



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**BK12F  
THRU  
BK110F**

**TECHNICAL SPECIFICATIONS OF SCHOTTKY SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER**

**VOLTAGE RANGE - 20 to 100 Volts**

**CURRENT - 1.0 Ampere**

**FEATURES**

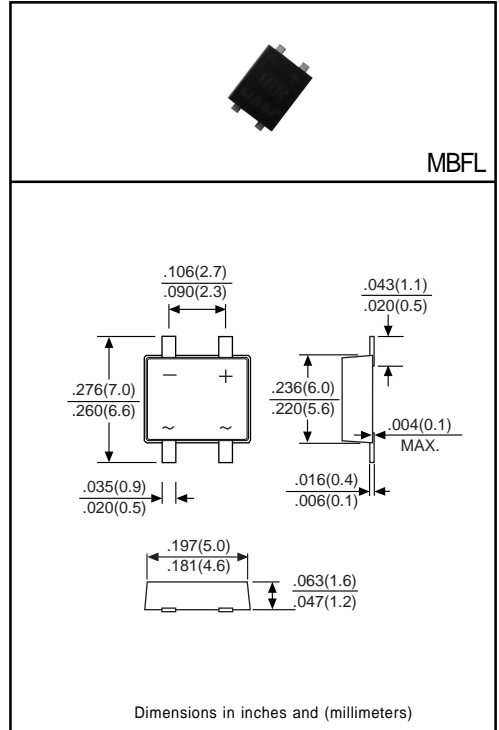
- \* Ideal for automated placement
- \* Low profile space
- \* Low forward voltage drop
- \* Low power losses
- \* High surge capability, high efficiency
- \* Ultrafast reverse recovery time

**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: 0.12 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%.



	SYMBOL	BK12F	BK14F	BK16F	BK18F	BK110F	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	14	28	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	Volts
Maximum Average Forward Output Current at T <sub>A</sub> = 30°C	I <sub>O</sub>	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30					Amps
Maximum DC Forward Voltage Drop per Bridge Element at 1.0A DC	V <sub>F</sub>	0.50	0.55	0.70	0.85		Volts
Maximum Reverse Current at rated	I <sub>R</sub>	0.5					μAmps
DC Blocking Voltage per element		20					
Typical Junction Capacitance ( Note1)	C <sub>J</sub>	250			125		pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	85					°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50 to + 150					°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.2 x 0.2" (5.0x5.0mm) copper pads.

# RATING AND CHARACTERISTIC CURVES (BK12F THRU BK110F)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT

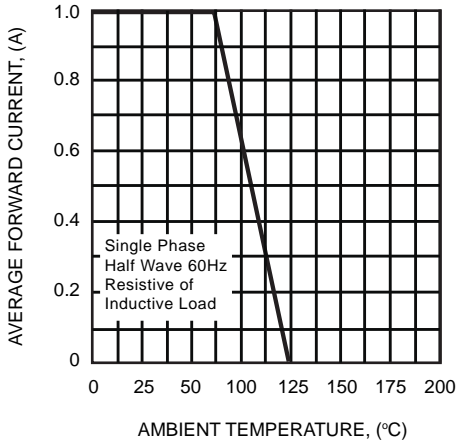


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

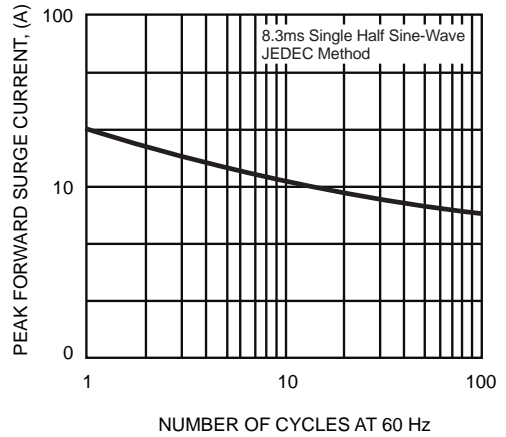


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

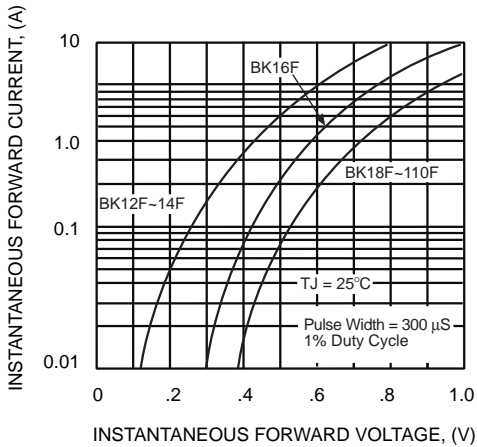
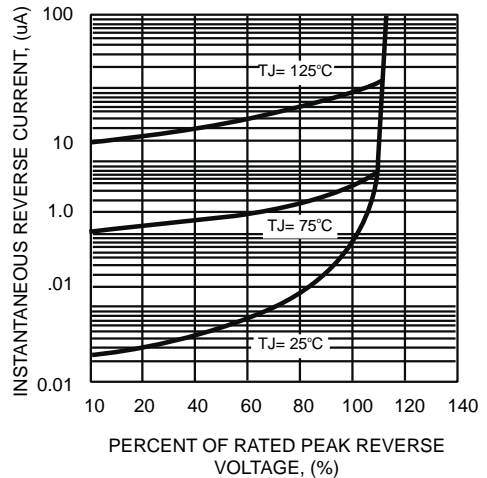


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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