

1. Features

- This series is UL listed under the Recognized Component Index, file number E142814
- Ideal for surface mount application
- Surge overload ratings to 30 amperes
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs (2.3kg) tension

2. Mechanical Data

- Case: Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Marked on body
- Mounting Position: Any

3. Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz. For Capacitive load derate current by 20%.

Parameter	Symbol	MB 05M	MB 1M	MB 2M	MB 4M	MB 6M	MB 8M	MB 10M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at $T_A=40^\circ\text{C}$ (*3)	$I_{F(AV)}$	0.5							A
		0.8*							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	10							A^2sec
Typical thermal resistance per element (1)	R_{eJA}	110							$^\circ\text{C/W}$
Typical junction capacitance per element (2)	C_J	25							pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to 150							$^\circ\text{C}$



4. Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz. For Capacitive load derate current by 20%.

Parameter	Symbol	MB 05M	MB 1M	MB 2M	MB 4M	MB 6M	MB 8M	MB 10M	Units
Maximum instantaneous forward voltage drop per leg at 0.5A	V_F				1.1				V
Maximum DC reverse current at rated $T_A=25^\circ\text{C}$ DC blocking voltage per element $T_A=125^\circ\text{C}$	I_R				10				μA
					500				μA

Notes:

- (1) Thermal resistance from Junction to Ambient on P.C.board mounting.
- (2) Measured at 2.0MHz and applied reverse voltage of 4.0volts.
- (3) R-load on aluminum substrate $T_A=25^\circ\text{C}$.

5.Typical Characteristic

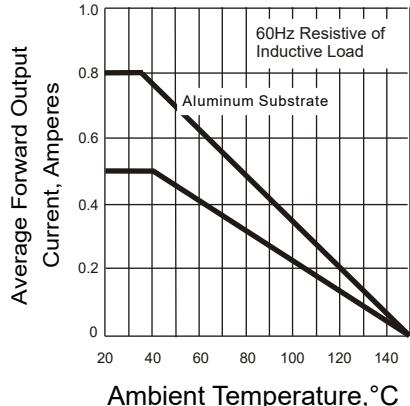
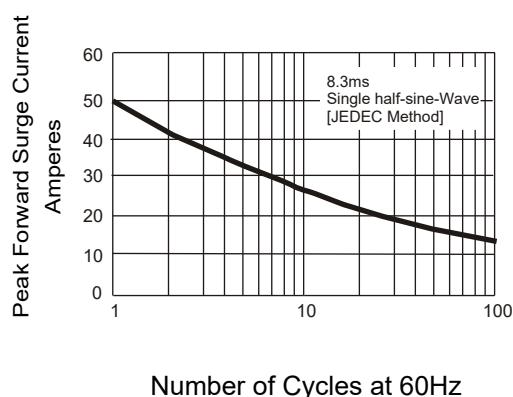


