



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MFB1AS
THRU
MFB1JS

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SUPER FAST BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 600 Volts

CURRENT - 1.0 Ampere

FEATURES

- * High surge current capability
- * Ideal for printed circuit board
- * Glass passivated junction

MECHANICAL DATA

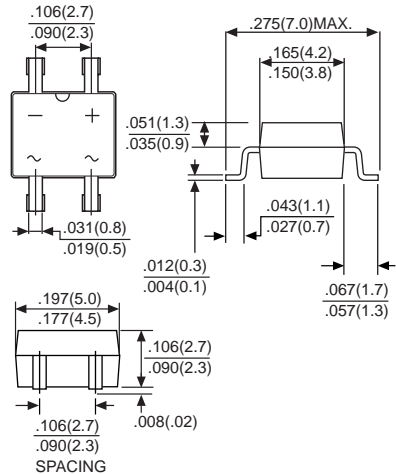
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.08 gram

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, derate current by 20%.



MBS



Dimensions in inches and (millimeters)

	SYMBOL	MFB1AS	MFB1BS	MFB1DS	MFB1GS	MFB1JS	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	Volts
Maximum Average Forward Output Current at TA=50°C (Note 1)	Io	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30					Amps
Maximum DC Forward Voltage Drop per Bridge Element at 1.0A DC	VF	1.0			1.3	1.7	Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	IR	50					μAmps
	@TA = 125°C	5.0					
Maximum Reverse Recovery Time (Note 4)	trr	35					nS
Typical Junction Capacitance (Note 2)	CJ	13					pF
Typical Thermal Resistance (Note 3)	RθJA	85					°C/W
Operating and Storage Temperature Range	TJ, TSTG	-50 to + 150					°C

- NOTES: 1. Mounted on P.C. board with 4x(5x5mm²) copper pad.
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient.
4. Measured with IF = 0.5 A, IR = 1 A, Itr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (MFB1AS THRU MFB1JS)

FIG. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

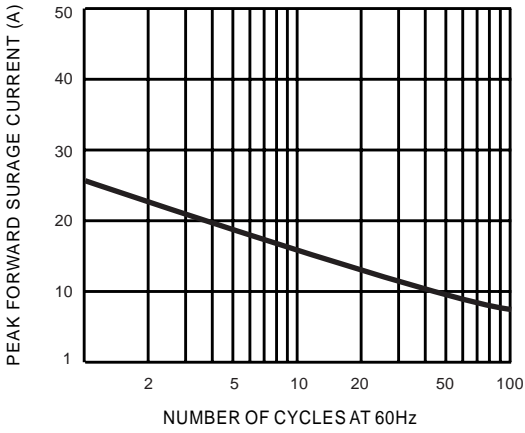


FIG. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

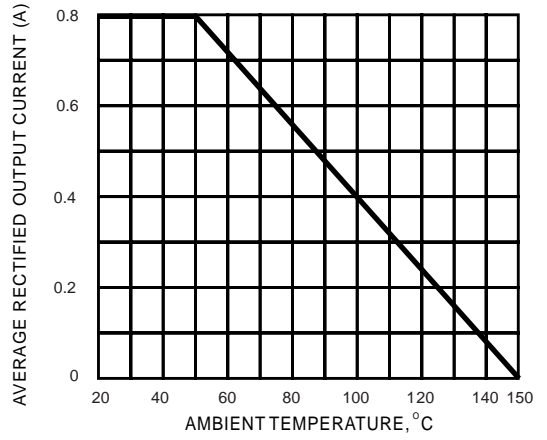


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

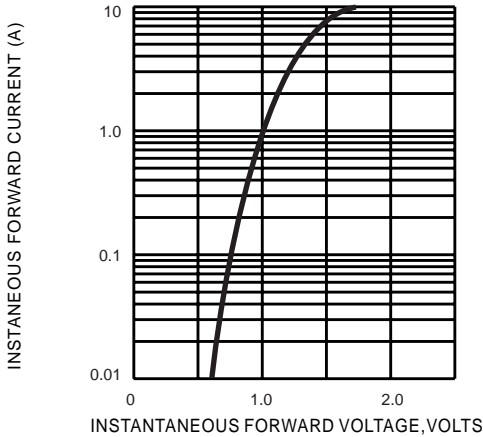


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

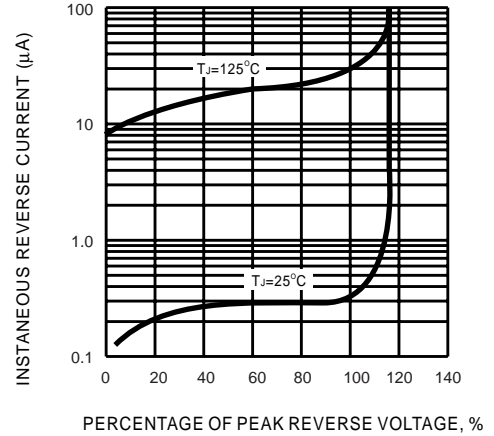
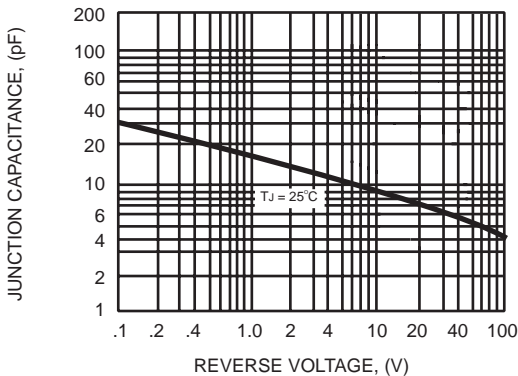


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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