

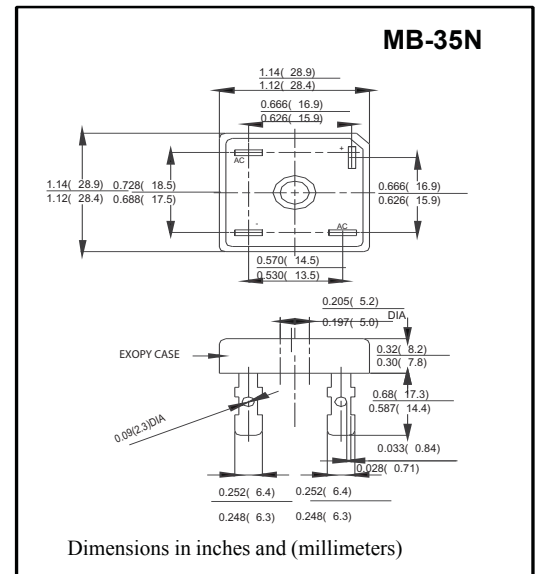
SINGLE PHASE BRIDGE RECTIFIER

FEATURES

- Low cost
- This series is UL recognized
- High forward surge current capability
- Ideal for printed circuit board
- High isolation voltage from case to leads
- High temperature soldering guaranteed: 260 oC/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded plastic body
- Terminal: Plated 0.25" (6.35mm) lug.
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 20 in.-lbs torque max.
- Weight: 1.02 ounce, 29 grams



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	MB4005	MB401	MB402	MB404	MB406	MB408	MB4010	UNITS	
Maximum Repetitive Peak Reverse 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, at $T_C=55^{\circ}C$ (See FIG.1)	$I_{(AV)}$	40							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400							Amps	
Rating for Fusing($t < 8.3ms$)	I^2T	664							A^2S	
Maximum Instantaneous Forward Voltage at 20.0A	V_F	1.1							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^{\circ}C$	I_R							10	μ Amps
	$T_A=100^{\circ}C$								1.0	mAmps
Isolation Voltage from case to lugs	ISO V	2500							V_{AC}	
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	1.4							$^{\circ}C/W$	
Operating Temperature Range	T_j	-55 to +150							$^{\circ}C$	
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}C$	

NOTES:

1. Unit mounted on 9"×3.5"×4.6" (23×9×11.8cm) Al. finned plate.
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

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RATING AND CHARACTERISTIC CURVES MB4005 - MB4010

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

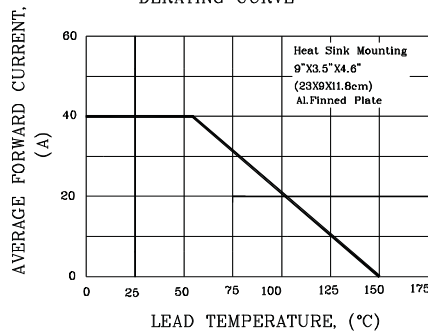


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

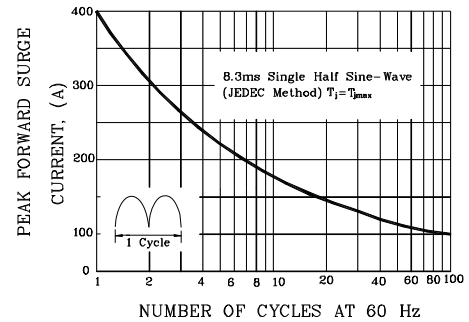


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

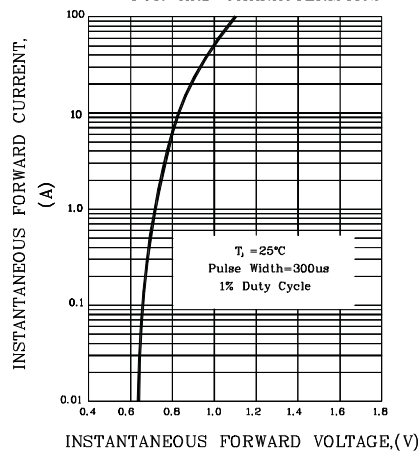


FIG.4-TYPICAL REVERSE CHARACTERISTICS

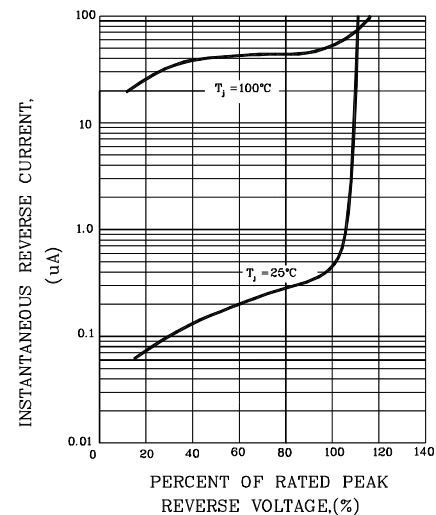
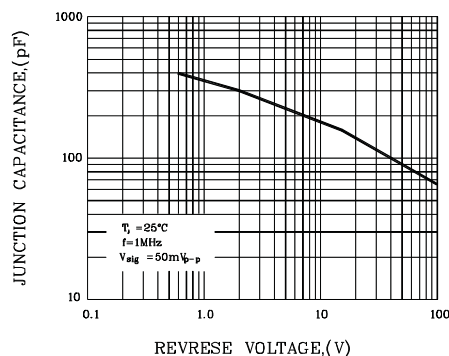


FIG.5-TYPICAL JUNCTION CAPACITANCE



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.