

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BK22F THRU BK210F

TECHNICAL SPECIFICATIONS OF SCHOTTKY SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 20 to 100 Volts

CURRENT - 2.0 Ampere

FEATURES

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

MECHANICAL DATA

* Case: Molded plastic

* Epoxy: UL 94V-0 rate flame retardant

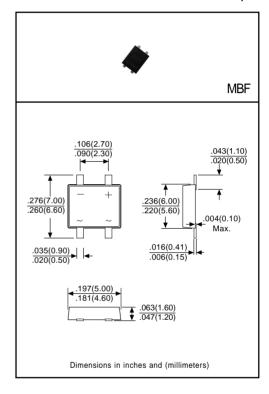
* Terminals: MIL-STD-202E, Method 208 guaranteed

* 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	BK22F	BK24F	BK26F	BK28F	BK210F	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	20	40	60	80	100	Volts
Maximum RMS Bridge Input Voltage		VRMS	14	28	42	56	70	Volts
Maximum DC Blocking Voltage		VDC	20	40	60	80	100	Volts
Maximum Average Forward Output Current at TA = 30°C		lo	2.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave		IFSM	50					Amps
superimposed on rated load (JEDEC Method)								
Maximum DC Forward Voltage Drop per Bridge		VF	0.50	0.55	0.70	0.85		Volts
Element at 2.0A DC								
Maximum Reverse Current at rated	@Ta = 25°C	- IR	0.5					μAmps
DC Blocking Voltage per element	@Ta = 125°C		20					
Typical Junction Capacitance (Note1)		CJ	250		125		pF	
Typical Thermal Resistance (Note 2)		RθJA	85					°C/W
Operating and Storage Temperature Range		TJ,TSTG	-50 to + 150					٥C

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 (KMB22F THRU KMB210F)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT 2.5 AVERAGE FORWARD CURRENT, (A) 2.0 1.5 1.0 Single Phase Half Wave 60Hz Resistive of 0.5 Inductive Load 0 0 25 50 100 125 150 175 200 AMBIENT TEMPERATURE, (°C)

FORWARD SURGE CURRENT

(A) 100

B.3ms Single Half Sine-Wave JEDEC Method

JEDEC Method

1 10 100

NUMBER OF CYCLES AT 60 Hz

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD **CHARACTERISTICS** INSTANTANEOUS FORWARD CURRENT, (A) 10 1.0 BK26F~210F BK22F~24F 0.1 = 25°C Pulse Width = 300 μS 1% Duty Cycle 0.01 0 .2 .8 1.0 INSTANTANEOUS FORWARD VOLTAGE, (V)

