

# SMD Efficient Fast Recovery Rectifier

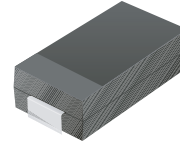
## CEFC301-G Thru CEFC305-G (RoHS Device)

**Reverse Voltage: 50 ~ 600 Volts**

**Forward Current: 3.0 Amp**

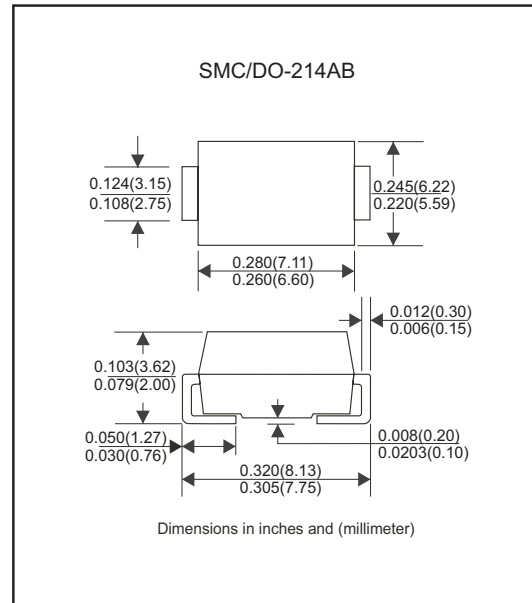
### Features:

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



### Mechanical Data:

- Case: JEDEC DO-214AB molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.063 gram



### Maximum Ratings and Electrical Characteristics:

| Parameter  | Symbol          | CEFC301-G   | CEFC302-G | CEFC303-G | CEFC304-G | CEFC305-G | Unit          |
|--|-----------------|-------------|-----------|-----------|-----------|-----------|---------------|
| Max. Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 50          | 100       | 200       | 400       | 600       | V             |
| Max. DC Blocking Voltage   | $V_{DC}$        | 50          | 100       | 200       | 400       | 600       | V             |
| Max. RMS Voltage   | $V_{RMS}$       | 35          | 70        | 140       | 280       | 420       | V             |
| Peak Surge Forward Current<br>8.3ms single half sine-wave<br>superimposed on rate load<br>(JEDEC method) | $I_{FSM}$       | 75          |           |           |           |           | A             |
| Max. Average Forward Current   | $I_o$           | 3.0         |           |           |           |           | A             |
| Max. Instantaneous Forward Voltage<br>at 1.0A  | $V_F$           | 0.875       |           |           | 1.1       | 1.25      | V             |
| Reverse recovery time  | $T_{rr}$        | 25          |           |           | 35        | 50        | nS            |
| Max. DC Reverse Current at Rated DC<br>Blocking Voltage<br>$T_a=25^{\circ}C$<br>$T_a=100^{\circ}C$       | $I_R$           | 5.0<br>200  |           |           |           |           | $\mu A$       |
| Max. Thermal Resistance (Note1)  | $R_{\theta JL}$ | 13          |           |           |           |           | $^{\circ}C/W$ |
| Max. Operating Junction Temperature  | $T_j$           | -55 to +150 |           |           |           |           | $^{\circ}C$   |
| Storage Temperature  | $T_{STG}$       | -55 to +150 |           |           |           |           | $^{\circ}C$   |

Note1: Thermal resistance from junction to lead mounted on PCB with 8.0mmx8.0mm<sup>2</sup> copper pad areas.

