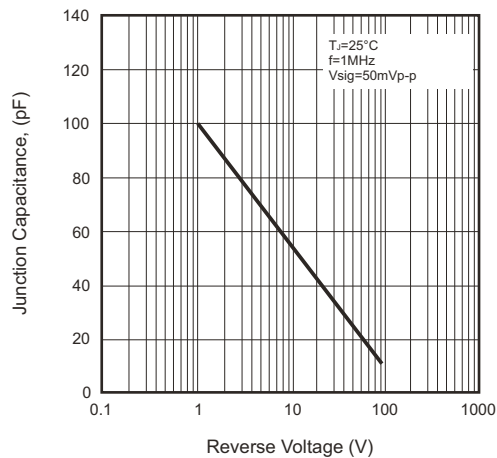


Fig.4 - Non-repetitive Forward Surge Current

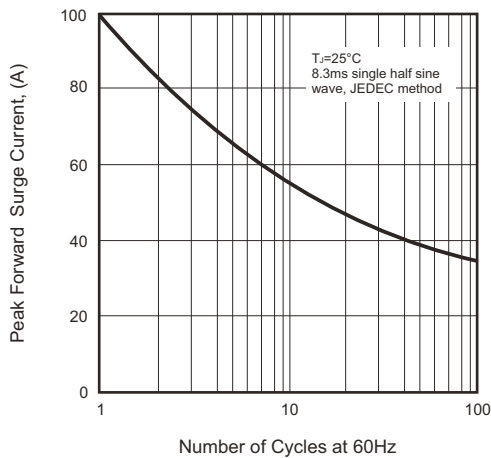


Fig.5 - Test Circuit Diagram and Reverse Recovery Time Characteristics

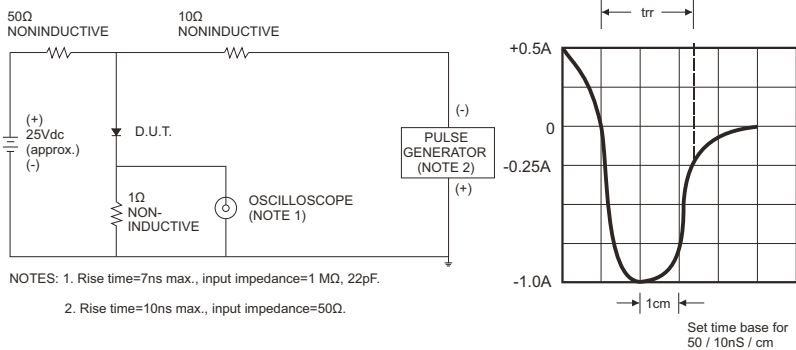
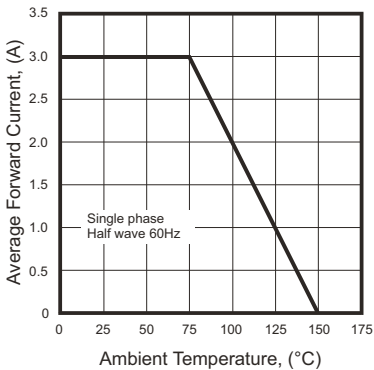
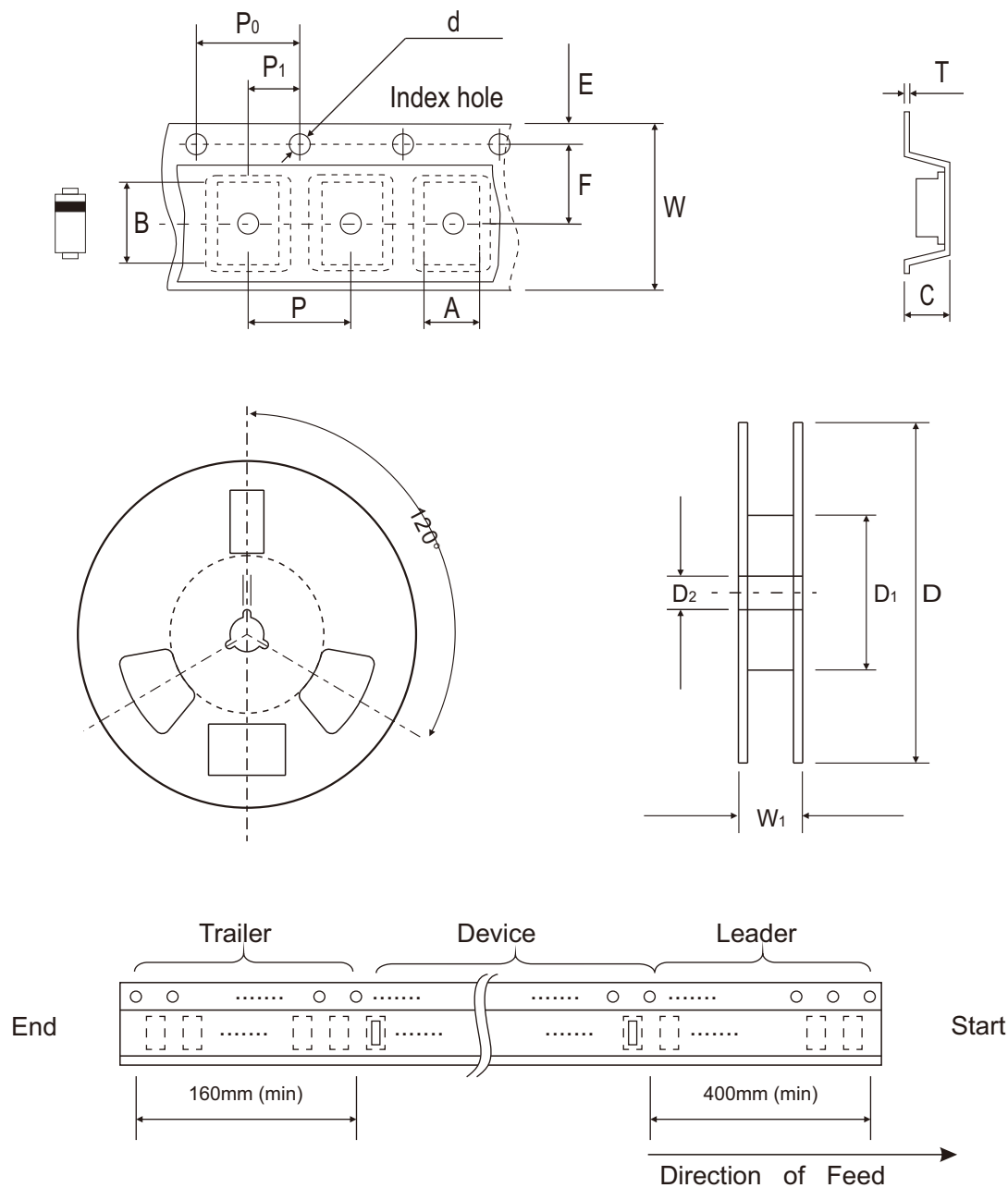


Fig.6 - Current Derating Curve



Reel Taping Specification

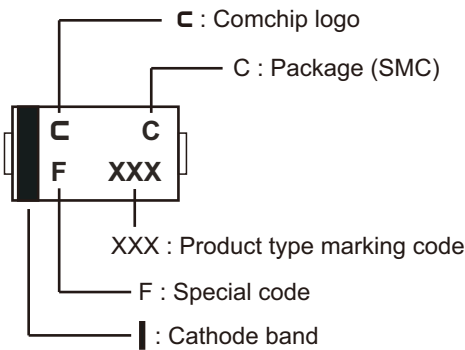


DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.30 MAX.	8.60 MAX.	2.90 MAX.	1.50 ± 0.10	330 ± 2.00	50 MIN.	13.50 ± 1.00
	(inch)	0.248 MAX.	0.339 MAX.	0.114 MAX.	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.531 ± 0.039

DO-214AB (SMC)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(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.

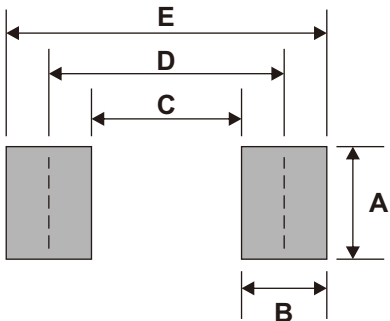
Marking Code

Part Number	Marking Code
CFRC301-G	301
CFRC302-G	302
CFRC303-G	303
CFRC304-G	304
CFRC305-G	305
CFRC306-G	306
CFRC307-G	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