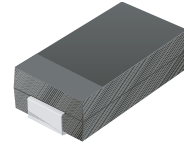


# SMD Efficient Fast Recovery Rectifier

## CFRA101-G Thru CFRA107-G (RoHS Device)

**Reverse Voltage: 50 ~ 1000 Volts**

**Forward Current: 1.0 Amp**

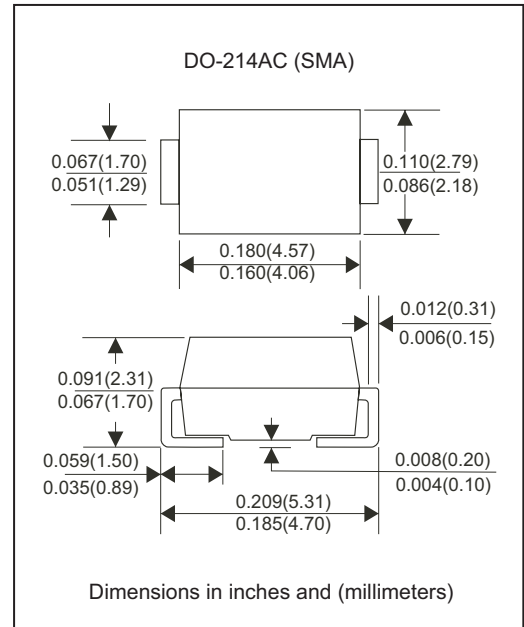


### Features:

- 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 $T_a=25^{\circ}C$ $T_a=100^{\circ}C$	$I_R$	5.0 50							$\mu A$
Max. Thermal Resistance (Note1)	$R_{\theta JL}$	42							$^{\circ}C/W$
Max. Operating Junction Temperature	$T_j$	-55 to +155							$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +150							$^{\circ}C$

Note1: Thermal resistance from junction to ambient.



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

Fig. 1 - Reverse Characteristics

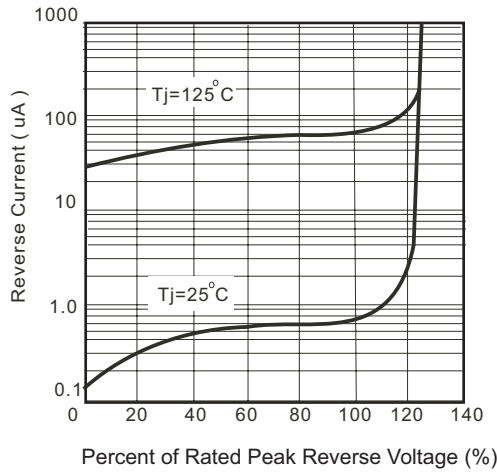


Fig.2 - Forward Characteristics

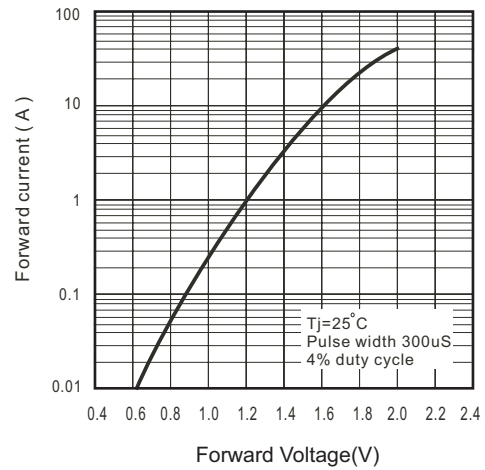


Fig. 3 - Junction Capacitance

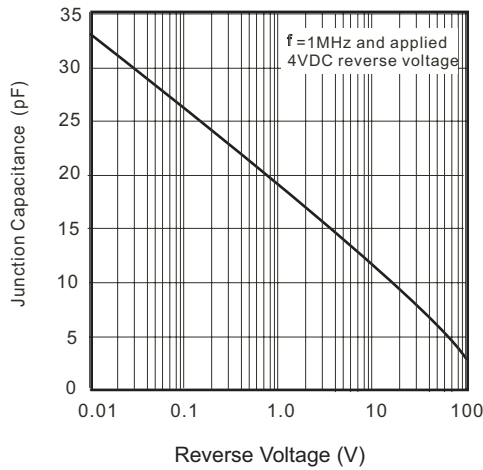


Fig. 4 - Non Repetitive Forward Surge Current

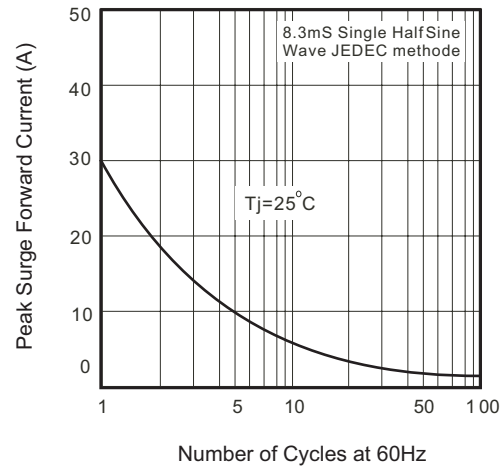
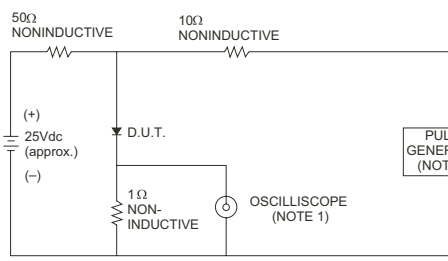


Fig. 5 - Test Circuit Diagram and Reverse Recovery Time Characteristics



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

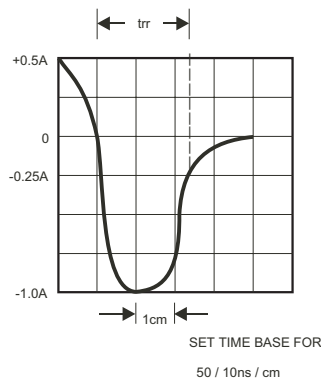


Fig. 6 - Current Derating Curve

