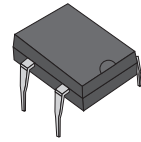


## DF2005-G Thru. DF210-G

**Reverse Voltage: 50 to 1000V**

**Forward Current: 2.0A**

**RoHS Device**

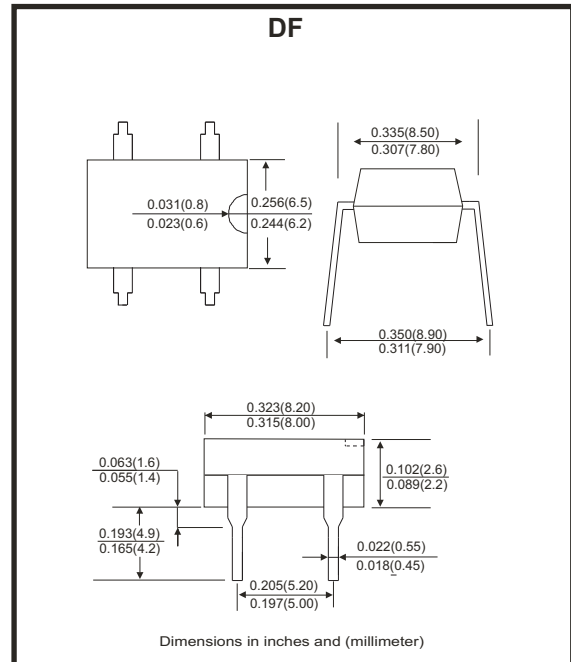


### Features

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0

### Mechanical Data

- Polarity: As marked on Body
- Weight: 0.38 grams
- Mounting position: Any



### Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter                                                                                                         | Symbol          | DF2005-G        | DF201-G | DF202-G | DF204-G | DF206-G | DF208-G | DF210-G | Unit                 |
|-------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|---------|---------|---------|---------|---------|---------|----------------------|
| Maximum Reverse Peak Repetitive Voltage                                                                           | $V_{RRM}$       | 50              | 100     | 200     | 400     | 600     | 800     | 1000    | V                    |
| Maximum RMS Voltage                                                                                               | $V_{RMS}$       | 35              | 70      | 140     | 280     | 420     | 560     | 700     | V                    |
| Maximum DC Blocking Voltage                                                                                       | $V_{DC}$        | 50              | 100     | 200     | 400     | 600     | 800     | 1000    | V                    |
| Maximum Average Forward Rectified Current @ $T_A=40^\circ\text{C}$                                                | $I_{(AV)}$      | 2.0             |         |         |         |         |         |         | A                    |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed on Rated Load                               | $I_{FSM}$       | 60              |         |         |         |         |         |         | A                    |
| $I^2 t$ Rating for Fusing (t = 8.3ms)                                                                             | $I^2 t$         | 10.4            |         |         |         |         |         |         | $\text{A}^2\text{s}$ |
| Maximum Forward Voltage at 2.0A DC                                                                                | $V_F$           | 1.1             |         |         |         |         |         |         | V                    |
| Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$<br>at Rated DC Blocking Voltage @ $T_J = 125^\circ\text{C}$ | $I_R$           | 10<br>500       |         |         |         |         |         |         | $\mu\text{A}$        |
| Typical Junction Capacitance Per Element (Note 1)                                                                 | $C_J$           | 25              |         |         |         |         |         |         | pF                   |
| Typical Thermal Resistance (Note 2)                                                                               | $R_{\theta JA}$ | 40              |         |         |         |         |         |         | $^\circ\text{C/W}$   |
| Operating Temperature Range                                                                                       | $T_J$           | $-55 \sim +150$ |         |         |         |         |         |         | $^\circ\text{C}$     |
| Storage Temperature Range                                                                                         | $T_{STG}$       | $-55 \sim +150$ |         |         |         |         |         |         | $^\circ\text{C}$     |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
2. Unit mounted on P.C.B with 0.50"×0.50" (13×13mm) copper pads.

