

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## MB05S THRU MB10S

Product specification

## Features

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260。 /10 seconds at 5 lbs., (2.3kg) tension
- Small size, simple installation
- High surge current capability

## Mechanical Data

**Case** : JEDEC MBS Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750,Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.008 ounce, 0.22 grams

## Maximum Ratings And Electrical Characteristics

Ratings at 25。 C ambient temperature unls otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Marking Code									
Maximum repetitive 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 rectified current at $T_c=30^{\circ}C$ On glass-epoxy P.C.B. On aluminum substrate	$I_{F(AV)}$				0.5				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$				30				A
Maximum instantaneous forward voltage drop per leg at=0.4A	$V_F$				1.0				V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	$I_R$				5				$\mu A$ mA
Typical junction capacitance (Note 3)	$C_J$				13				PF
Typical thermal resistance	$R_{\theta JC}$				70				$^{\circ}C/W$
Operating temperature range	$T_J$				-55 to +150				$^{\circ}C$
storage temperature range	$T_{STG}$				-55 to +150				$^{\circ}C$

### NOTES:

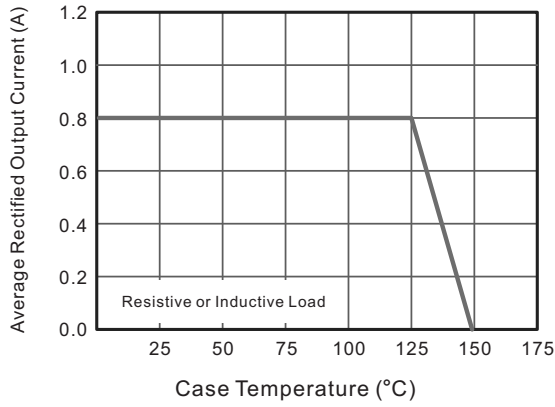
1. On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads

2. On aluminum substrate P.C.B. with on area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad

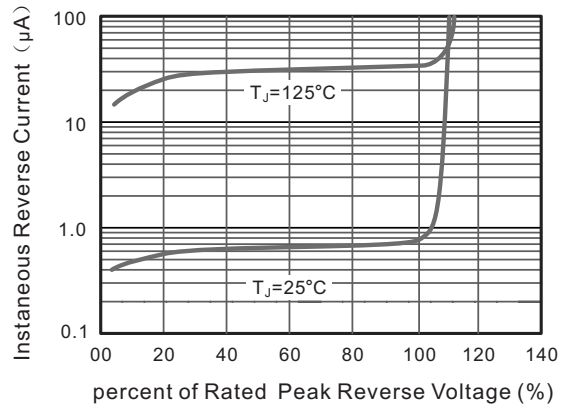
3. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

**Ratings And Characteristic Curves**

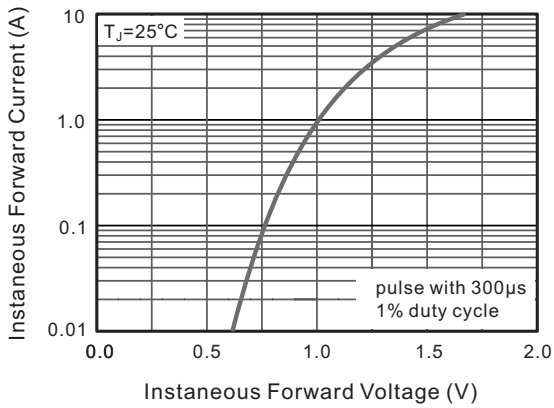
**Fig.1 Average Rectified Output Current Derating Curve**



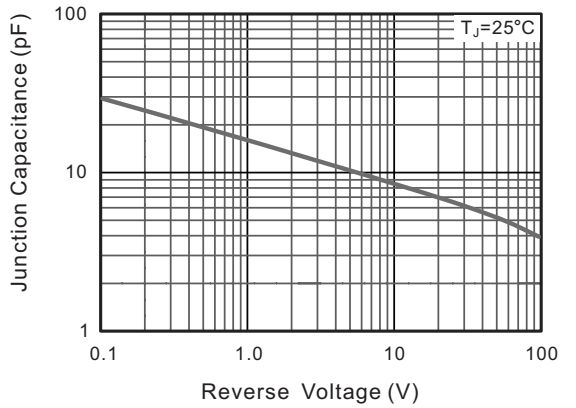
**Fig.2 Typical Reverse Characteristics**



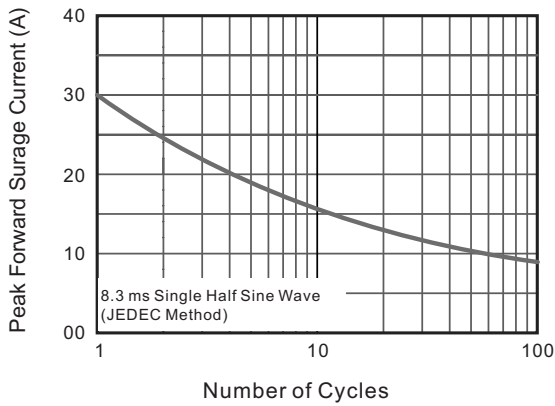
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**

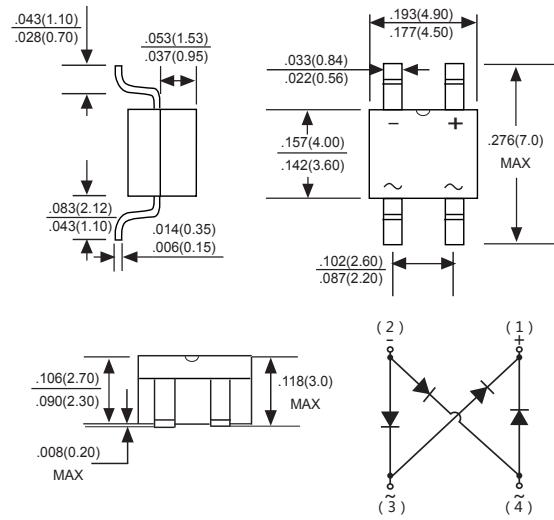


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



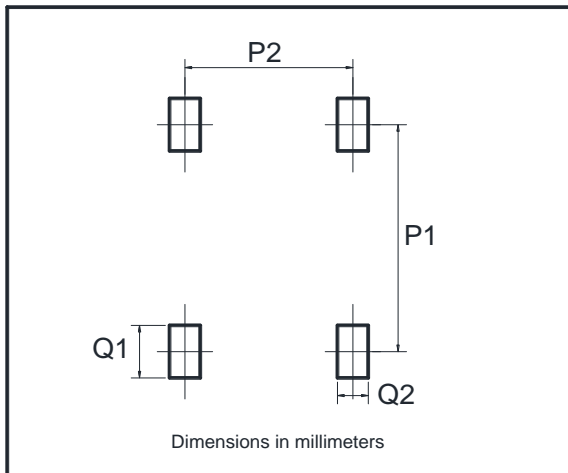
The curve above is for reference only.

**PACKAGE MECHANICAL DATA**



Dimensions in inches and (millimeters)

**Suggested Pad Layout**



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20

**REEL SPECIFICATION**

P/N	PKG	QTY
MB05S THRU MB10S	MBS	3000

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