DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MB05S THRU MB10S

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE MINI SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 0.8 Ampere*

FEATURES

* Surge overload rating - 30 Amperes peak
* Ideal for printed circuit board
* Reliable low cost construction
* Glass passivated junction

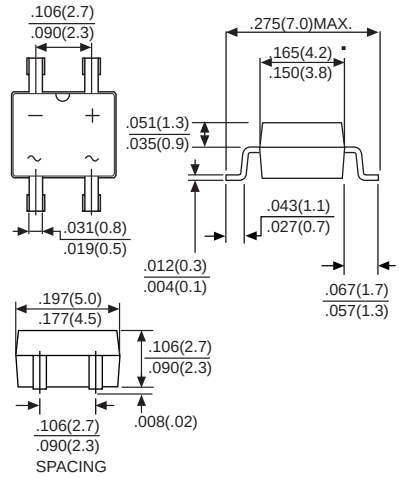
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any
* Weight: 0.13 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MBS



Dimensions in inches and (millimeters)

		SYMBOL	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at T_A = 40 °C (Note 1)		I_O	0.8							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	25							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.8A DC		V_F	1.1							Volts
Maximum Reverse Current at rated	@T_A = 25°C	I_R	5.0							μAmps
DC Blocking Voltage per element	@T_A = 125°C		500							
Typical Junction Capacitance (Note 2)		C_J	15							pF
Typical Thermal Resistance (Note 3)		$R_{\theta JC}$	75							°C/W
Operating and Storage Temperature Range		$T_{J,TSTG}$	-50 to + 150							°C

NOTES: 1. Mounted on P.C. board.
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to case.

RATING AND CHARACTERISTIC CURVES (MB05S THRU MB10S)

FIG.1
FORWARD CURRENT DERATING CURVE

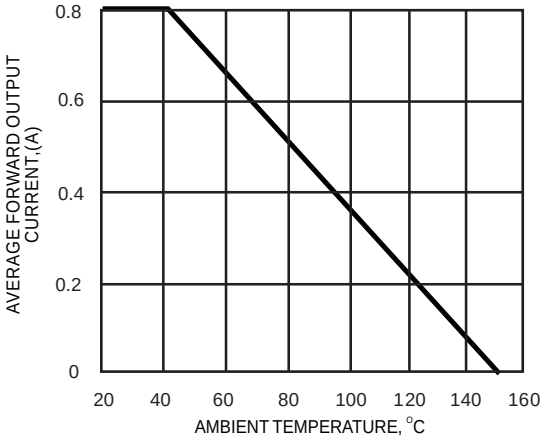


FIG.2
MAXIMUM NON-REPETITIVE SURGE CURRENT

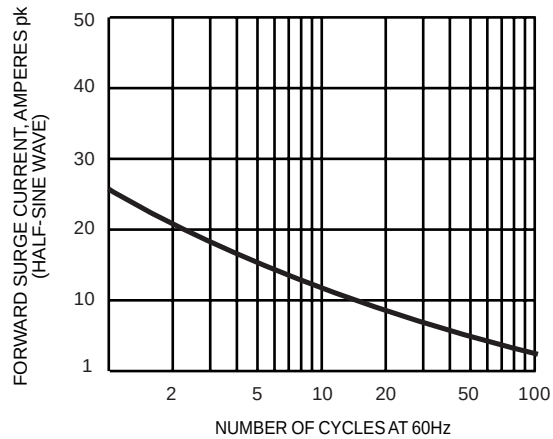


FIG.3
TYPICAL FORWARD CHARACTERISTICS

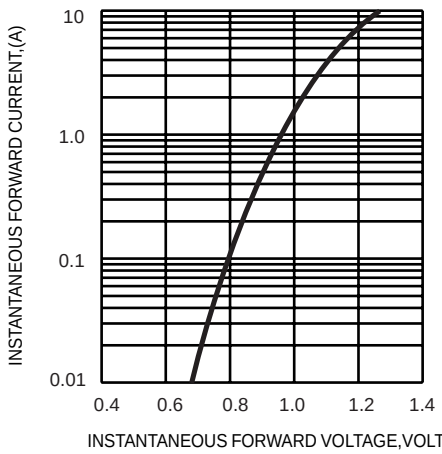


FIG.4
TYPICAL REVERSE CHARACTERISTICS

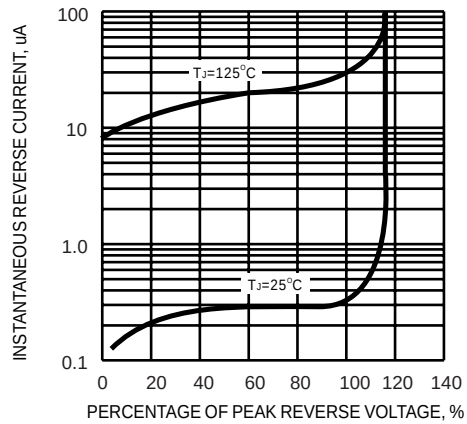


FIG. 5
TYPICAL JUNCTION CAPACITANCE