

# DF15005S - DF1510S

**PRV : 50 - 1000 Volts**

**Io : 1.5 Ampere**

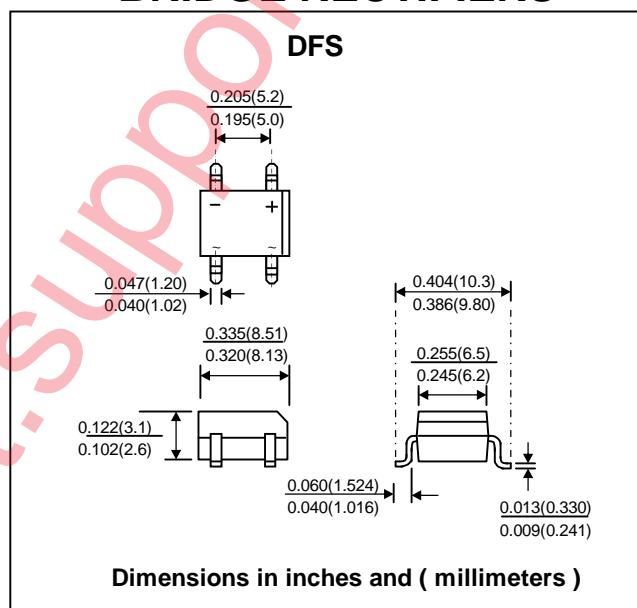
### FEATURES :

- \* 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-O rate flame retardant
- \* Terminals : Plated Lead solderable per MIL-STD-750, Method 2026
- \* Polarity : Polarity symbols marked on body
- \* Mounting position : Any
- \* Weight : 0.4 gram

## SURFACE MOUNT BRIDGE RECTIFIERS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

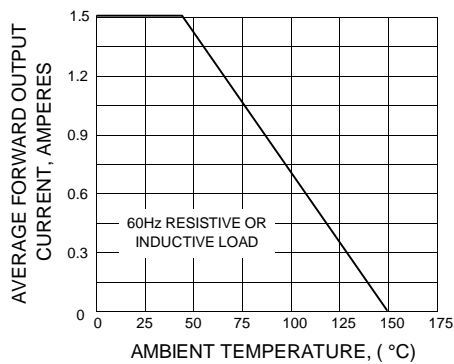
RATING	SYMBOL	DF	DF	DF	DF	DF	DF	DF	UNIT
		15005S	1501S	1502S	1504S	1506S	1508S	1510S	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at Ta = 40°C	IF(AV)	1.5							A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	50							A
Current Squared Time at t < 8.3 ms.	I <sup>2</sup> t	10							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage per element at IF = 1.5 A	VF	1.1							V
Maximum DC Reverse Current Ta = 25°C at Rated DC Blocking Voltage Ta = 125°C	IR	5.0							µA
	IR(H)	500							µA
Typical Junction Capacitance per element (Note 1)	Cj	25							pF
Typical Thermal Resistance (Note 2)	RθJA	40							°C/W
Junction and Storage Temperature Range	TJ, TSTG	- 55 to + 150							°C

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

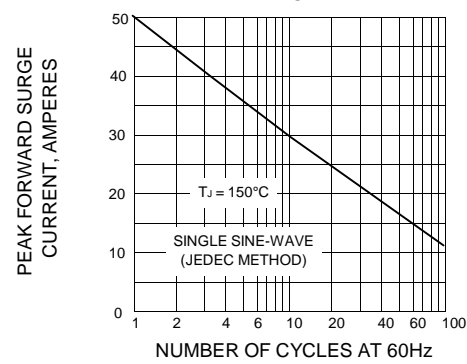
(2) Units mounted on P.C.B. with 0.51 x 0.51" (13 x 13mm) copper pads

**RATING AND CHARACTERISTIC CURVES ( DF15005S - DF1510S )**

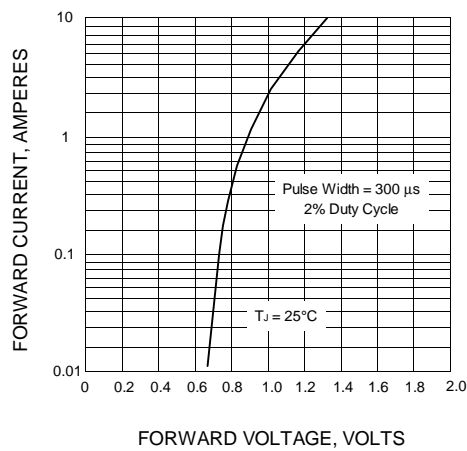
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**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**

