



## SURFACE MOUNT BRIDGE

**MDF005 THRU MDF10**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

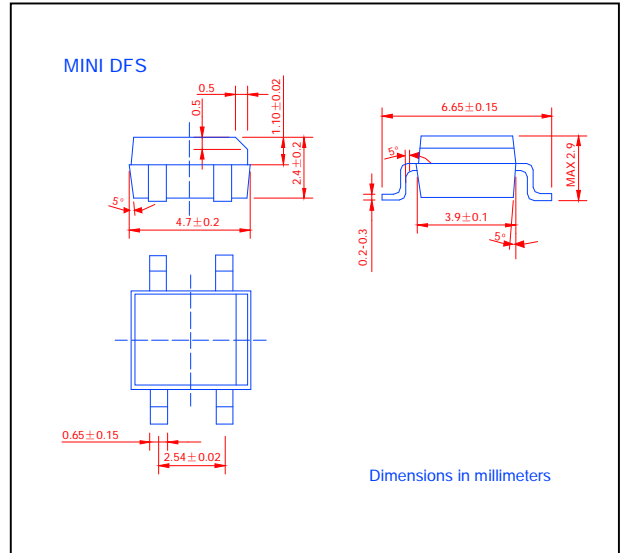
**1.0 Amperes**

**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	MDF02	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	$T_A=25^\circ C$	$I_R$							$\mu Amps$
	$T_A=125^\circ C$								$\mu Amps$
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”×0.51” ( 13×13mm) Copper plate.



**SURFACE MOUNT BRIDGE**

**MDF005 THRU MDF10**

**VOLTAGE RANGE**

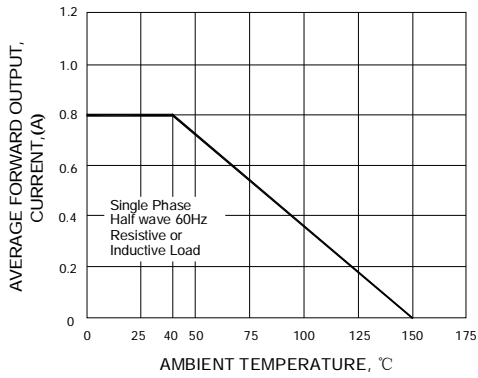
**50 to 1000 Volts**

**CURRENT**

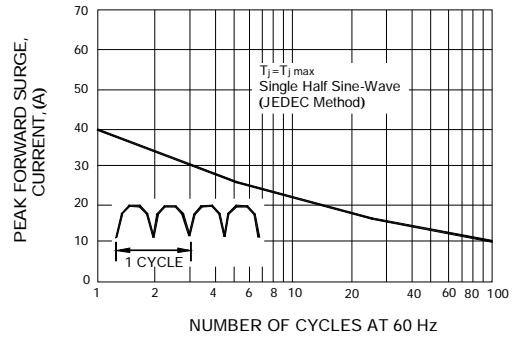
**1.0 Ampere**

**RATINGS AND CHARACTERISTIC CURVES MDF005 THRU MDF10**

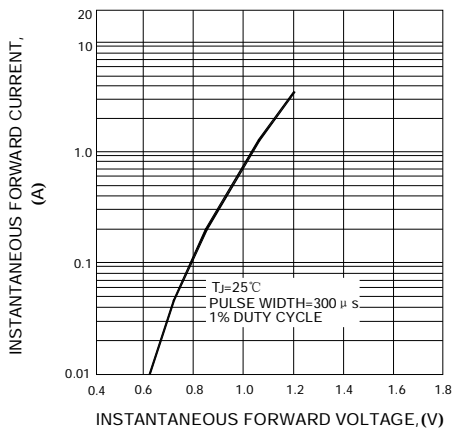
**FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



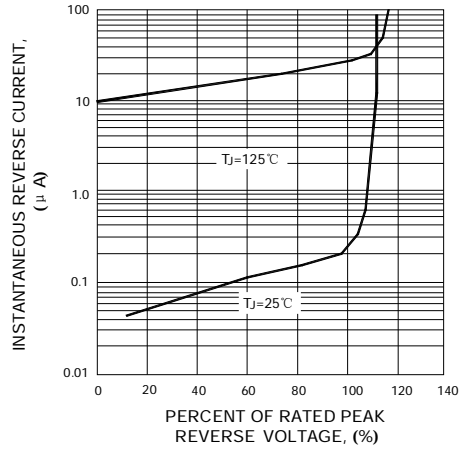
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT**



**FIG. 3- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT**



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



**FIG. 5- TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT**

