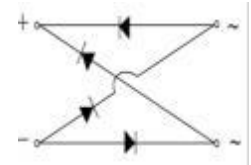


Reverse Voltage 200~1000V Output Current 0.5A

Features

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



MBS

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	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 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 ($t \leq 8.3ms$)	I^2t	3.75					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	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum instantaneous forward voltage	I _F =0.4A	V _F	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage	T _A =25°C	I _R	5.0					μA
	T _A =125°C		100					
Typical thermal resistance ⁽¹⁾		R _{θJA}	85 ⁽¹⁾					°C/W
		R _{θJA}	70 ⁽²⁾					
		R _{θJL}	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. with an 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

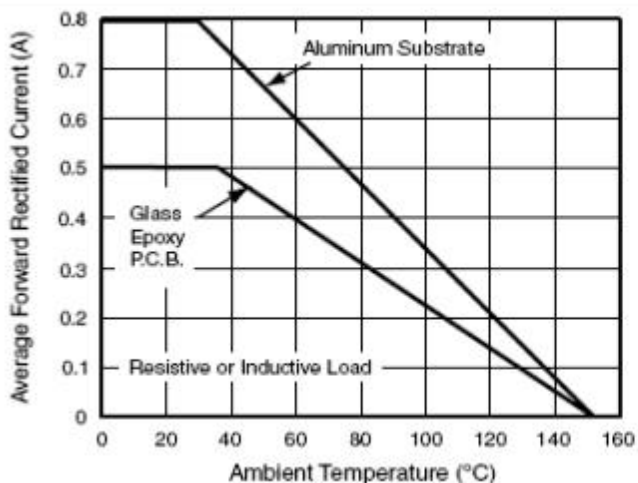


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

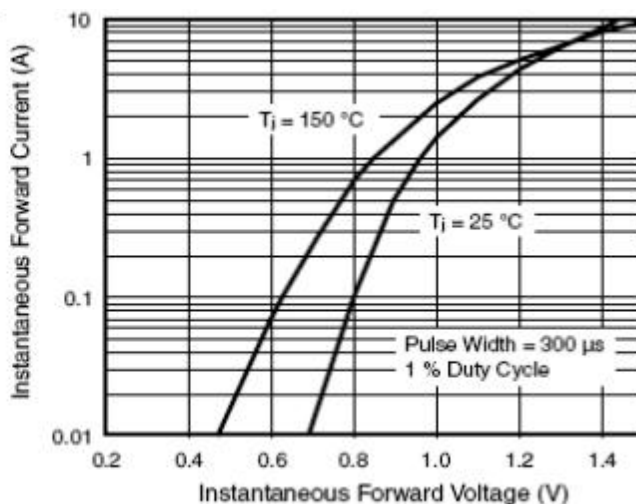


FIG.3 TYPICAL RESERVE LEAKAGE CHARACTERISTICS PER DIODE

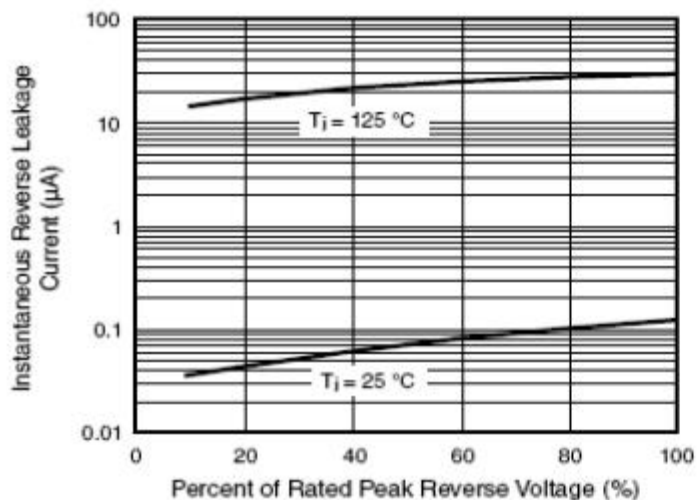
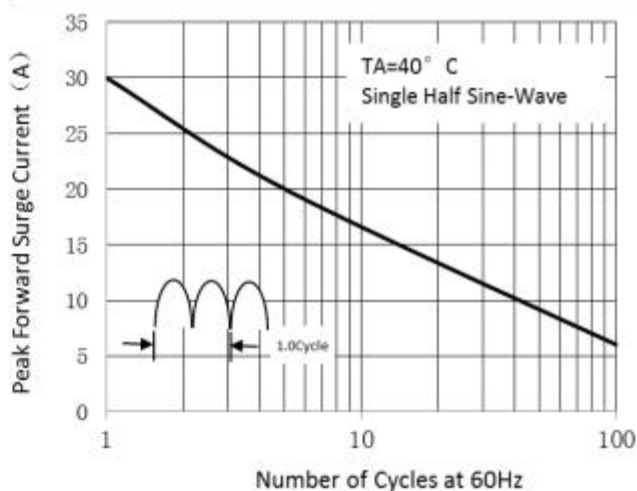


