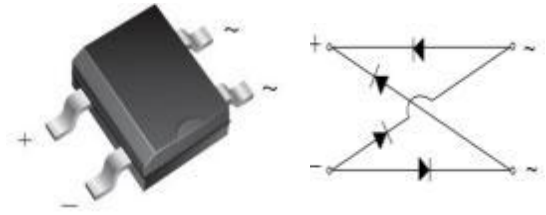


Reverse Voltage 200~1000V Output Current 0.5A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- High surge overload rating: 30A peak
- Saves space on printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds
- Add suffix "E" for Halogen Free



MB

Typical Applications

- General purpose use in ac-to-dc bridge full wave rectification for TV, Monitor, SMPS, Adapter, Printer, Audio equipment, and Home Applications application

Mechanical Data

- Case: Molded plastic body over passivated junctions
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any

Maximum Ratings (TA = 25 °C unless otherwise noted)							
Parameter	Symbol	MB2ST	MB4ST	MB6ST	MB8ST	MB10ST	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 forward rectified output current ⁽¹⁾	On Glass-epoxy P.C.B	0.5 ⁽¹⁾					A
	On aluminum substrate	0.8 ⁽²⁾					
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30					A
Rating for fusing (t ≤ 8.3ms)	I ² t	4					A ² s
Operating junction and storage temperature range	T _J , T _{STG}	-55 to 150					°C
Typical junction capacitance per at 4.0V, 1.0MHz	C _j	13					pF

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	MB2ST	MB4ST	MB6ST	MB8ST	MB10ST	Unit
Maximum instantaneous forward voltage	IF=0.4A	VF	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5.0					µA
	TA=125°C		100					
Typical thermal resistance ⁽¹⁾		RθJA	85 ⁽¹⁾					°C/W
		RθJA	70 ⁽²⁾					
		RθJL	20 ⁽¹⁾					