## Rating and Characteristics Curves (DF2005-G Thru. DF210-G)

FIG.1 - Derating Curve For Output Rectified Current

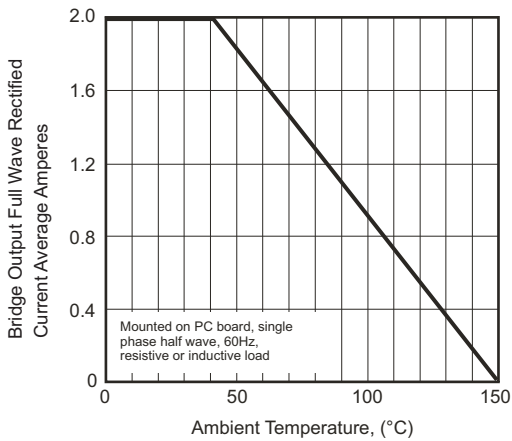


FIG. 2 - Maximum Non-Repetitive Peak Forward Surge Current

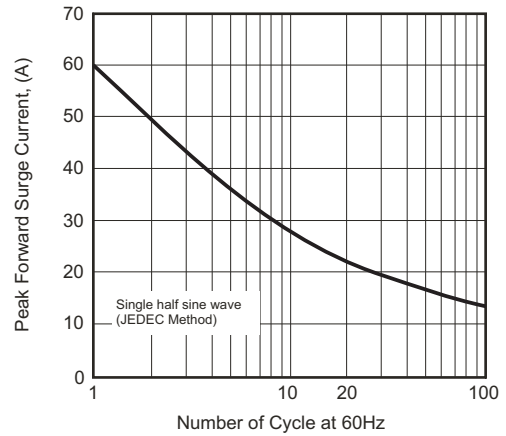


Fig.3 - Typical Junction Capacitance

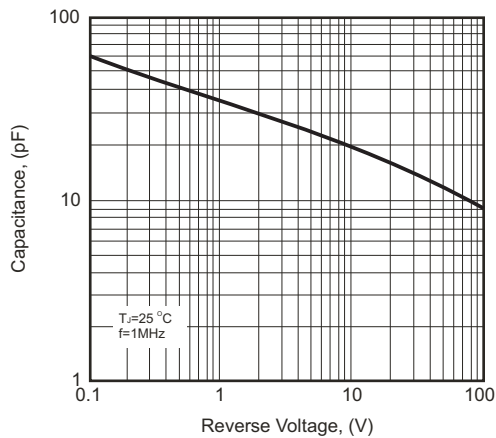


Fig.4 - Typical Forward Characteristics

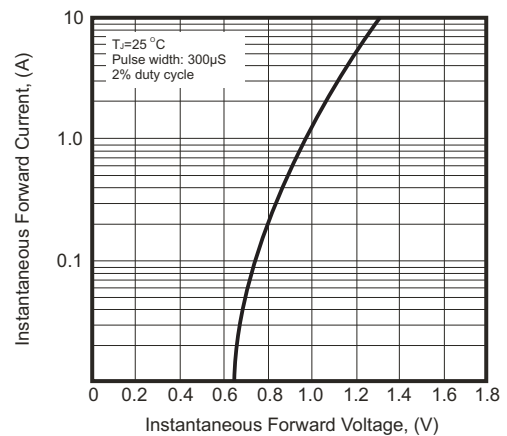
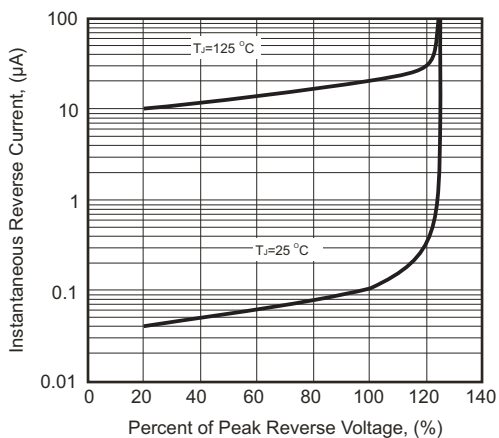
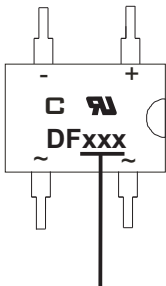


Fig.5 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| DF2005-G    | DF2005       |
| DF201-G     | DF201        |
| DF202-G     | DF202        |
| DF204-G     | DF204        |
| DF206-G     | DF206        |
| DF208-G     | DF208        |
| DF210-G     | DF210        |



XX / XXX = Product type marking code  
C = Comchip Logo

## Standard Packaging

| Case Type | TUBE PACK       |                |
|-----------|-----------------|----------------|
|           | TUBE<br>( pcs ) | BOX<br>( pcs ) |
| DF        | 50              | 2,500          |