## Rating and Characteristic Curves (CEFC301-G thru CEFC305-G)

Fig. 1 - Reverse Characteristics

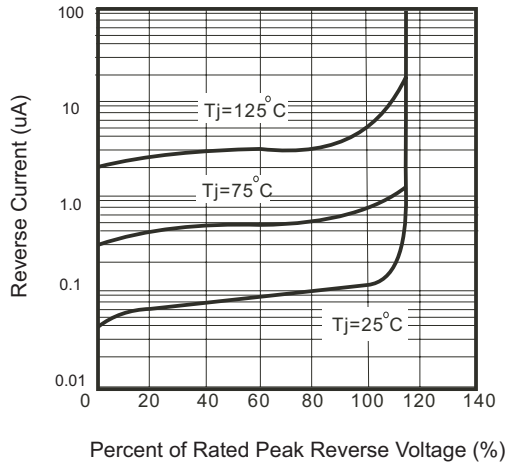


Fig. 2 - Forward Characteristics

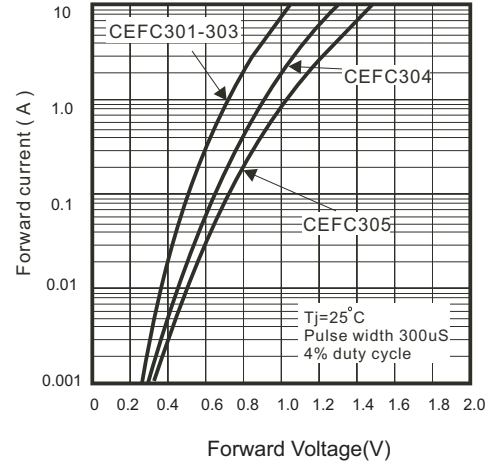


Fig. 3 - Junction Capacitance

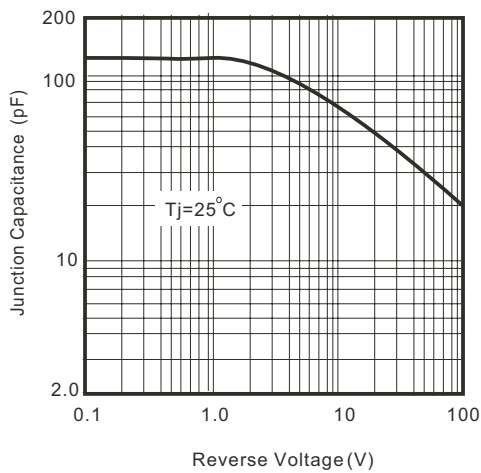


Fig. 4 - Non Repetitive Forward Surge Current

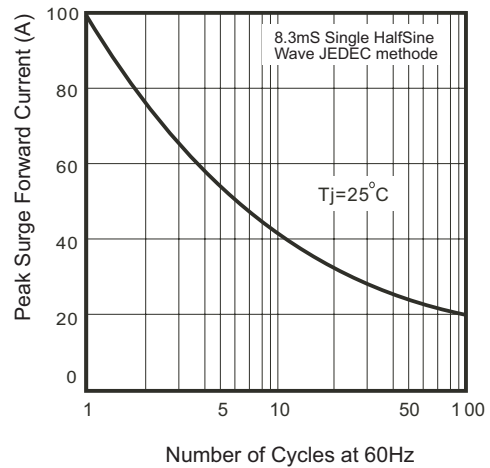


Fig. 5 - Test Circuit Diagram and Reverse Recovery Time Characteristics

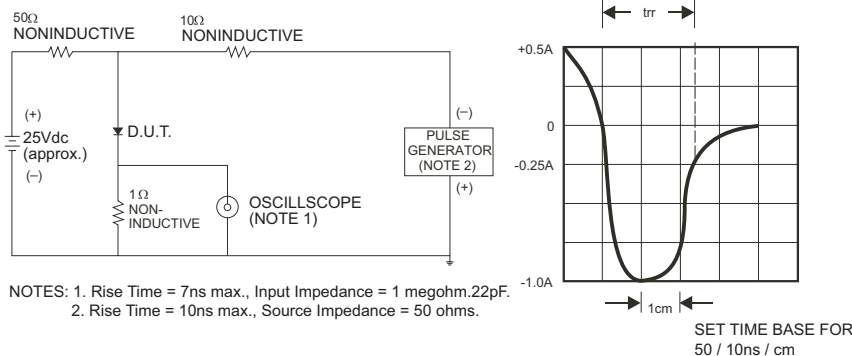


Fig. 6 - Current Derating Curve

