

MB005S - MB10S

PRV : 50 - 1000 Volts

Io : 1.0 Ampere

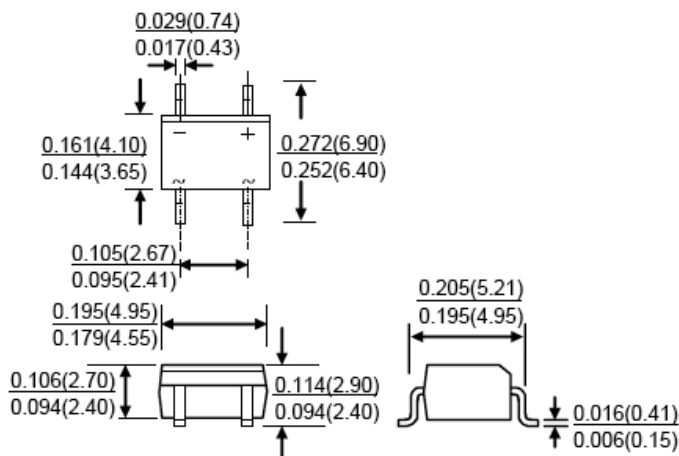
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Terminals : Plated Lead solderable per MIL-STD-750, Method 2026
- * Polarity : Polarity symbols marked on body
- * Mounting position : Any
- * Weight : 0.4 gram

SURFACE MOUNT BRIDGE RECTIFIERS MBS (TO-269AA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
60 Hz, resistive or inductive load.

RATING	SYMBOL	MB005S	MB01	MB02	MB04	MB06	MB08S	MB10	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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 Output Rectified Current at Ta = 40°C	I _{F(AV)}	1.0							A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Current Squared Time at t < 8.3 ms.	I ² t	10							A ² S
Maximum Instantaneous Forward Voltage per element at I _F = 1.0 A	V _F	1.1							V
Maximum DC Reverse Current Ta = 25°C at Rated DC Blocking Voltage Ta = 125°C	I _R	10							μA
	I _{R(H)}	500							μA
Typical Junction Capacitance per element (Note 1)	C _j	25							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	40							°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150							°C

Notes : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

(2) Thermal Resistance from Junction to Ambient on P.C.B. with 0.5" x 0.5" (13mm x 13mm) Copper Pads.

RATING AND CHARACTERISTIC CURVES (MB005S - MB10S)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

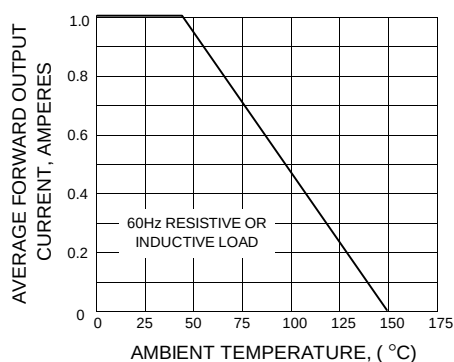


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

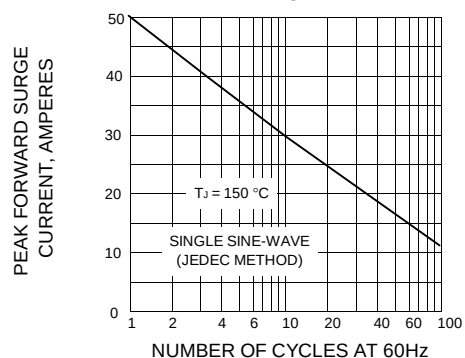


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

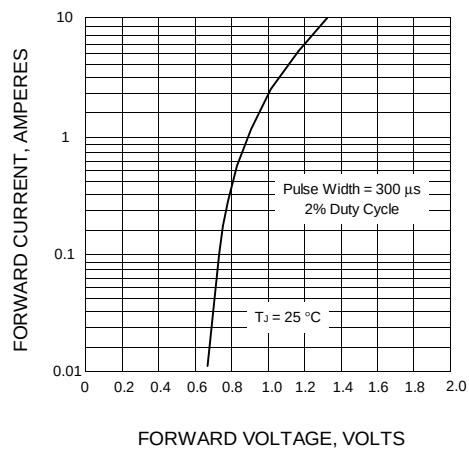


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

