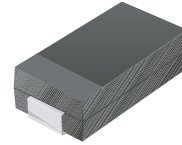


SMD Efficient Fast Recovery Rectifier

CFRA151-G Thru CFRA157-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

Forward Current: 1.0 Amp

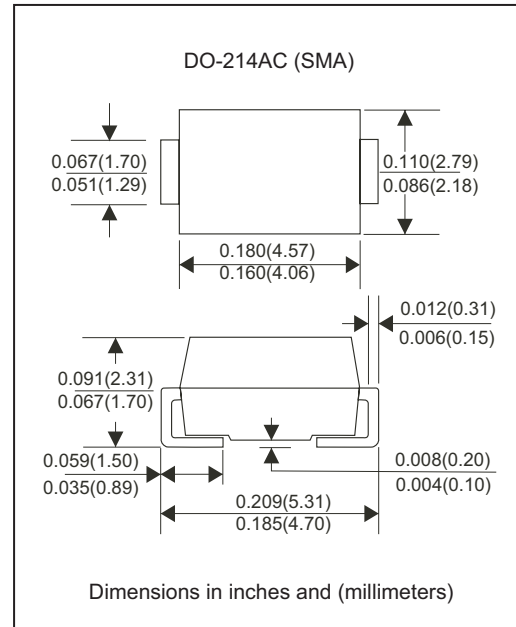


Features:

- 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 151-G | CFRA 152-G | CFRA 153-G | CFRA 154-G | CFRA 155-G | CFRA 156-G | CFRA 157-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} | 50 | | | | | | | A |
| Max. Average Forward Current | I_o | 1.5 | | | | | | | 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 | | | | | | | μA |
| Max. Thermal Resistance (Note1) | $R_{\theta JL}$ | 53 | | | | | | | $^{\circ}C/W$ |
| 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.

“-G” suffix designates RoHS compliant Version



Rating and Characteristic Curves (CFRA151-G thru CFRA157-G)

Fig. 1 - Reverse Characteristics

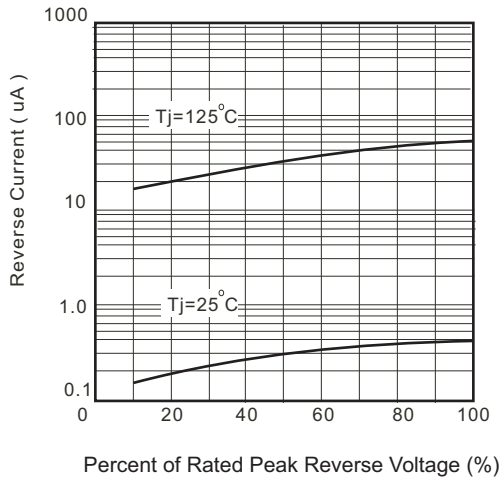


Fig.2 - Forward Characteristics

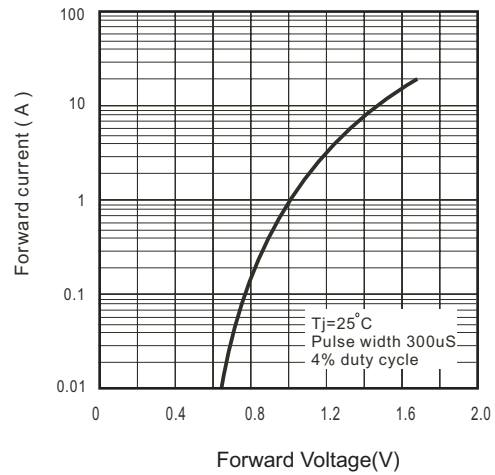


Fig. 3 - Junction Capacitance

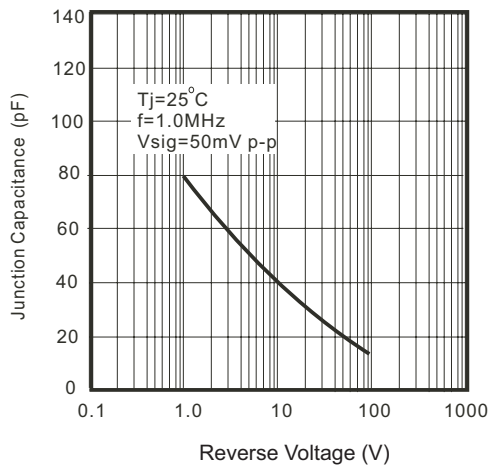


Fig. 4 - Non Repetitive Forward Surge Current

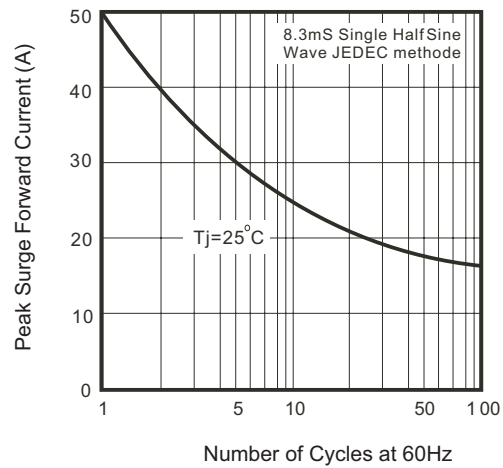
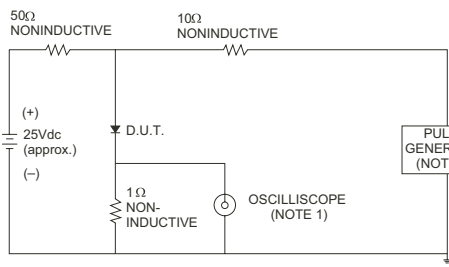


Fig. 5 - Test Circuit Diagram and Reverse Recovery Time Characteristics



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

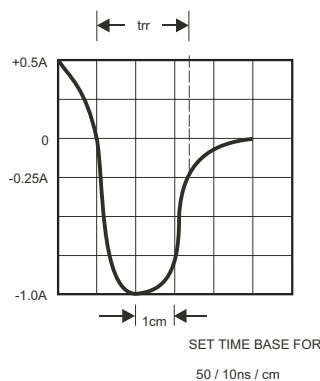


Fig. 6 - Current Derating Curve

