



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

KBK10A THRU KBK10M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 10 Amperes

FEATURES

- * Low leakage
- * Low forward voltage
- * Surge overload rating: 170 Amperes peak
- * Ideal for printed circuit boards
- * High forward surge current capability

MECHANICAL DATA

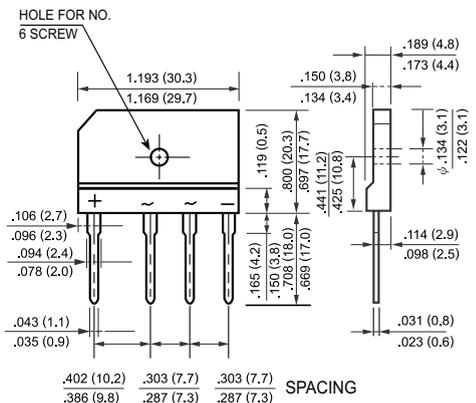
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 6.6 grams

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%.



KBK



Dimensions in inches and (millimeters)

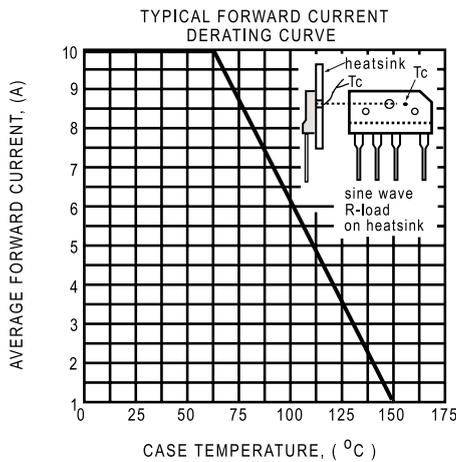
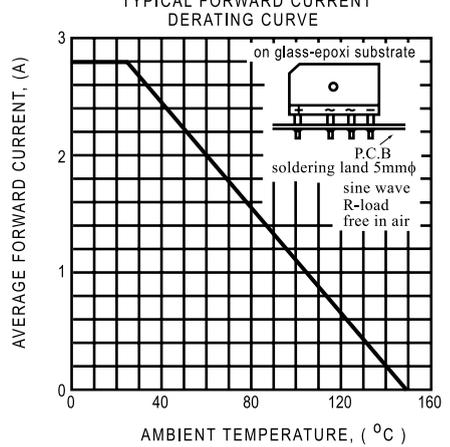
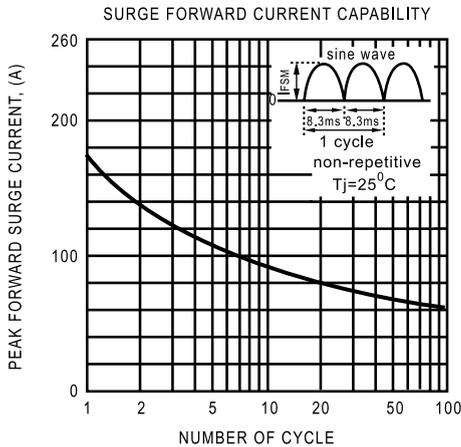
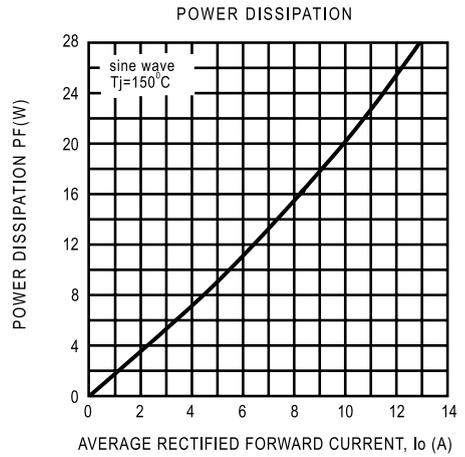
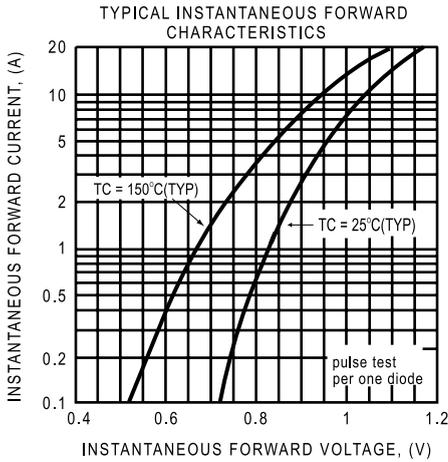
	SYMBOL	KBK10A	KBK10B	KBK10D	KBK10G	KBK10J	KBK10K	KBK10M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at $T_c = 75^\circ C$	I_o	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	170							Amps
Maximum Forward Voltage Drop per Element at 5.0A DC	V_F	1.1							Volts
Maximum DC Reverse Current at Rated	I_R	@ $T_A = 25^\circ C$							uAmps
DC Blocking Voltage per element		@ $T_A = 100^\circ C$							
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	120							A^2Sec
Typical Junction Capacitance (Note1)	C_J	55							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15							$^\circ C/W$
Operating Temperature Range	$T_J T_{STG}$	-55 to + 150							$^\circ C$

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

2. Thermal Resistance from Junction to Case per element Unit mounted on 300x300x1.6mm Aluminum plate heat-sink.

RATING AND CHARACTERISTIC CURVES

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