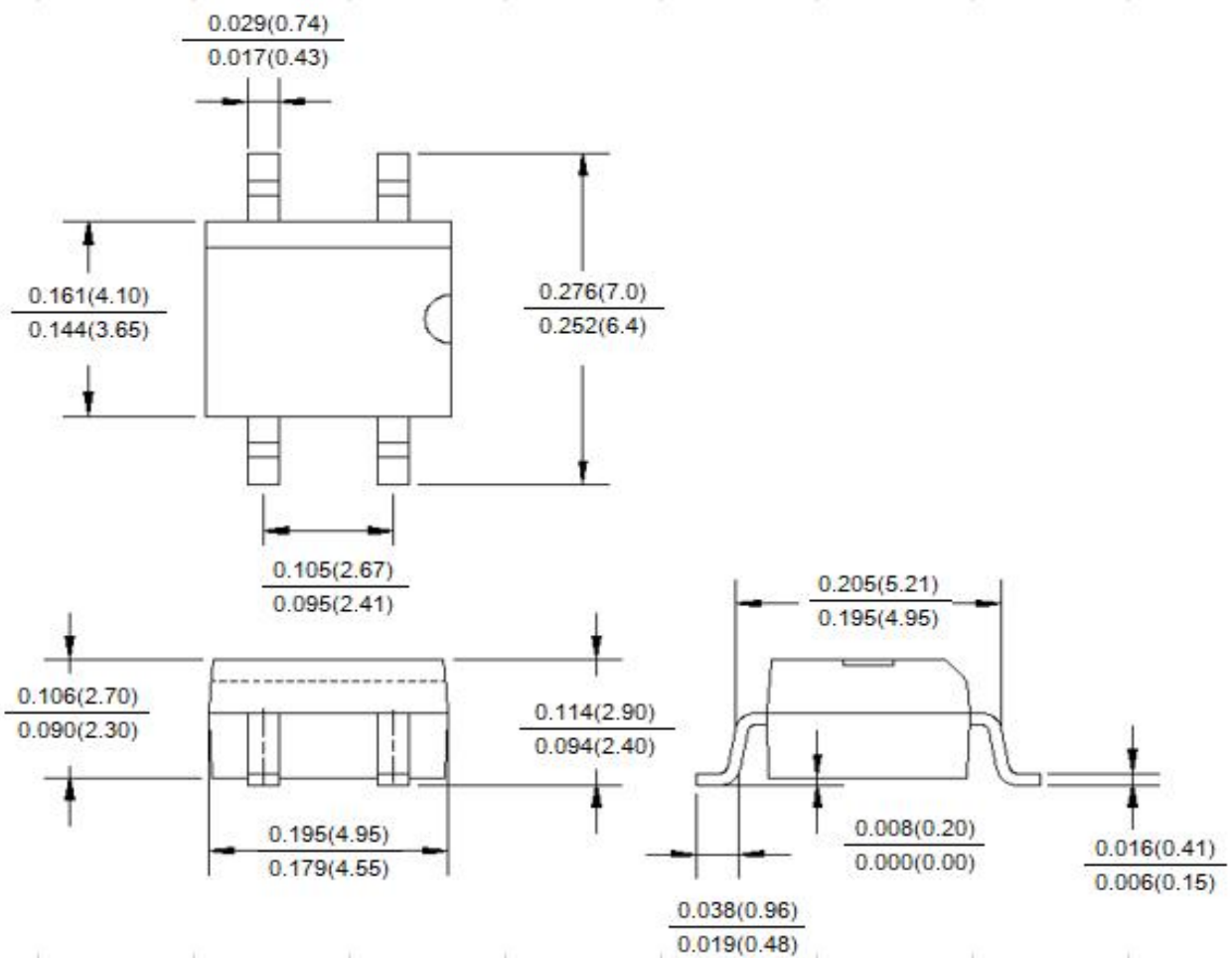
FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



Package Outline Dimensions

Unit: inches(mm)

First angle projection



elevation view

right elevation

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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