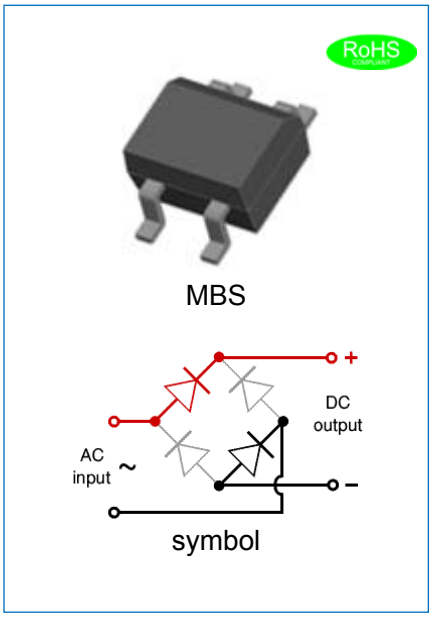
MB2S~MB10S

GLASS PASSIVATED BRIDGE RECTIFIERS

Rev.4.3



DESCRIPTION:

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Glass passivated chip junction
- ✧ Lead tin plated copper
- ✧ Ideal for automatic placement
- ✧ High surge forward current capability
- ✧ Reliable low cost construction utilizing molded plastic technique
- ✧ General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

MECHANICAL DATA

- ✧ Case: MBS molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Polarity symbol marking on body.
- ✧ Weight:0.12gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified.)

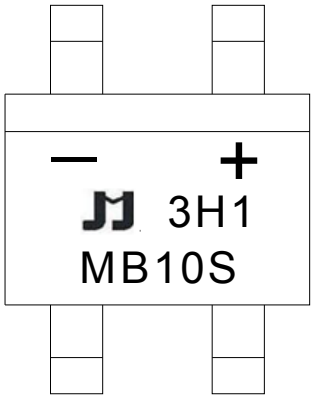
Parameter		Symbol	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage		V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	200	400	600	800	1000	V
Average rectified output current at T_A=40℃		I_O	1.0					A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30					A
Maximum forward voltage per diode @I_F=1.0A		V_F	1.1					V
Maximum DC reverse current at rated DC blocking voltage per diode	T_j=25℃	I_R	5					μA
	T_j=125℃		500					μA
Typical junction capacitance V_R=4.0V, f=1MHz		C_J	15					pF
Operating junction and storage temperature range		T_J,T_{STG}	-55 to +150					℃

THERMAL RESISTANCES

Symbol	Parameter	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	75					℃/W

Note1：On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3 mm) pads.

MARKING



MB	MB Series
10	V_{RRM}:1000V
S	Package: MBS

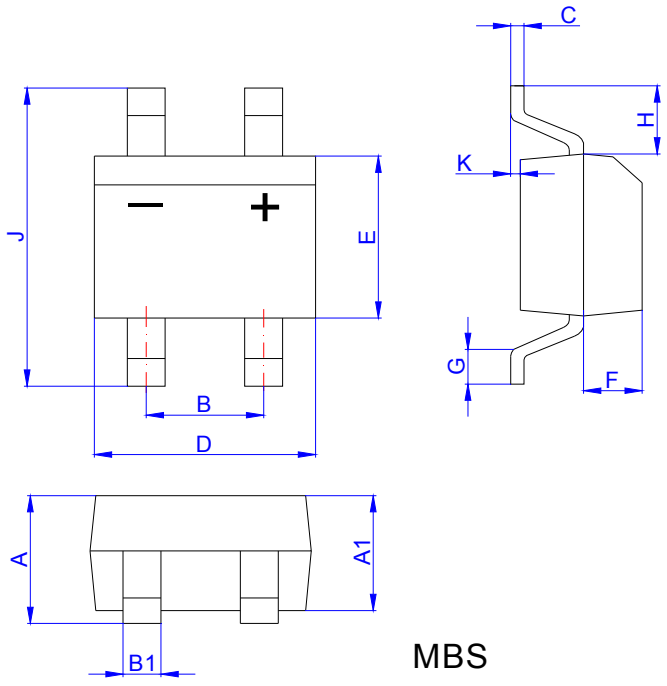
xH1：Month，1、2、3 ～ 9、A、B、C

3x1：

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	…
O	P	Q	R	S	T	…

3Hx：Batch number

PACKAGE MECHANICAL DATA



MBS

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A		3.00		0.118
A1	2.30	2.70	0.091	0.106
B	2.20	2.60	0.087	0.102
B1	0.56	0.84	0.022	0.033
C	0.15	0.35	0.006	0.014
D	4.50	4.90	0.177	0.193
E	3.60	4.00	0.142	0.157
F	0.95	1.53	0.037	0.060
G	0.70	1.10	0.028	0.043
H	1.10	2.12	0.043	0.083
J		7.00		0.276
K		0.20		0.008

