



# SURFACE MOUNT BRIDGE

**MDF005 THRU MDF10**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

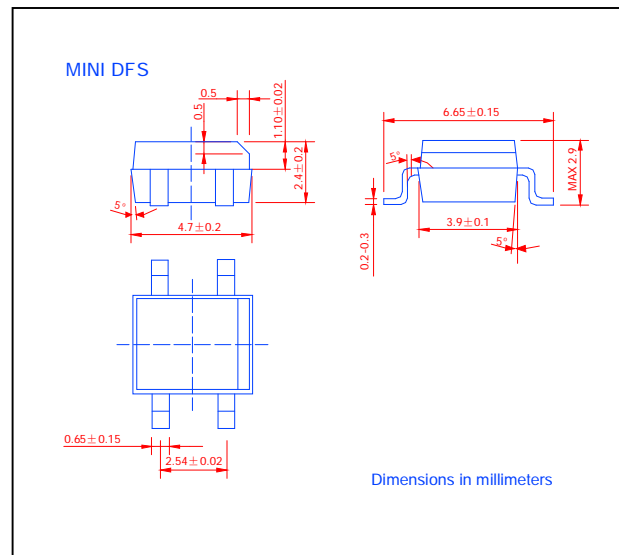
**1.0 Amperes**

### FEATURES

- Glass passivated chip junction  
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: Epoxy, Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- Lead: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.4 ounce, 0.1 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	MDF005	MDF01	MDF02	MDF04	MDF06	MDF08	MDF10	UNIT	
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_C=40^\circ C$ (Note 2)	$I_{(AV)}$	0.8							Amps	
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40							Amps	
Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	8							$A^2s$	
Maximum Instantaneous Forward Voltage drop Per Bridge element 0.8A	$V_F$	1.2							Volts	
Maximum DC Reverse Current at rated DC blocking voltage per element	$T_A=25^\circ C$	$I_R$							10	$\mu Amps$
	$T_A=125^\circ C$								0.5	$\mu Amps$
Typical Junction Capacitance (NOTE 1)	$C_J$	25							$^\circ C/W$	
Typical Thermal Resistance (NOTE 2)	$R_{\theta JC}$	50							$V_{AC}$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)							$^\circ C$	

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
  2. Unit mounted on P.C.B. with 0.51" x 0.51" (13 x 13mm) Copper plate.



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## RATINGS AND CHARACTERISTIC CURVES MDF005 THRU MDF10

FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

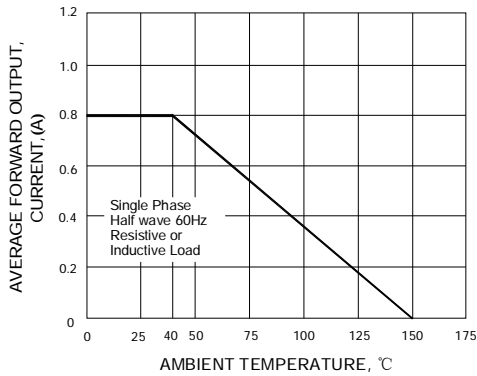


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

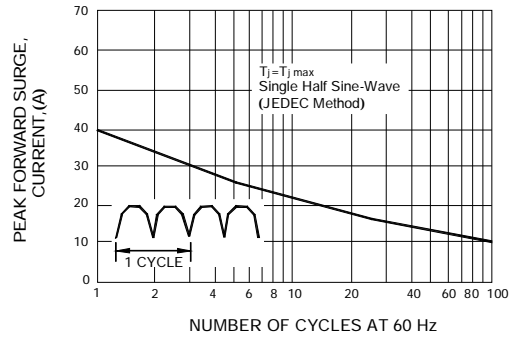


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

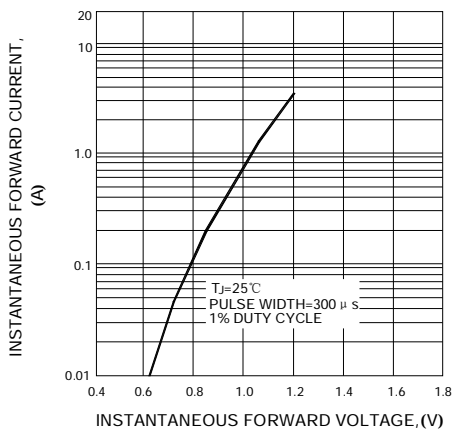


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

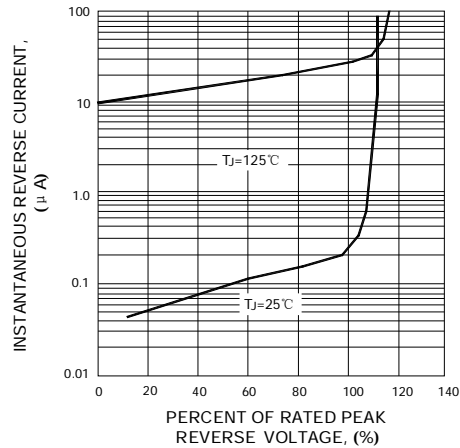


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

