



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**KBK25A  
THRU  
KBK25M**

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

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 25 Amperes**

**FEATURES**

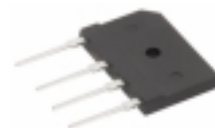
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating: 300 Amperes peak
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**MECHANICAL DATA**

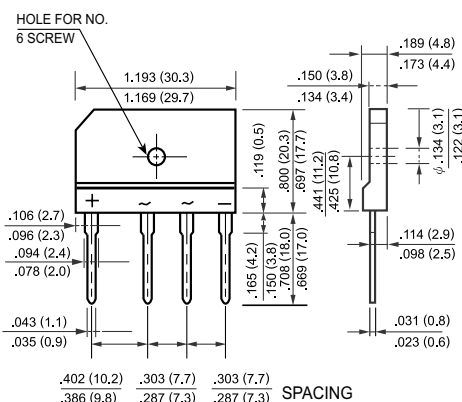
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 6.6 grams

**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)

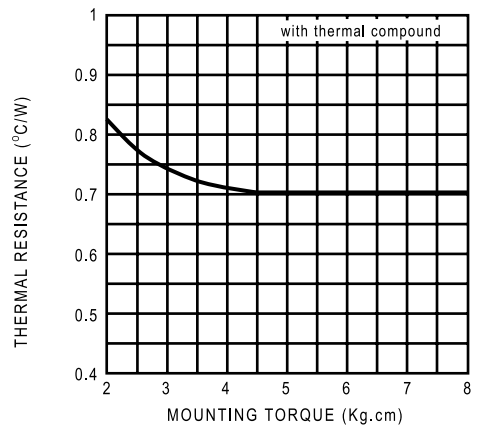
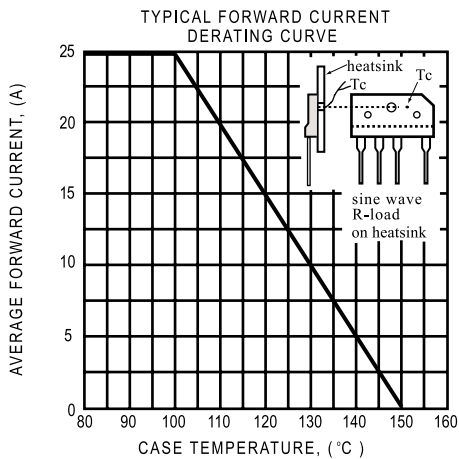
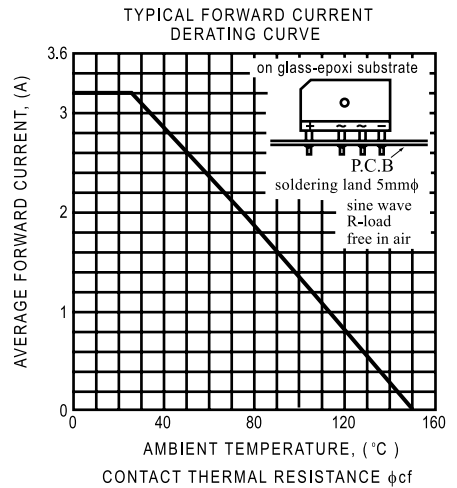
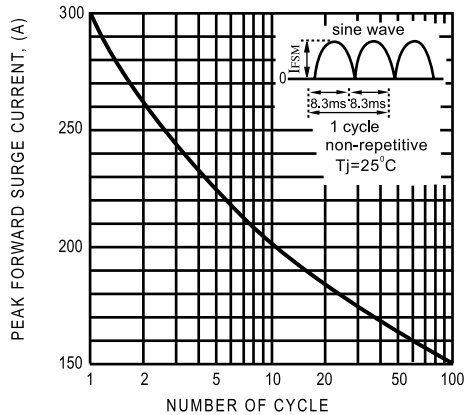
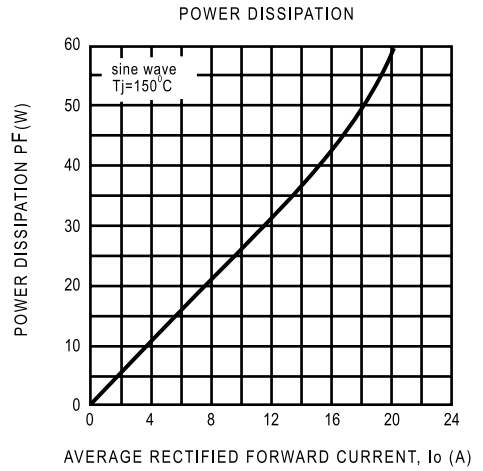
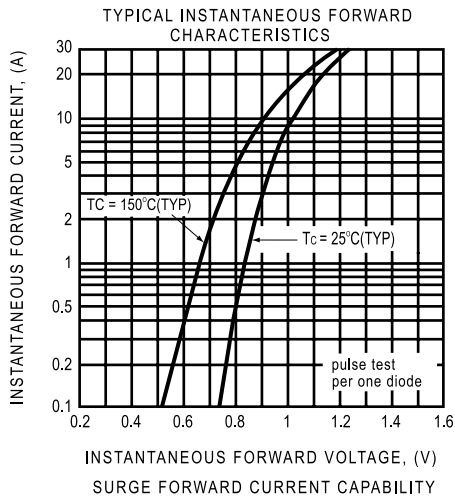
		SYMBOL	KBK25A	KBK25B	KBK25D	KBK25G	KBK25J	KBK25K	KBK25M	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T <sub>c</sub> = 100° C		I <sub>O</sub>	25							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	300							Amps
Maximum Forward Voltage Drop per element at 12.5 A DC		V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated	@T <sub>A</sub> = 25°C	I <sub>R</sub>	10							uAmps
DC Blocking Voltage per element	@T <sub>A</sub> = 100°C		500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		I <sup>2</sup> t	510							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)		C <sub>J</sub>	85							pF
Typical Thermal Resistance (Note 2)		R <sub>θJA</sub>	10							°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

(KBK25A THRU KBK25M)



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