PACKAGE INFORMATION-MBS

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.12	3,000	48,000	330

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

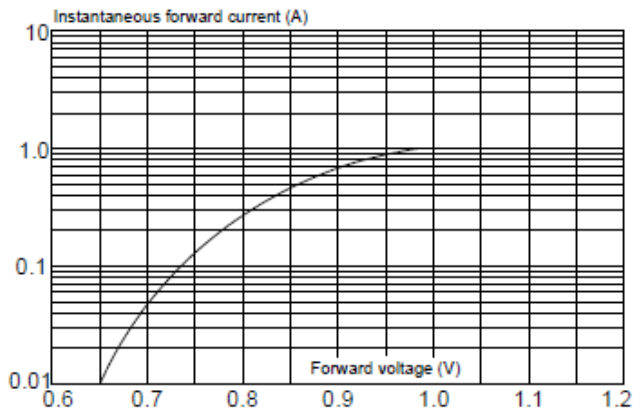


FIG.2: Typical reverse characteristics

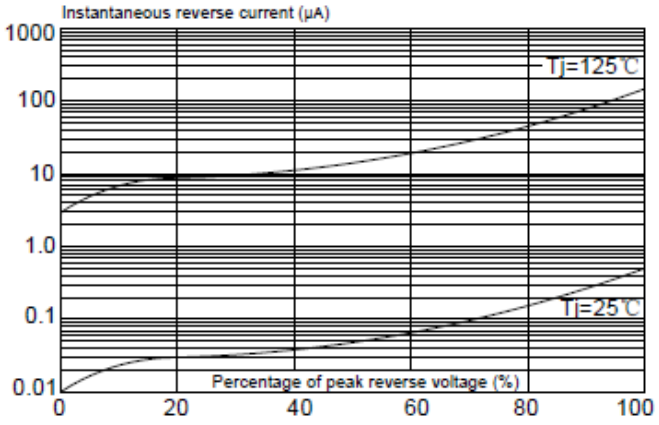


FIG.3: Maximum non-repetitive peak forward surge current

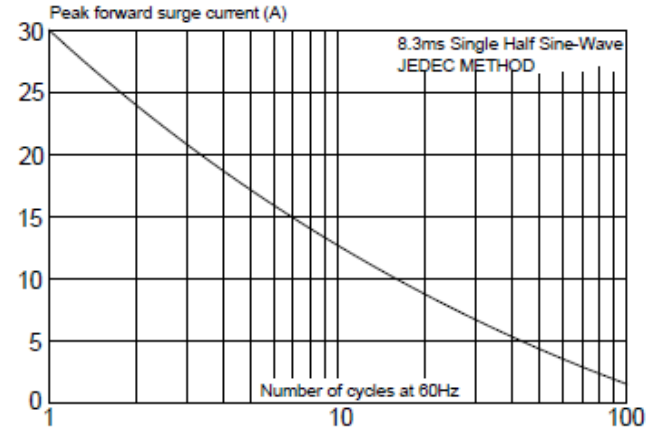
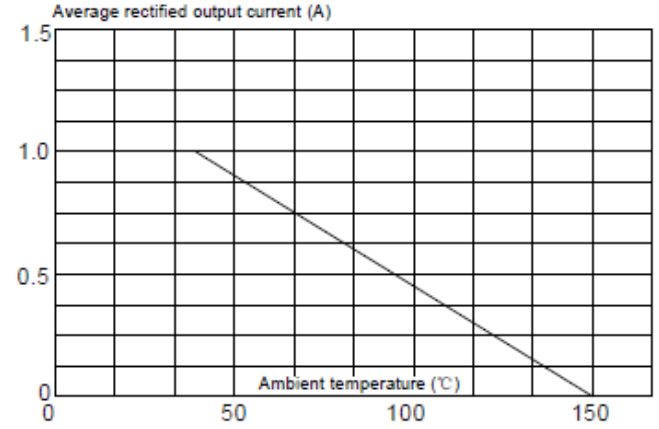


FIG.4: Average rectified output current derating curve



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