



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**MBK32S
THRU
MBK320S**

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

VOLTAGE RANGE - 20 to 200 Volts

CURRENT - 3.0 Amperes

FEATURES

- *High surge current capability
- * Ideal for printed circuit board

MECHANICAL DATA

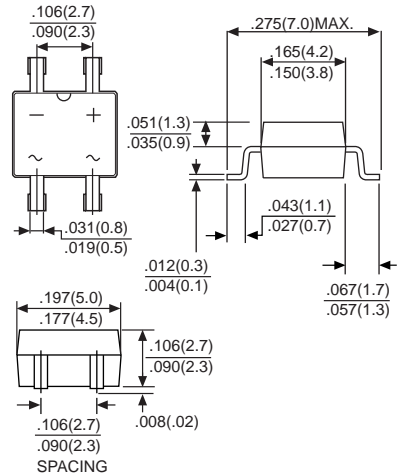
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.1 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MBS



Dimensions in inches and (millimeters)

	SYMBOL	MBK32S	MBK34S	MBK36S	MBK38S	MBK310S	MBK315S	MBK320S	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	150	200	Volts	
Maximum RMS Bridge Input Voltage	V _{RMS}	14	28	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	150	200	Volts	
Maximum Average Forward Output Current at TA=75°C (Note 1)	I _O	3.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	40			30				Amps	
Maximum DC Forward Voltage Drop per Bridge Element at 3.0A DC	V _F	0.55		0.70	0.85		0.95		Volts	
Maximum Reverse Current at rated DC Blocking Voltage per element	I _R	@ TA = 25°C			0.2		0.1		mAmps	
		@ TA = 125°C			10					
Typical Junction Capacitance (Note 2)	C _J	250								pF
Typical Thermal Resistance (Note 3)	R _{θJA}	60								°C/W
Operating and Storage Temperature Range	T _{J,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.

RATING AND CHARACTERISTIC CURVES (MBK32S THRU MBK320S)

FIG. 1
MAXIMUM NON-REPETITIVE SURGE CURRENT

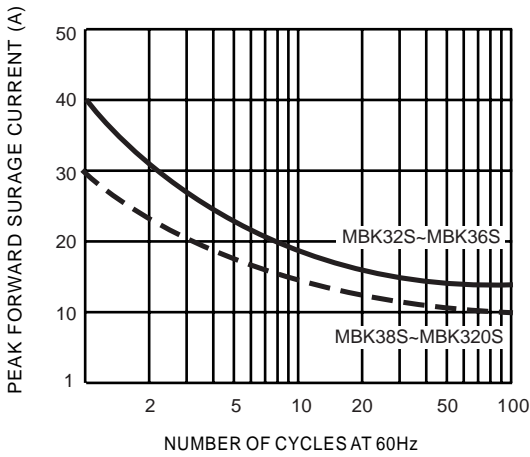


FIG. 2
DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

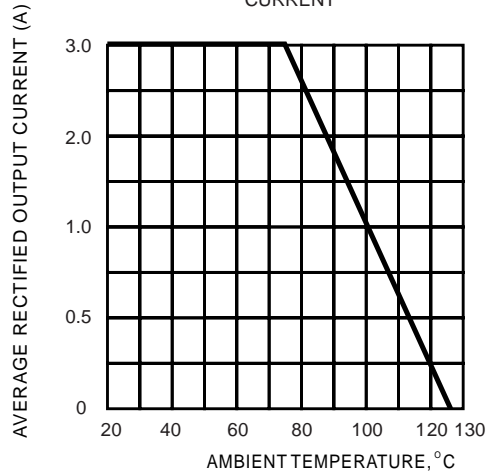


FIG. 3
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

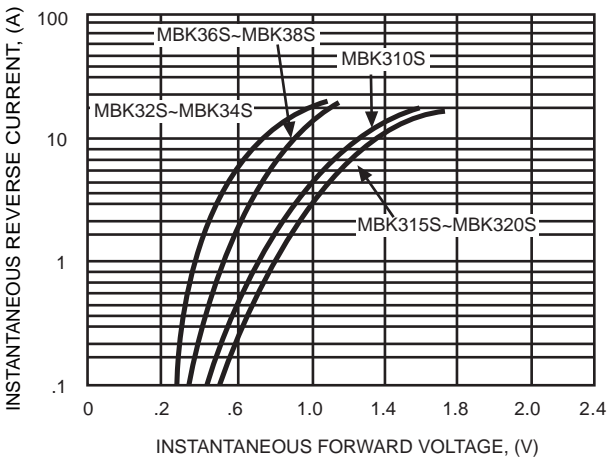
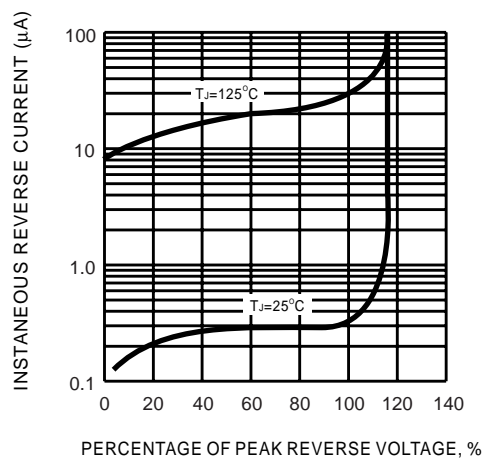


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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