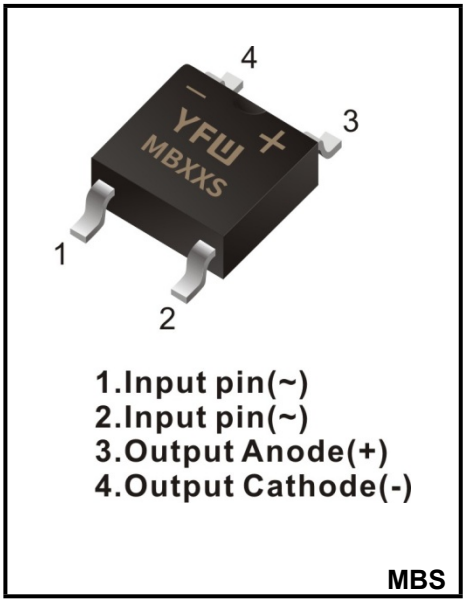
0.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER Reverse Voltage - 100 to 1000 V

Forward Current – 0.5A



FEATURES

- High current capability
- Low forward voltage drop
- Glass Passivated Chip Junction
- Low power loss, high efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: MBS
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 100mg /0.0035oz

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 current derate by 20 %.

Parameter	Symbols	MB1S-05	MB2S-05	MB4S-05	MB6S-05	MB8S-05	MB10S-05	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at T_c = 125 °C	I_o	0.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	20						A
Forward Voltage per element at 0.5A	V_F	1.1						V
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=125°C	I_R	5 40						μA
Typical Junction Capacitance (Note1)	C_j	11						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$/ $R_{\theta JC}$	115/35						°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

（1）Measured at 1 MHz and applied reverse voltage of 4 V D.C

（2）Mounted on glass epoxy PC board with 4×1.5"×1.5"（3.81×3.81 cm） copper pad.

Fig.1 Average Rectified Output Current Derating Curve

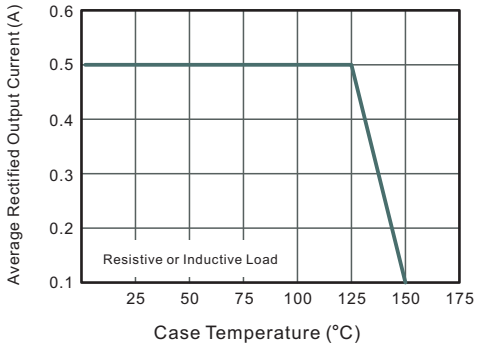


Fig.2 Typical Reverse Characteristics

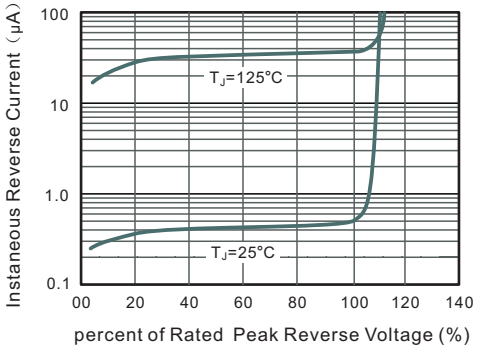


Fig.3 Typical Instaneous Forward Characteristics

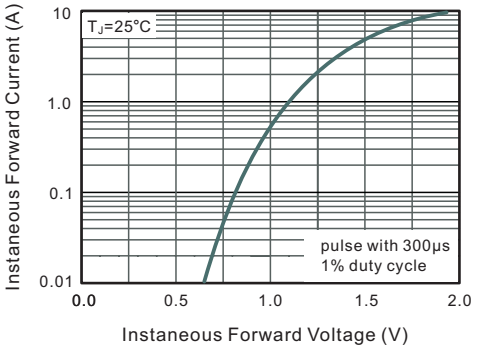


Fig.4 Typical Junction Capacitance

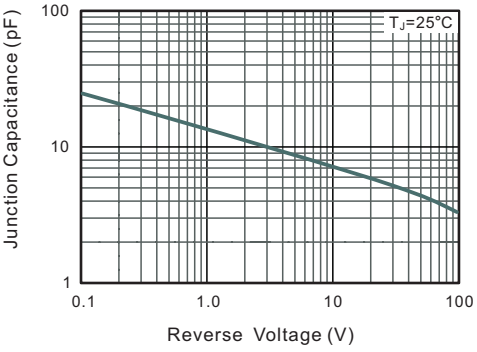
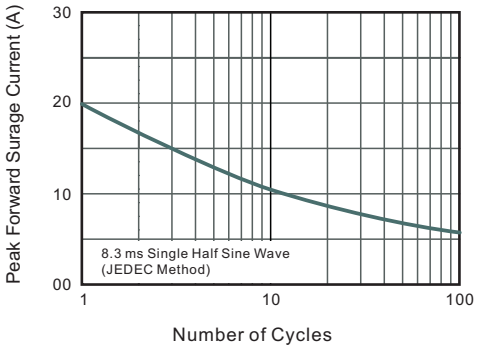
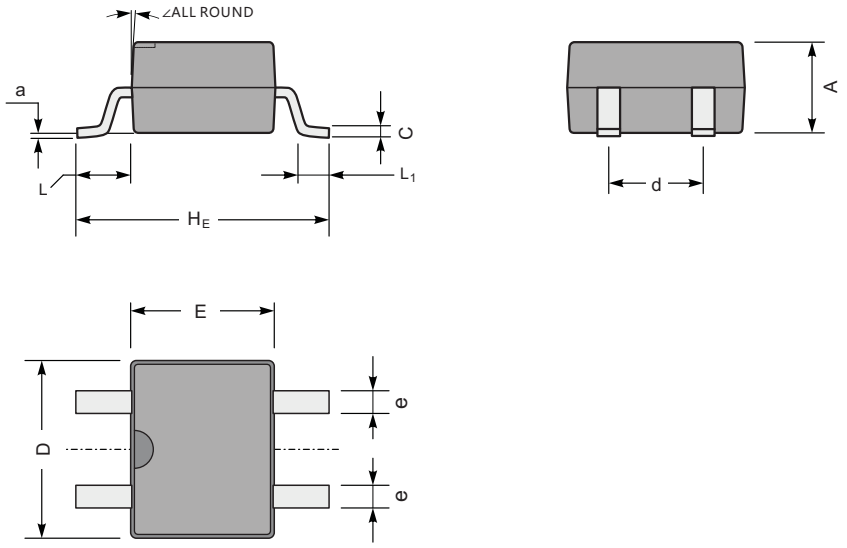


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



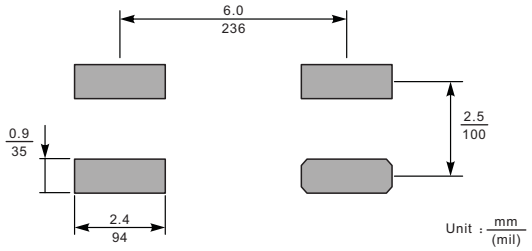
Package Outline MBS

Plastic surface mounted package; 4 leads



UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	2.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	min	2.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	102	8.7	197	161	276	106	28	67	43	8	
	min	94	5.9	177	142	252	91	20	51	20	—	

The recommended mounting pad size



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
MBS	Tape/Reel,13"reel	3000	EIA-481-1