

## SURFACE MOUNT FAST RECOVERY BRIDGE

### RDFS005 THRU RDFS08

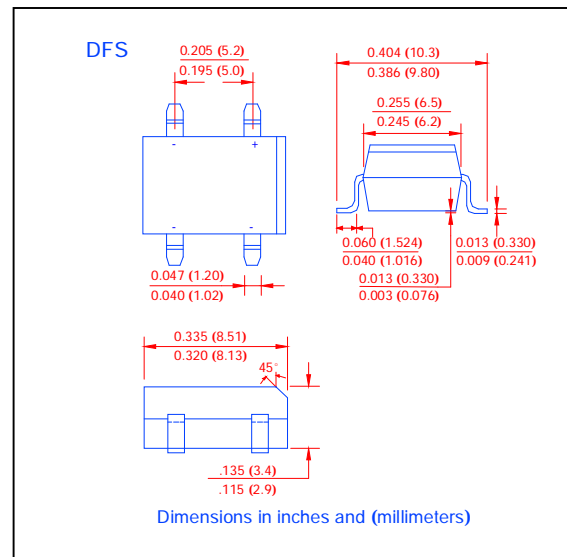
**VOLTAGE RANGE**
**50 to 800 Volts**
**CURRENT**
**1.0 Ampere**

#### FEATURES

- Glass passivated chip junction
- Fast recovery time
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals

#### MECHANICAL DATA

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- Leadp: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.04 ounce, 1.0 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	RDFS005	RDFS01	RDFS02	RDFS04	RDFS06	RDFS08	UNIT	
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	50	100	200	400	600	800	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	Volts	
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.0						Amps	
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50						Amps	
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10						$\text{A}^2\text{s}$	
Maximum Instantaneous Forward Voltage drop Per Bridge element 1.0A	$V_F$	1.3						Volts	
Maximum Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ\text{C}$	$I_R$						5.0	$\mu\text{Amps}$
	$T_A=125^\circ\text{C}$							0.5	mAmps
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	200			350			nS	
Typical Junction Capacitance (Note 3)	$C_J$	25						pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40						$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)						$^\circ\text{C}$	

- Notes:**
1. Test condition:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
  2. Unit mounted on P.C.B. with 0.51"x0.51" (13x13mm) copper pads.
  3. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

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CURRENT

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### RATINGS AND CHARACTERISTIC CURVES RDFS005 THRU RDFS08

FIG. 1- FORWARD CURRENT DERATING CURVE

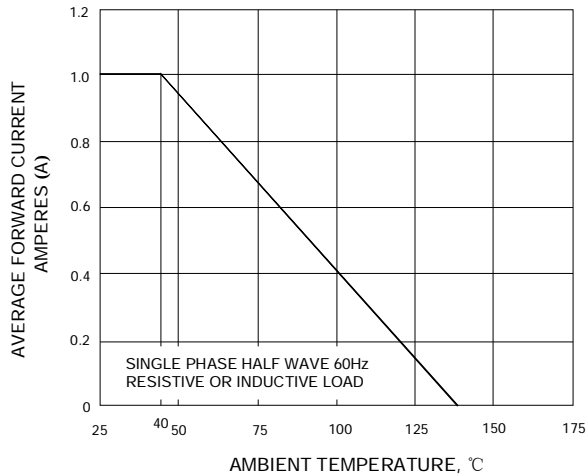


FIG. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

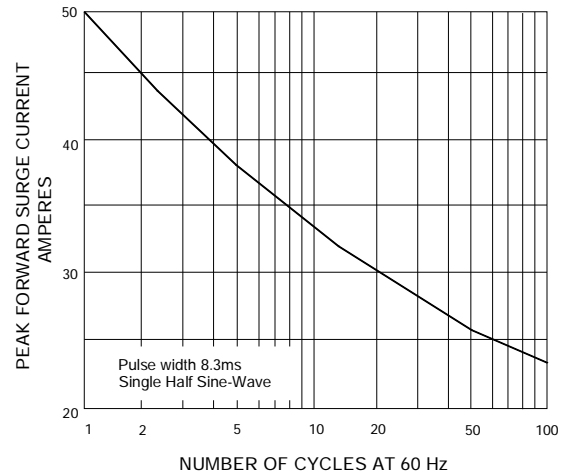


FIG. 3- TYPICAL JUNCTION CAPACITANCE

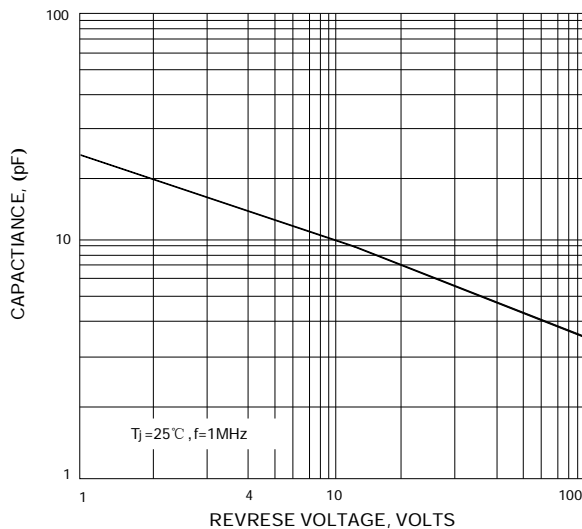


FIG. 4- TYPICAL FORWARD CHARACTERISTICS

