

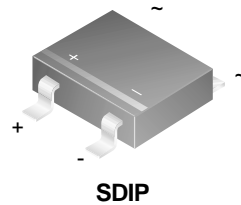


# DF005S - DF10S

DF005S - DF10S

## Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.
- UL certified, UL #E111753.



## Bridge Rectifiers

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		005S	01S	02S	04S	06S	08S	10S	
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V <sub>R</sub>	DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, @ T <sub>A</sub> = 40°C	1.5							A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	50							A
T <sub>stg</sub>	Storage Temperature Range	-55 to +150							°C
T <sub>J</sub>	Operating Junction Temperature	-55 to +150							°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	3.1	W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient,* per leg	40	°C/W

\*Device mounted on PCB with 0.5 x 0.5" (13 x 13 mm).

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Device	Units
V <sub>F</sub>	Forward Voltage, per bridge @ 1.0 A	1.1	V
I <sub>R</sub>	Reverse Current, total bridge @ rated V <sub>R</sub> T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	5.0	μA
		500	μA
	I <sup>2</sup> t rating for fusing t < 8.35 ms	10	A <sup>2</sup> s
C <sub>T</sub>	Total Capacitance, per leg V <sub>R</sub> = 4.0 V, f = 1.0 MHz	25	pF

Typical Characteristics

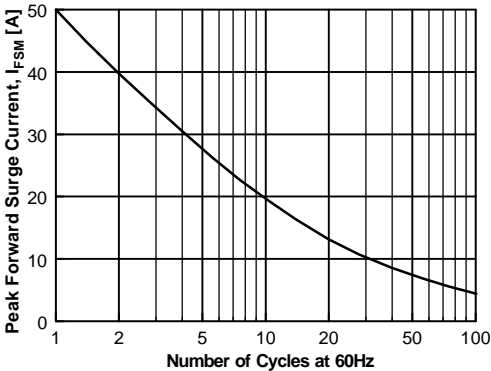


Figure 1. Non-Repetitive Surge Current

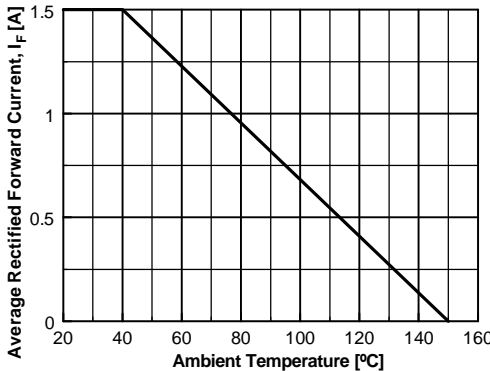


Figure 2. Forward Current Derating Curve

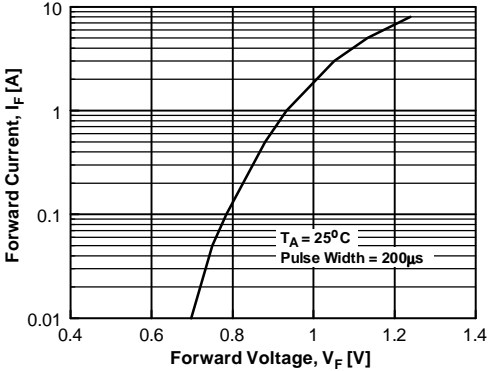


Figure 3. Forward Voltage Characteristics

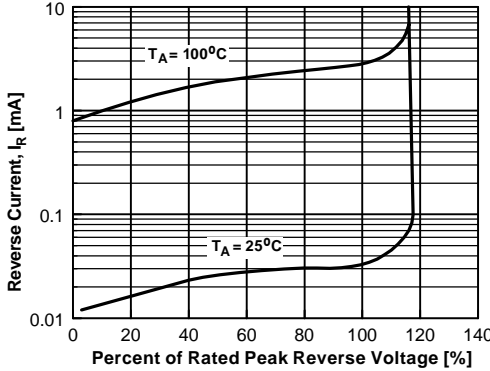


Figure 4. Reverse Current vs Reverse Voltage

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