



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MBK12F
THRU
MBK120F

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

VOLTAGE RANGE - 20 to 200 Volts

CURRENT - 1.0 Ampere

FEATURES

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

MECHANICAL DATA

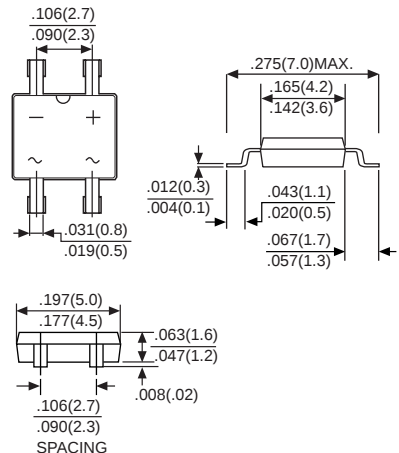
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.075 gram

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%.



MBF



Dimensions in inches and (millimeters)

		SYMBOL	MBK12F	MBK14F	MBK16F	MBK18F	MBK110F	MBK115F	MBK120F	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	20	40	60	80	100	150	200	Volts
Maximum RMS Bridge Input Voltage		VRMS	14	28	42	56	70	105	140	Volts
Maximum DC Blocking Voltage		VDC	20	40	60	80	100	150	200	Volts
Maximum Average Forward Output Current at TA=75°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	40			30				Amps
Maximum DC Forward Voltage Drop per Bridge Element at 1.0A DC		VF	0.55		0.70	0.85		0.90		Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	@ TA = 25°C	IR	0.3			0.2		0.1		mAmps
	@ TA = 125°C		10							
Typical Junction Capacitance (Note 2)		CJ	110							pF
Typical Thermal Resistance (Note 3)		RθJA	115							°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.

RATING AND CHARACTERISTIC CURVES (MBK12F THRU MBK120F)

FIG. 1
MAXIMUM NON-REPETITIVE SURGE CURRENT

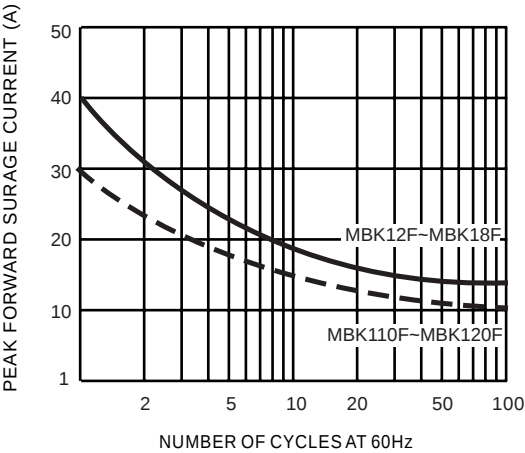


FIG. 2
DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

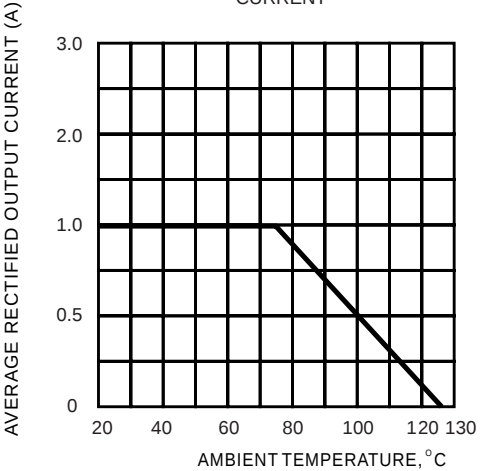


FIG. 3
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

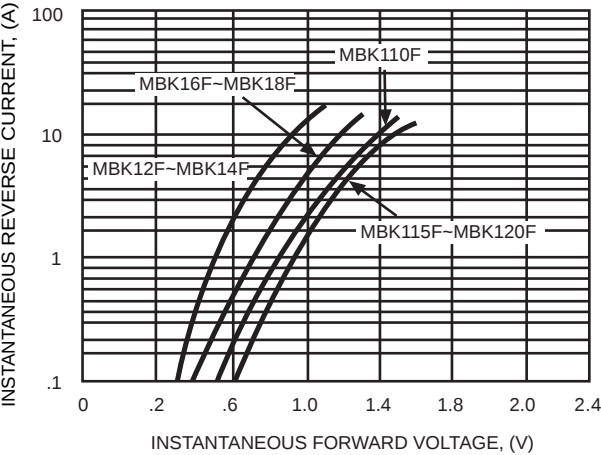


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

