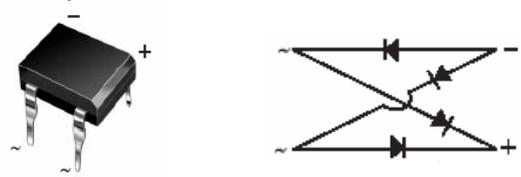


## Features

- Ideal for printed circuit boards
- Applicable for automotive insertion
- High surge current capability
- Solder dip 260°C, 40 seconds

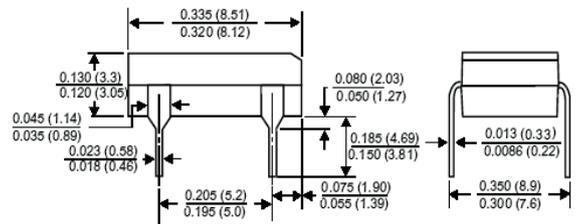
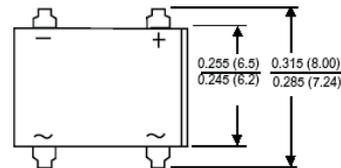


DF

Schematic Diagram

## Mechanical Data

- Case: DF
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As marked on body



## Applications

General purpose use in ac-to-dc bridge full wave rectification for SMPS, lighting ballasts, adapter, battery charger, home appliances, office equipment, and telecommunication applications

## Maximum Ratings and Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified.)

Parameter	Symbol	DF005	DF01	DF02	DF04	DF06	DF08	DF10	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at T <sub>A</sub> =40°C	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	30							A
Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	3.7							A <sup>2</sup> sec
Maximum Instantaneous Forward Voltage Drop per Leg at 0.5A	V <sub>F</sub>	1.10							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg	I <sub>R</sub>	5							μA
		500							
Typical Junction Capacitance per Element at 4.0V, 1MHz	C <sub>J</sub>	25							pF
Typical Thermal Resistance per Leg <sup>1</sup>	R <sub>θJA</sub>	40							°C/W
	R <sub>θJL</sub>	15							
	R <sub>θJC</sub>	18							
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note:

1. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

## Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

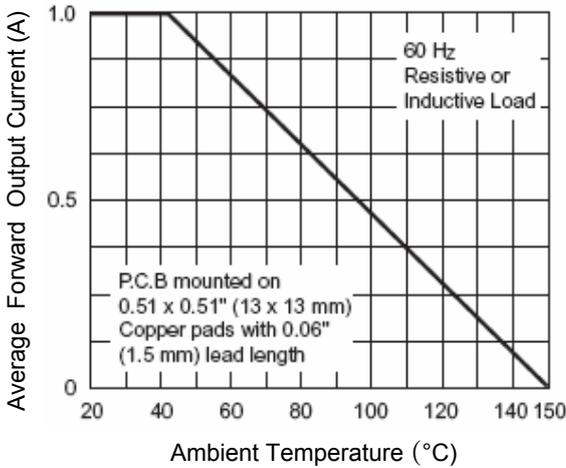


Figure 1. Derating Curve Output Rectified Current

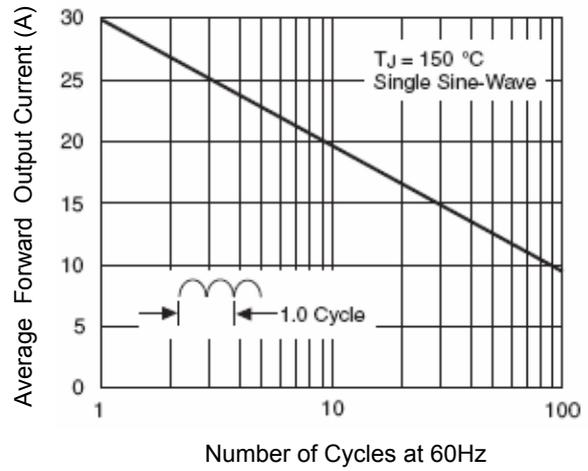


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

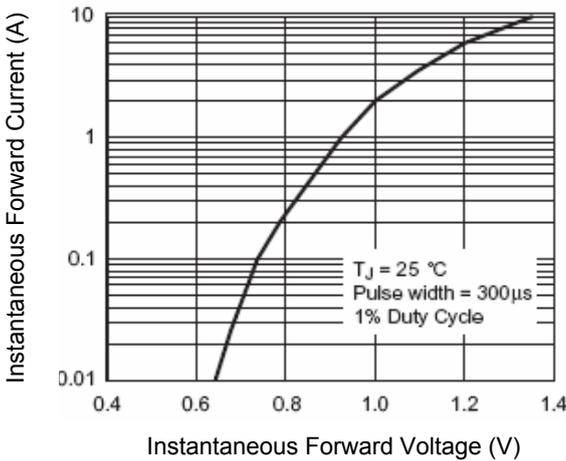


Figure 3. Typical Forward Characteristics Per Leg

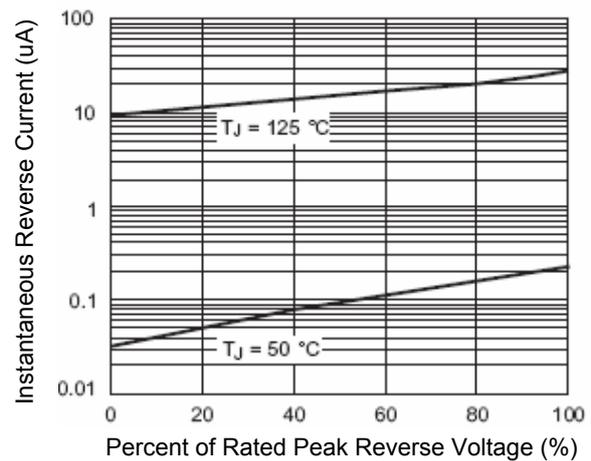


Figure 4. Typical Reverse Leakage Characteristics Per Leg

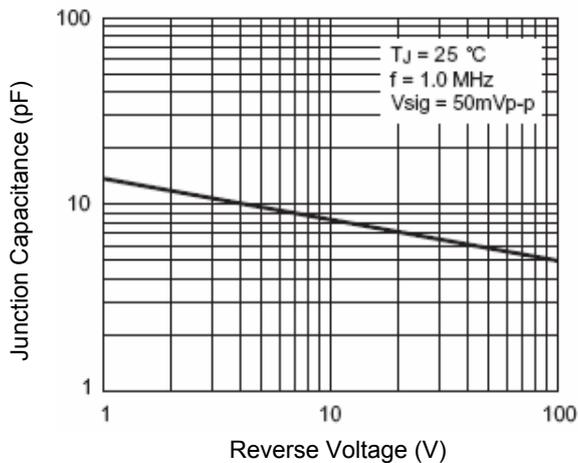


Figure 5. Typical Junction Capacitance Per Leg

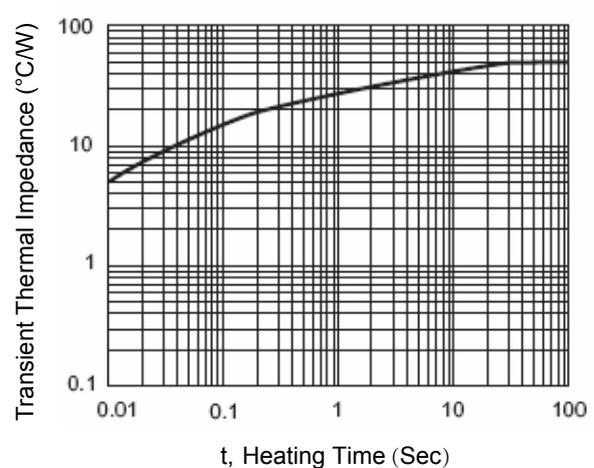


Figure 6. Typical Transient Thermal Impedance Per Leg