

SURFACE MOUNT BRIDGE

MDF005 THRU MDF10

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

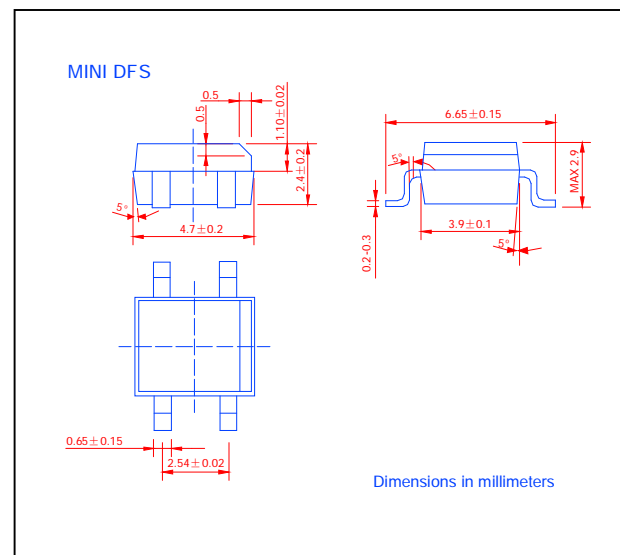
1.0 Amperes

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 $T_C=40^\circ\text{C}$ (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 ($t < 8.3\text{ms}$)	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	$T_A=25^\circ\text{C}$	10							μAmps
	$T_A=125^\circ\text{C}$	0.5							μAmps
Typical Junction Capacitance (NOTE 1)	C_J	25							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (NOTE 2)	$R_{\theta JC}$	50							V_{AC}
Operating and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)							$^\circ\text{C}$

- 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

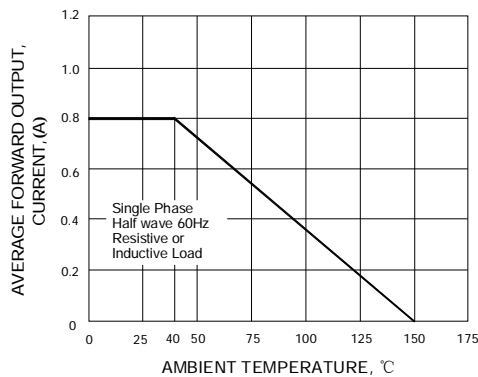


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

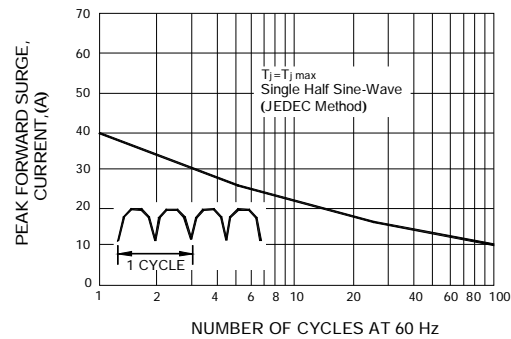


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

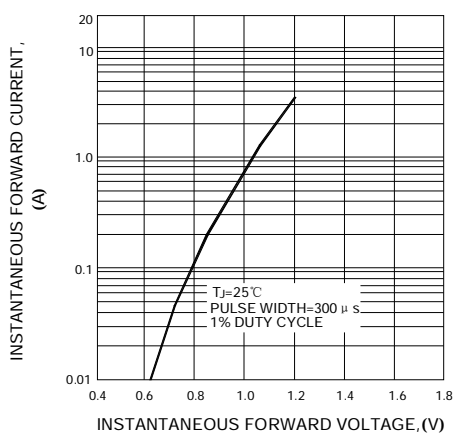


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

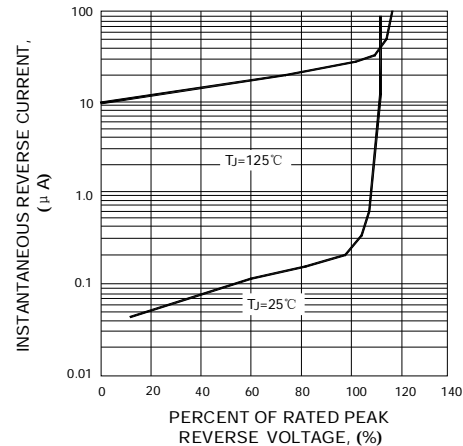


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

