

# DF005S - DF10S

# SURFACE MOUNT BRIDGE RECTIFIERS

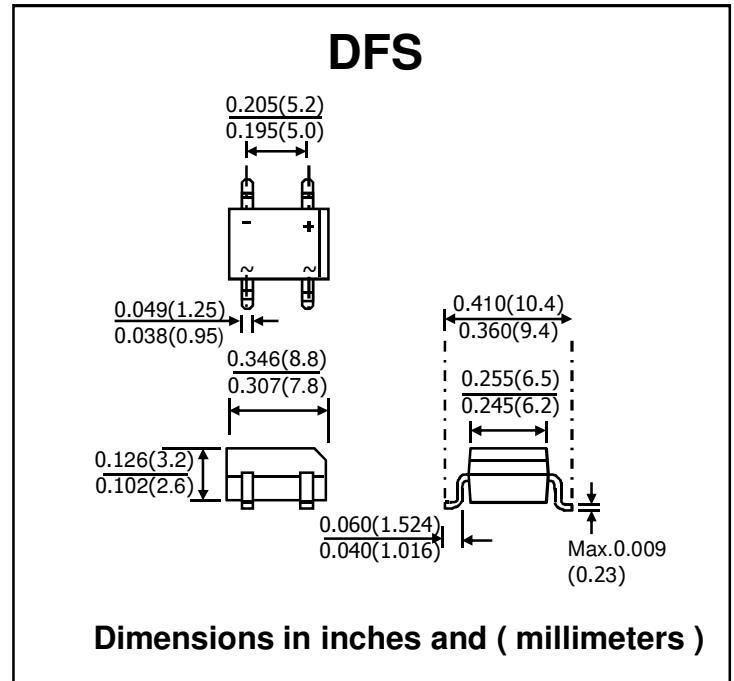
**PRV : 50 - 1000 Volts**  
**Io : 1.0 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : Leads solderable per MIL-STD-202, method 208 guaranteed
- \* Mounting position : Any
- \* Weight : 0.02 ounce, 0.4 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified. 60 Hz, resistive or inductive load.

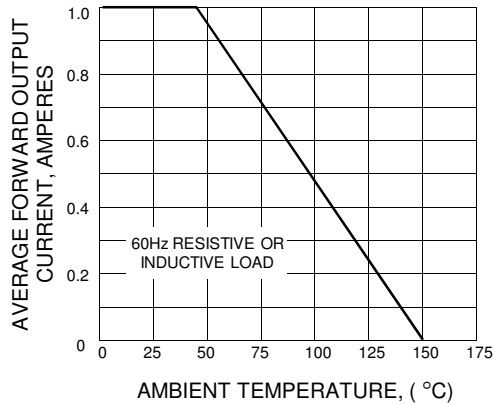
RATING	SYMBOL	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at $T_a = 40\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Current Squared Time at $t < 8.3\text{ ms}$ .	$I^2t$	10							$A^2S$
Maximum Instantaneous Forward Voltage per element at $I_F = 1.0\text{ A}$	$V_F$	1.1							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
	$I_{R(H)}$	500							$\mu\text{A}$
Typical Junction Capacitance per element (Note 1)	$C_j$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	- 55 to + 150							$^\circ\text{C}$

Notes : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

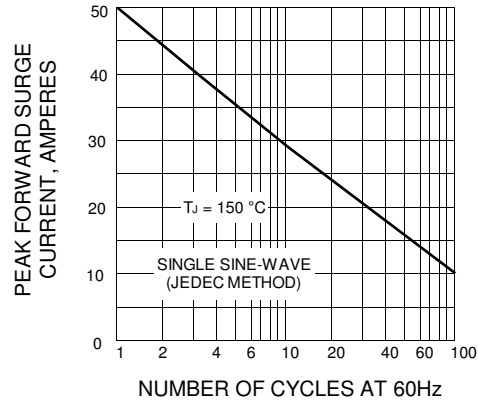
(2) Thermal Resistance from Junction to Ambient on P.C.B. with 0.5" x 0.5" (13mm x 13mm) Copper Pads.

**RATING AND CHARACTERISTIC CURVES ( DF005S - DF10S )**

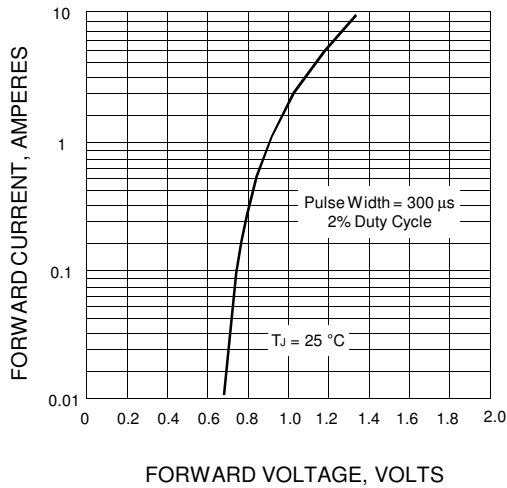
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**