Figure 1: Derating Curve for Output Rectified Current



Number of Cycles at 60Hz

Figure 2: Maximum Non-repetitive Peak Forward Surge Current

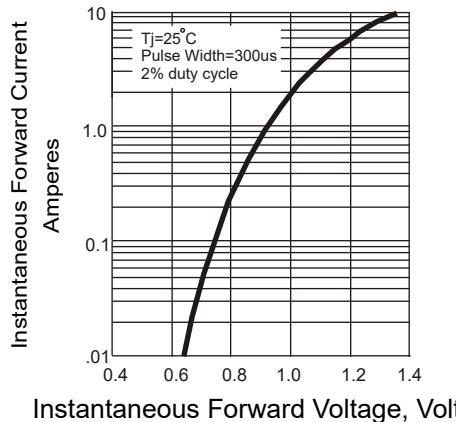


Figure 3: Typical Instantaneous Forward Characteristics

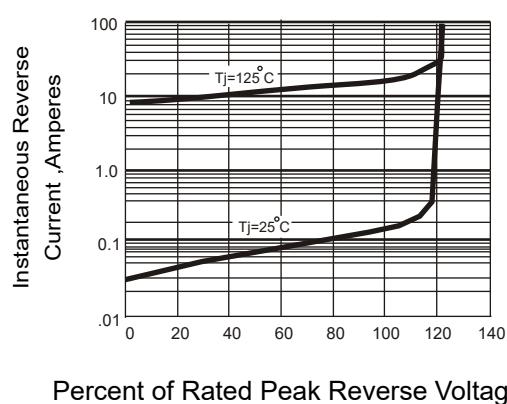


Figure 4: Typical Revers Characteristics

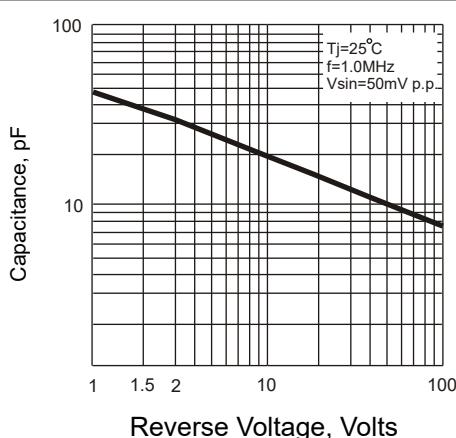
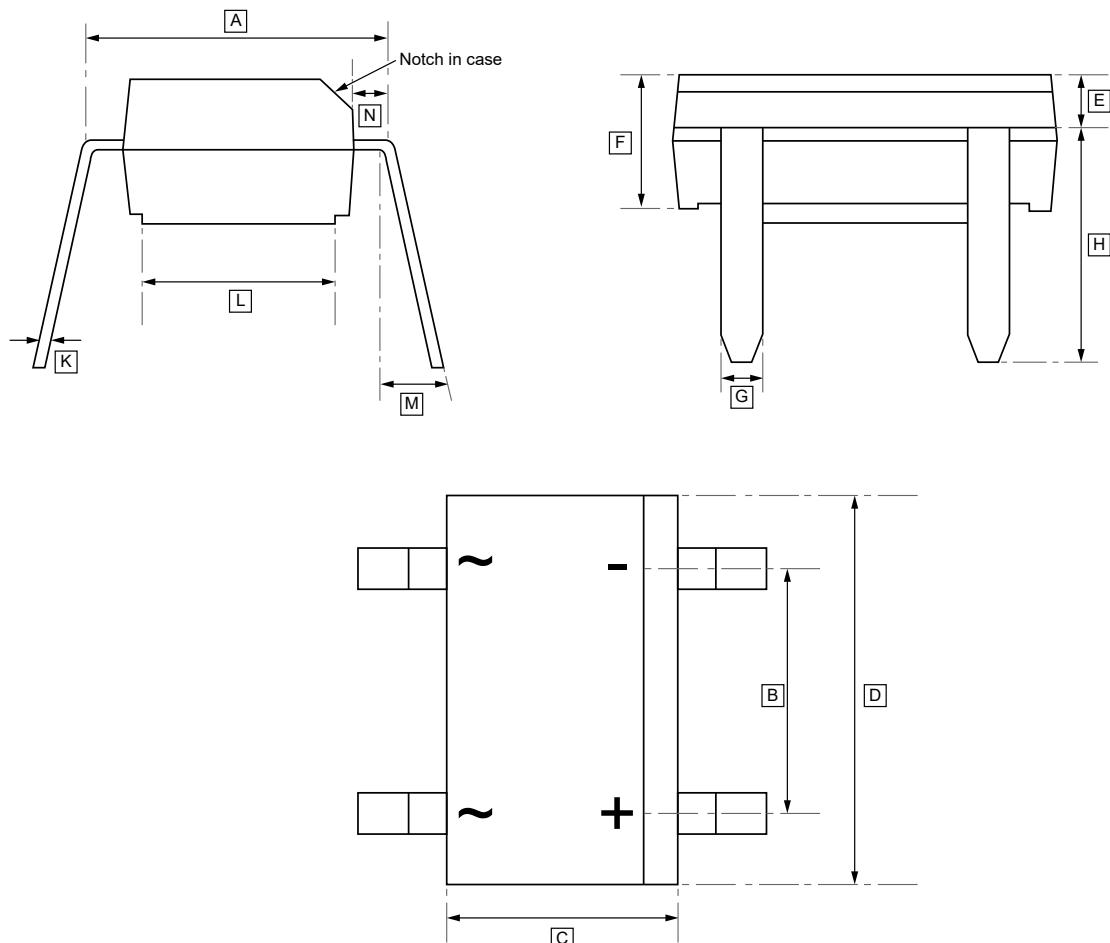


Figure 5: Typical Junction Capacitance

6.DIP-4 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	B	C	D	E	F	G	H	K	L	M	N
Min	4.95	2.41	3.65	4.55	0.99	2.30	0.43	3.35	0.15	3.48	10°	0.51
Max	5.21	2.67	4.10	4.83	1.24	2.70	0.74	3.75	0.41	3.73	15°	0.71



7.Ordering Information

Order Code	Marking	Package	Base QTY	Delivery Mode
UMW MB10M(0.8A)	MB10M	MB-1	5000	Tube and box
UMW MB6M(0.8A)	MB6M	MB-1	5000	Tape and reel



8.Disclaimer

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