

MB05S thru MB10S

1.0 A Single-Phase Glass Passivated Bridge Rectifiers Rectifier Reverse Voltage 50 to 1000V

Features

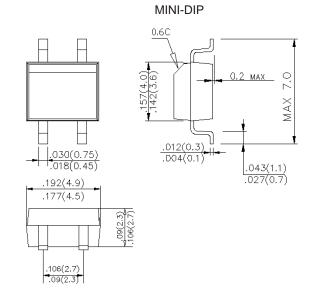
- This series is UL listed under the Recognized Component Index, file number E142814
- Ideal for surface mount application
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 30 amperes
- High temperature soldering guaranteed 260°C/5 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Molded plastic

Terminals: Plated leads solderable per MIL-STD-202,

Method 208 Polarity: Marked on body Mounting Position: Any Weight: 0.11 grams (approx)



Dimensions in millimeters(1mm =0.0394")

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

Parameter	Symbol	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=40 °C	IF(AV)	1.0							А
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							А
Rating for fusing (t<8.3ms)	l ² t	10							A ² sec
Typical thermal resistance per element (1)	ReJA	110							°C /W
Typical junction capacitance per element (2)	Cj	25.0							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

Electrical Characteristics

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

Parameter	Symbol	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum instantaneous forward voltage drop per leg at 0.5A	VF	1.1							V
Maximum DC reverse current at rated TA =25 C DC blocking voltage per element TA =125 C	IR	10 500							μΑ

Notes: (1)Thermal resistance from Junction to Ambemt on P.C.board mounting. (2) Measured at 2.0 MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves (TA=25°C Unless otherwise noted) MB05S thru MB10S

Peak Forward Surge Current,

0

Fig. 1 Derating Curve for **Output Rectified Current**

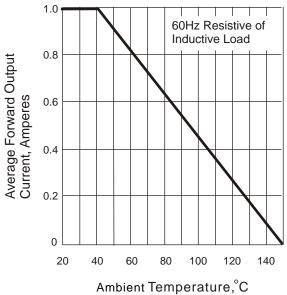


Fig. 3 Typical Instantaneous **Forward Characteristics**

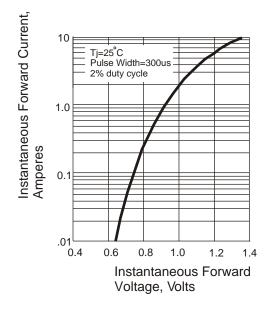


Fig. 2 Maximum Non-repetitive Peak **Forward Surge Current** 30 8.3ms Single half-sine-Wave [JEDEC Method] 20 10 Amperes

10 Number of Cycles at 60Hz 100

Fig. 4 Typical Revers **Characteristics**

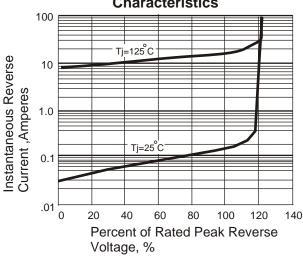
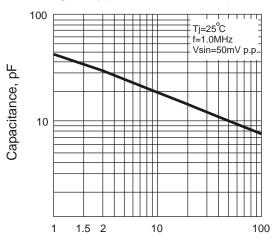


Fig. 5 Typical Junction Capacitance



Reverse Voltage, Volts