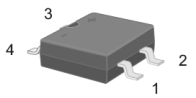
MB005S~MB10S

Surface Mount Bridge Rectifier

Reverse Voltage - 50 to 1000 V
Forward Current - 0.8 A

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



MBS Package

Features

- Glass Passivated Chip Junction
- High Surge Current Capability

Mechanical Data

- **Case:** MBS, molded plastic.
- **Terminals:** Solderable per MIL-STD-750, Method 2026

Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	MB005S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	Units
	Marking	MB005S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	-
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	$I_{F(AV)}$	0.8							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	35							A
Maximum Instantaneous Forward Voltage at 0.4 A	V_F	1							V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 100 °C	I_R	5 100							μA
Typical Junction Capacitance [1]	C_J	13							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$ $R_{\theta JC}$	80 28							℃/W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	- 55 to + 150							℃

[1] Measured at 1MHz and applied reverse voltage of 4 V D.C.

[2] Mounted on glass epoxy PC board with 1.3 × 1.3 mm copper pad.

Dated: 22/02/2021 JD Rev: 02

Electrical Characteristics Curves

Fig.1 Average Rectified Output Current Derating Curve

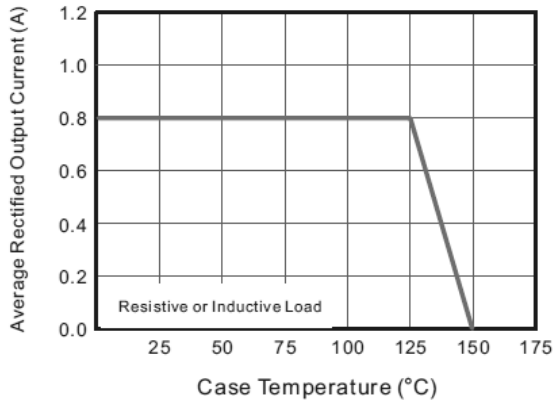


Fig.2 Typical Reverse Characteristics

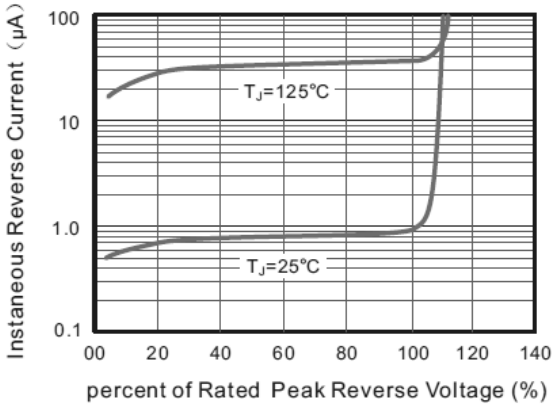


Fig.3 Typical Instaneous Forward Characteristics

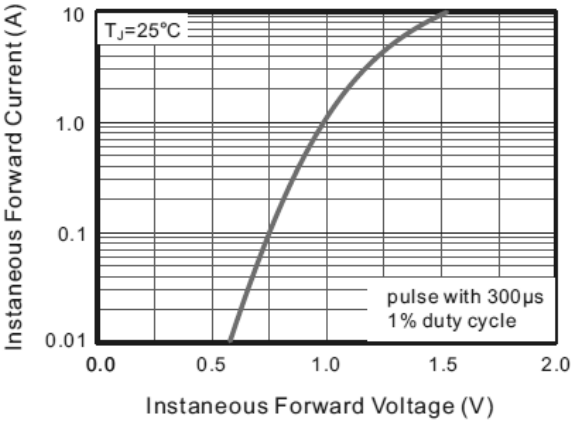


Fig.4 Typical Junction Capacitance

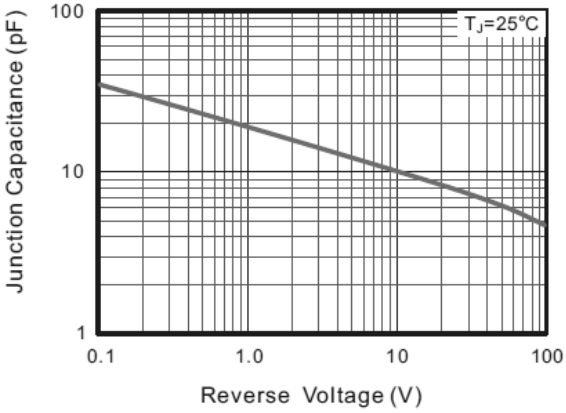
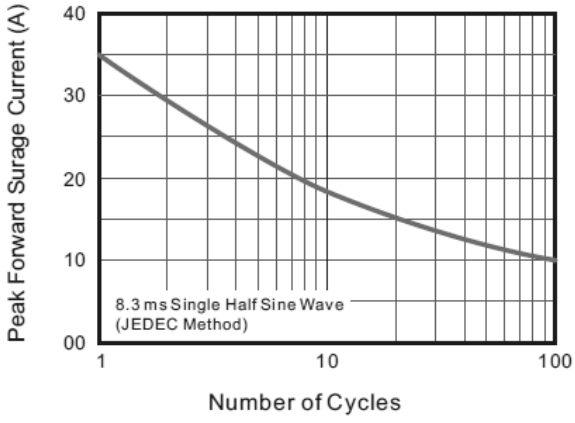
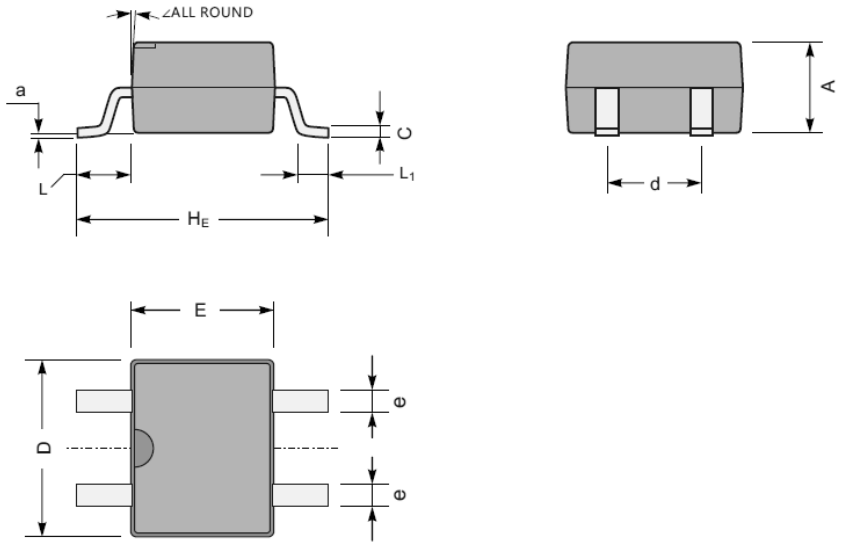


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



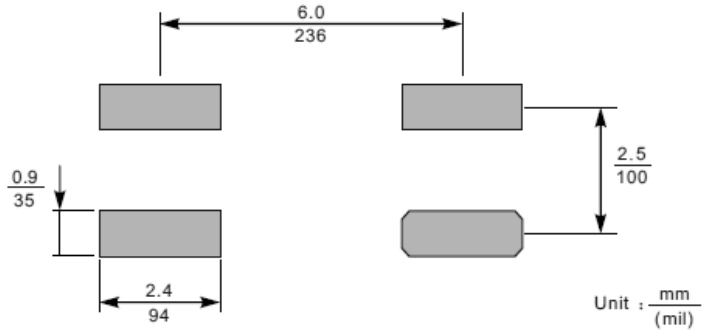
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads MBS



UNIT	A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	2.6 2.2	0.22 0.15	5.0 4.5	4.1 3.6	7.0 0.5	2.7 2.3	0.7 0.5	1.7 1.3	1.1 0.5	0.2	7°

Recommended Soldering Footprint



Marking information

" ***** " = Part No.

" YYWW " = Date Code Marking

" Y " = Year (ex: 19 = 2019)

" W " = Week (ex: 09 = the 9th week of the year)

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