

# SMD Super Fast Recovery Rectifiers

**Comchip**  
SMD Diode Specialist

## CSFC301-G Thru. CSFC305-G

**Reverse Voltage: 50 to 600 Volts**

**Forward Current: 3.0 Amp**

**RoHS Device**

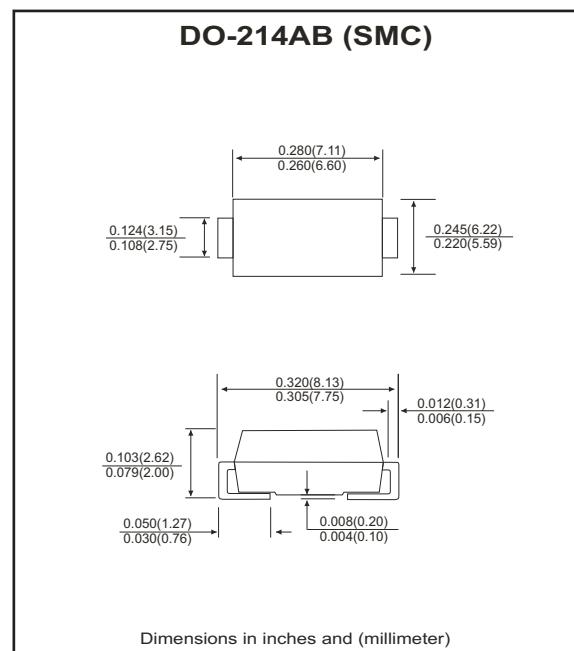


### Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Super fast recovery time 35nS.
- Built-in strain relief.
- Low forward voltage drop.

### Mechanical data

- Case: JEDEC DO-214AC, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.21 grams



### Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CSFC301-G	CSFC302-G	CSFC303-G	CSFC304-G	CSFC305-G	Units
Max. repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Max. DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	V
Max. RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>			100			A
Max. average forward current	I <sub>o</sub>			3.0			A
Max. instantaneous forward voltage at 3.0A	V <sub>F</sub>		0.95		1.25	1.3	V
Reverse recovery time	T <sub>rr</sub>		35		50		nS
Max. DC reverse current at T <sub>A</sub> =25 °C rated DC blocking voltage T <sub>A</sub> =100 °C	I <sub>R</sub>			5.0 250			µA
Max. thermal resistance (Note 1)	R <sub>θJL</sub>			16			°C/W
Max. operating junction temperature	T <sub>J</sub>			150			°C
Storage temperature	T <sub>STG</sub>			-55 to +150			°C

Notes: 1. Thermal resistance from junction to lead mounted on P.C.B. with 8.0×8.0 mm copper<sup>2</sup> pad area.

REV:A

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## RATING AND CHARACTERISTIC CURVES (CSFC301-G thru CSFC305-G)

Fig.1 Reverse Characteristics

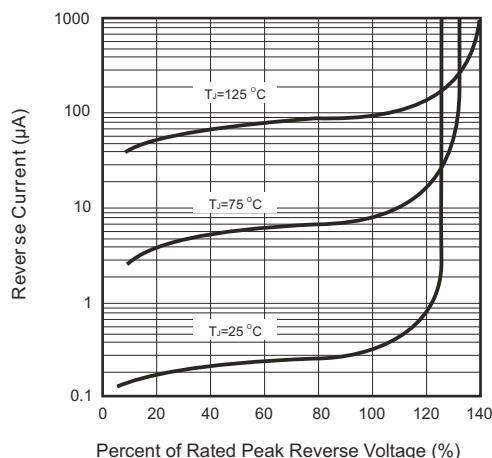


Fig.2 Forward Characteristics

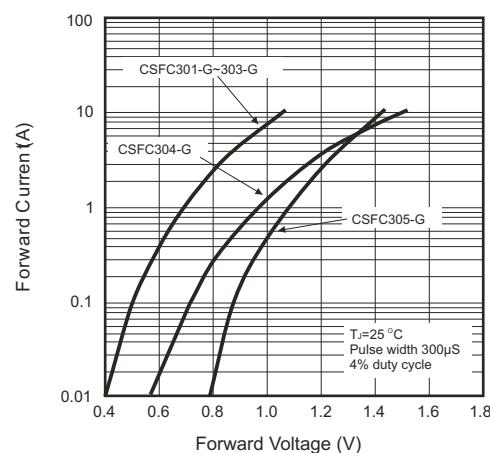


Fig.3 Junction Capacitance

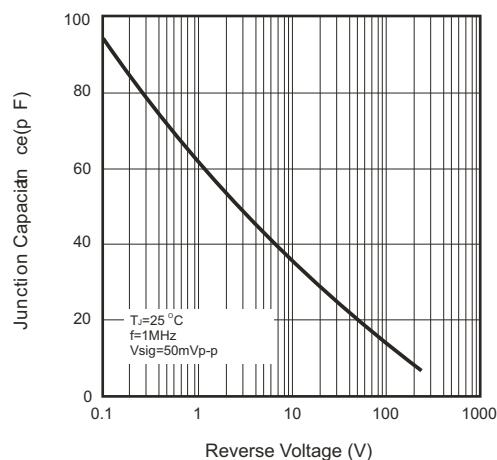


Fig.4 Non-repetitive Forward Surge Current

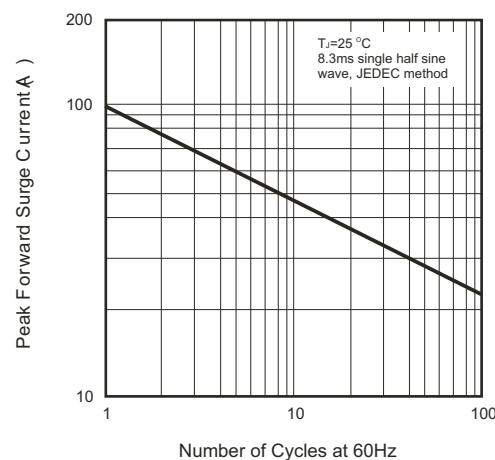


Fig.5 Test Circuit Diagram and Reverse Recovery Time Characteristics

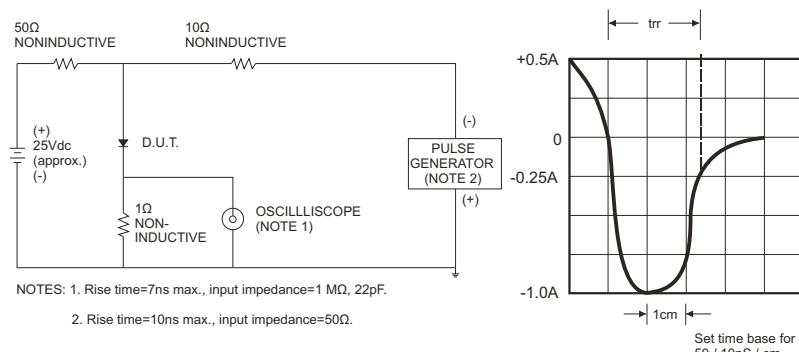


Fig.6 Current Derating Curve