Note:1. On glass epoxy P.C.B. mounted on 0.05×0.05"(1.3×1.3mm) pads

2. On aluminum substrate P.C.B. whthan area of 0.8×0.8" (20×20mm) mounted on 0.05×0.05"(1.3×1.3mm) solder pad

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

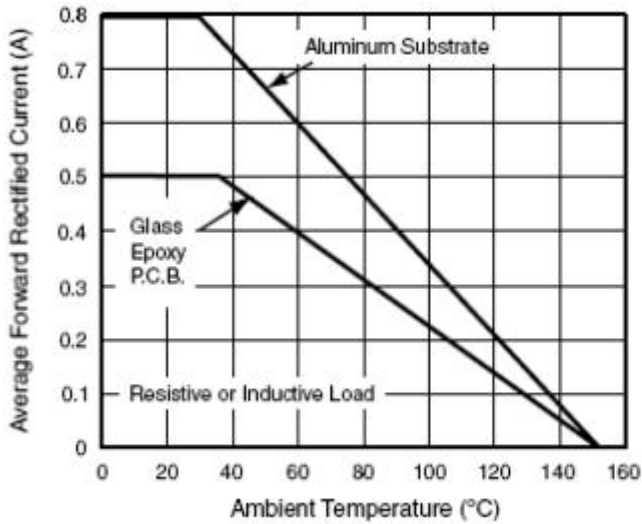


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

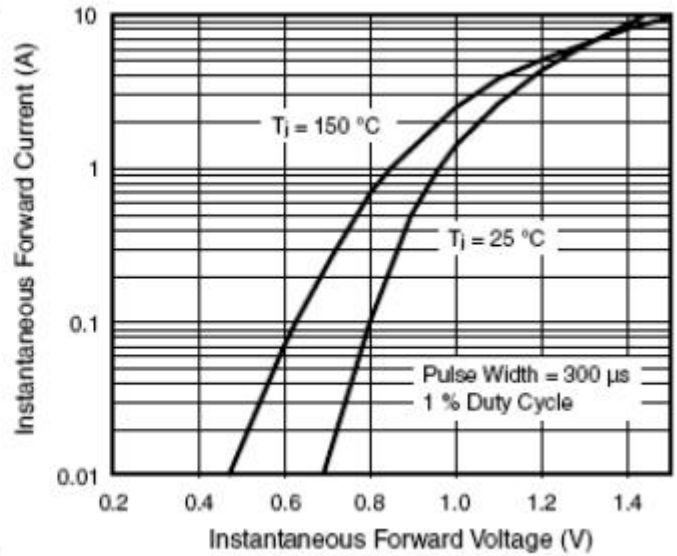


FIG.3 TYPICAL RESERVE LEAKAGE CHARACTERISTICS PER DIODE

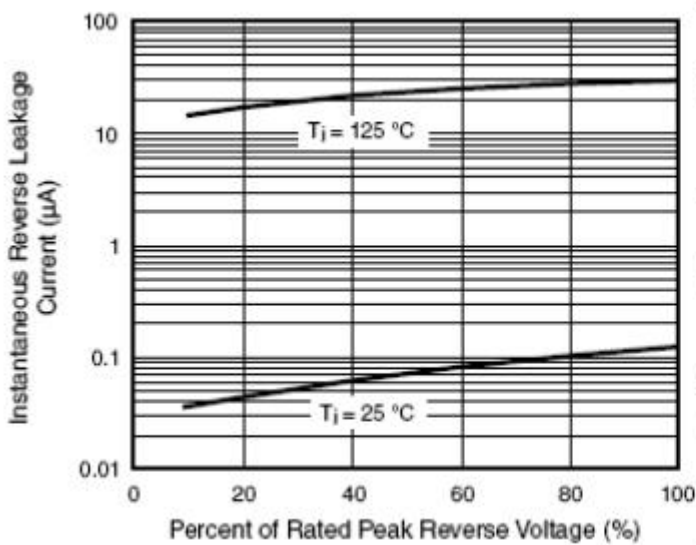
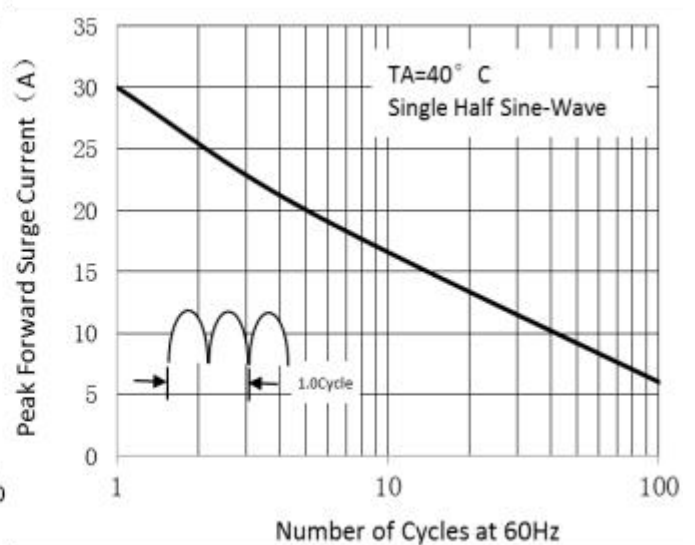


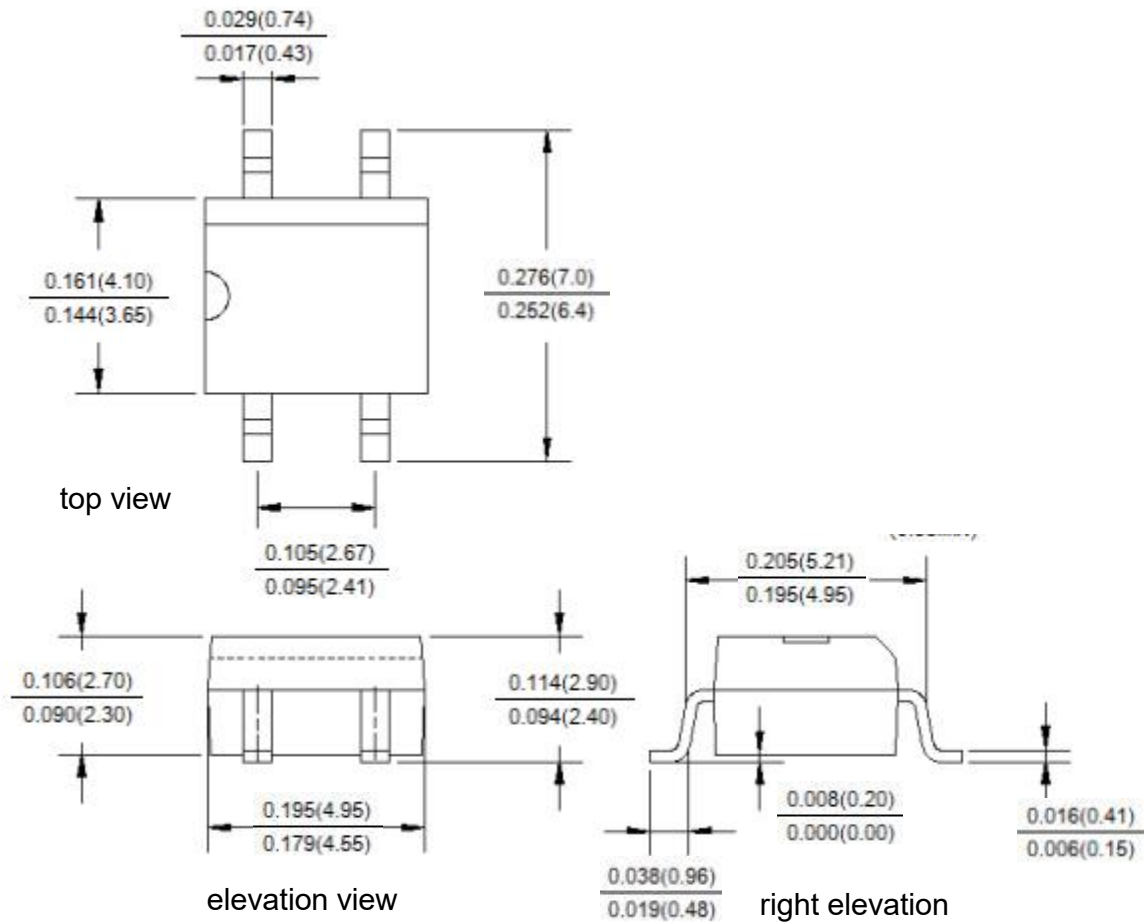
FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



Package Outline Dimensions

Unit: inches(mm)

First angle projection



Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/1	Released Datasheet
Rev.B	2023/12/8	Modify document format

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