

SMD Efficient Fast Recovery Rectifier

CFRA101-G Thru CFRA107-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

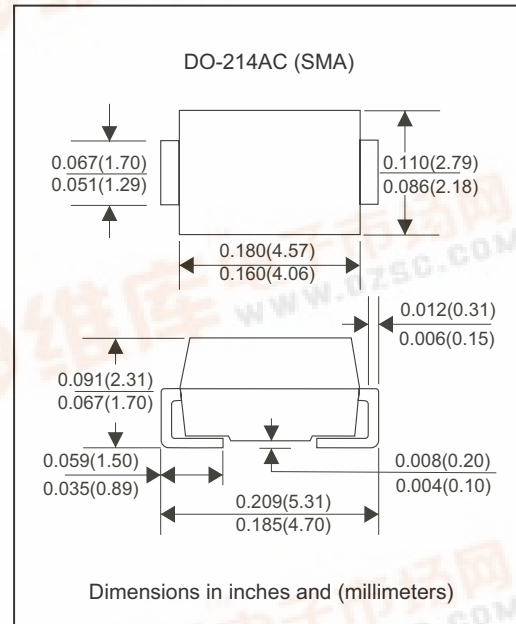
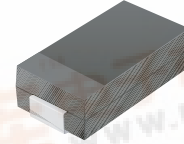
Forward Current: 1.0 Amp

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: SMA/DO-214AC molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Approx. Weight: 0.04 gram



Maximum Ratings and Electrical Characteristics:

Parameter	Symbol	CFRA 101-G	CFRA 102-G	CFRA 103-G	CFRA 104-G	CFRA 105-G	CFRA 106-G	CFRA 107-G	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
Peak Surge Forward Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30							A
Max. Average Forward Current	I_O	1.0							A
Max. Instantaneous Forward Voltage at 1.0A	V_F	1.3							V
Reverse recovery time	T_{rr}	100				250	500		nS
Max. DC Reverse Current at Rated DC Blocking Voltage $T_a=25^{\circ}\text{C}$ $T_a=100^{\circ}\text{C}$	I_R	5.0 50							uA
Max. Thermal Resistance (Note1)	$R_{\theta JL}$	42							$^{\circ}\text{C/W}$
Max. Operating Junction Temperature	T_j	-55 to +155							$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150							$^{\circ}\text{C}$

Note1: Thermal resistance from junction to ambient.

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Rating and Characteristic Curves (CFRA101-G Thru CFRA107-G)

Fig. 1 - Reverse Characteristics

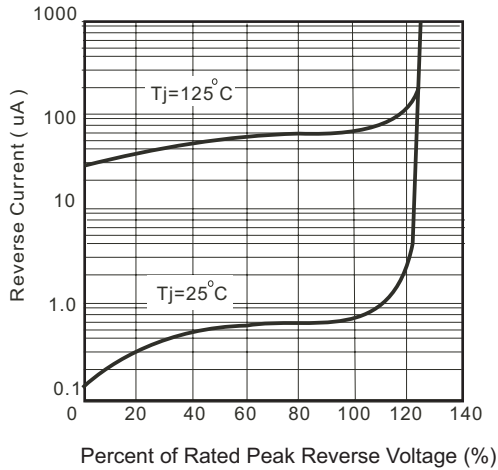


Fig.2 - Forward Characteristics

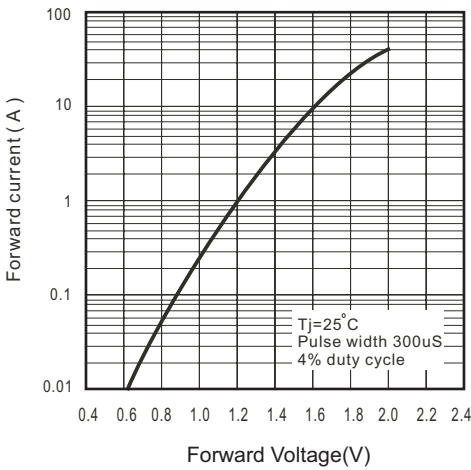


Fig. 3 - Junction Capacitance

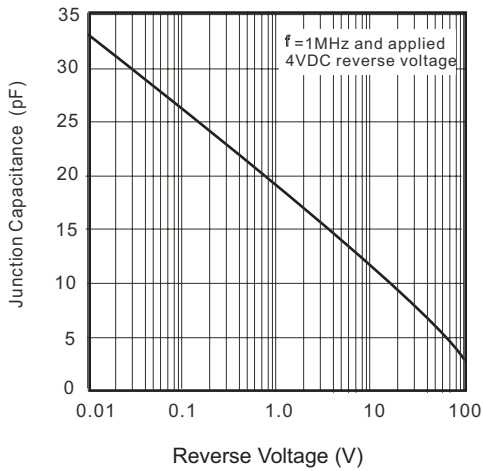


Fig. 4 - Non Repetitive Forward Surge Current

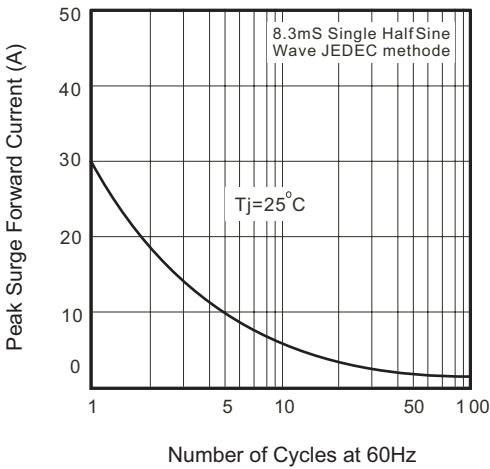
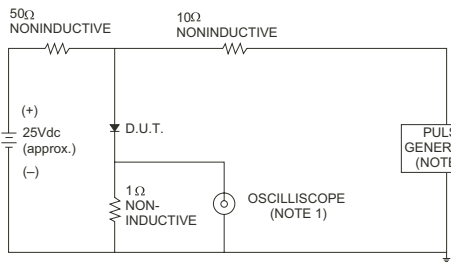


Fig. 5 - Test Circuit Diagram and Reverse Recovery Time Characteristics



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

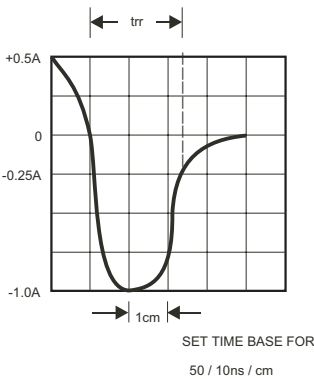


Fig. 6 - Current Derating Curve

