



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**KBK20A  
THRU  
KBK20M**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 20 Amperes

**FEATURES**

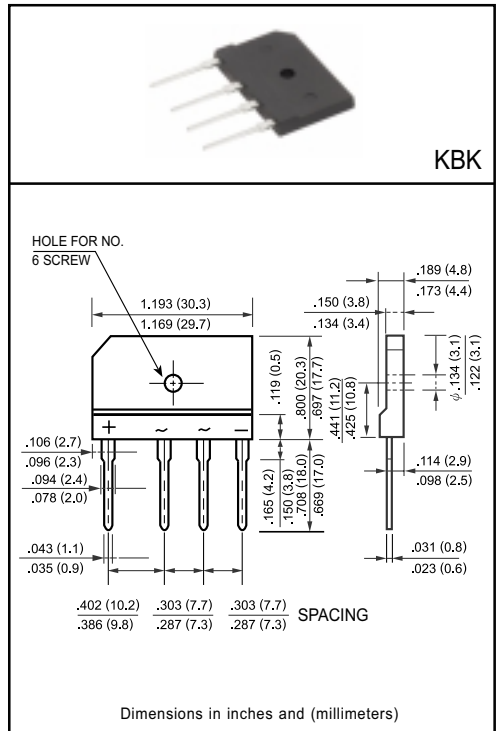
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating: 240 Amperes peak
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**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%.



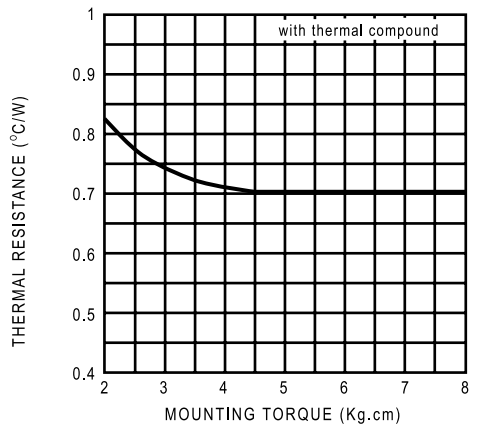
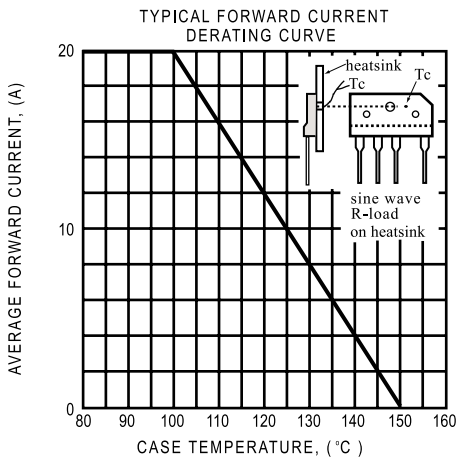
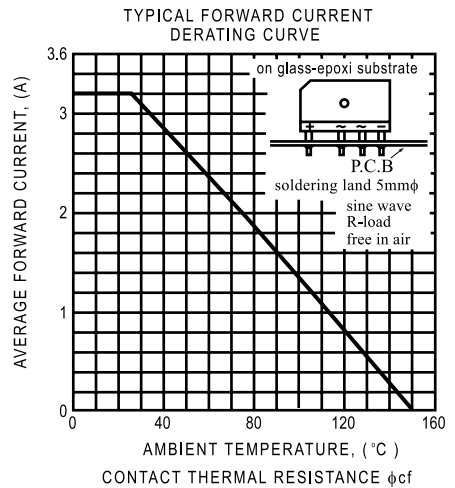
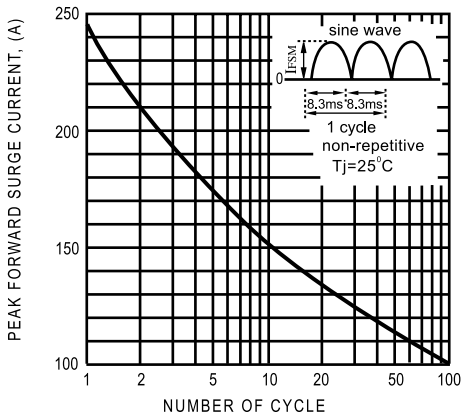
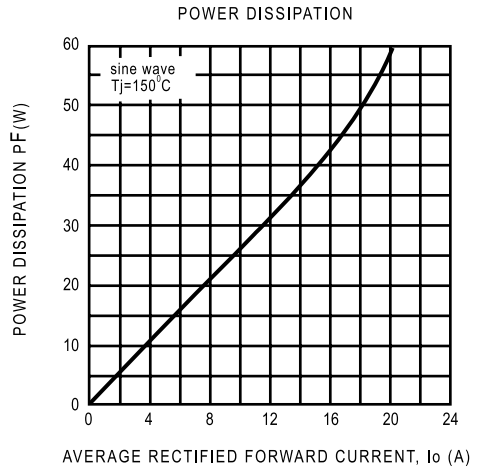
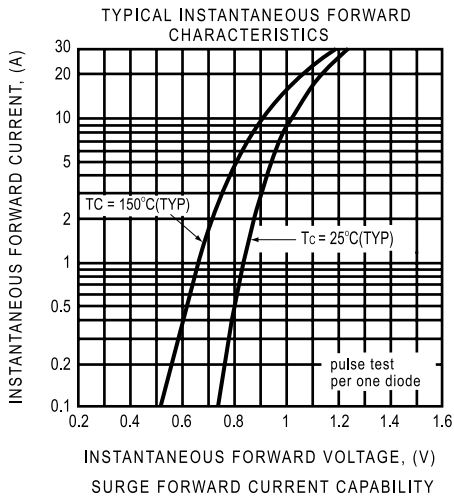
	SYMBOL	KBK20A	KBK20B	KBK20D	KBK20G	KBK20J	KBK20K	KBK20M	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T <sub>c</sub> = 100°C	I <sub>o</sub>	20							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	240							Amps
Maximum Forward Voltage Drop per element at 10 A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated	I <sub>R</sub>	10							uAmps
DC Blocking Voltage per element		500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	240							A <sup>2</sup> Sec
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	60							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	12							°C/W
Operating Temperature Range	T <sub>J</sub> T <sub>STG</sub>	-55 to + 150							°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

(KBK20A THRU KBK20M)



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