



**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**

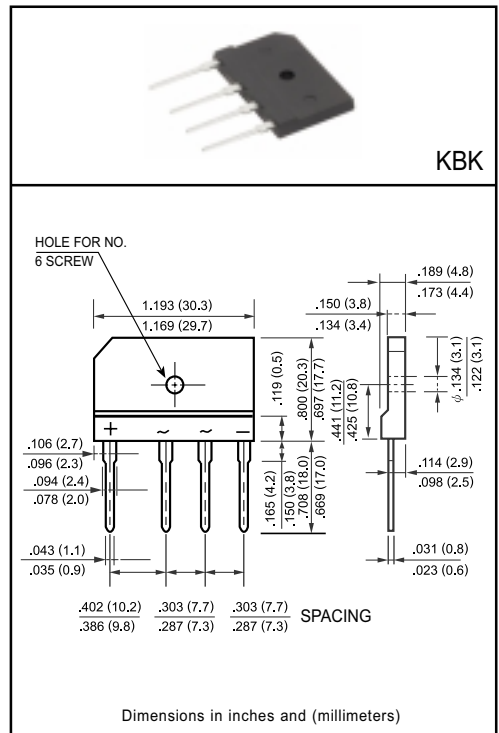
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating: 170 Amperes peak
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**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%.



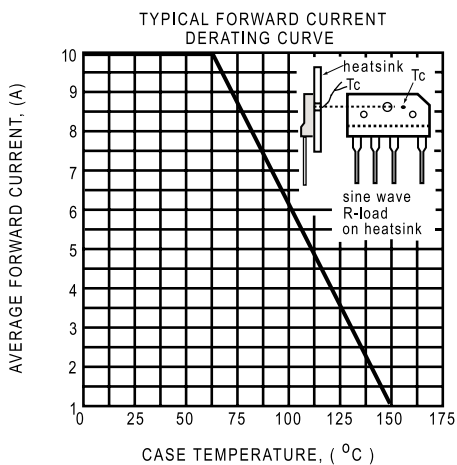
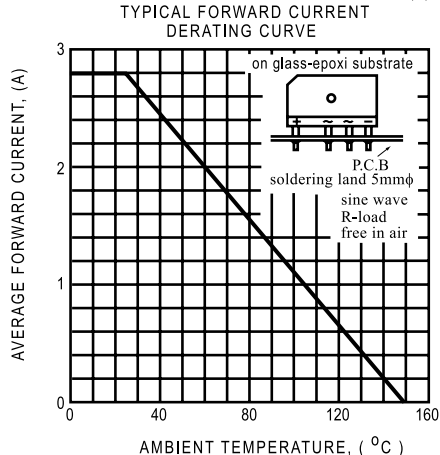
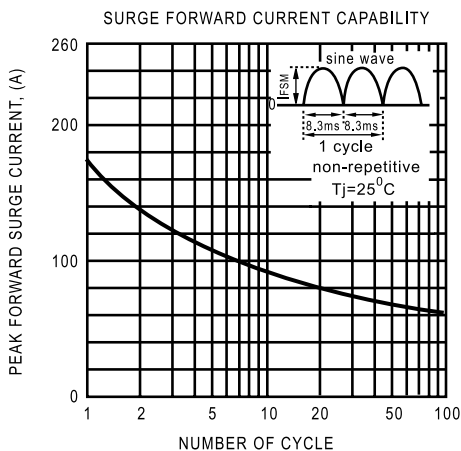
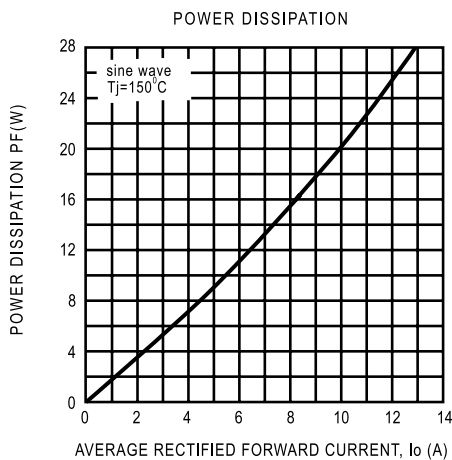
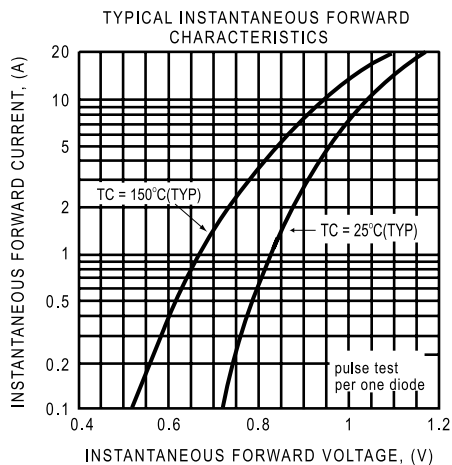
	SYMBOL	KBK10A	KBK10B	KBK10D	KBK10G	KBK10J	KBK10K	KBK10M	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average 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	$I_R$	10							uAmps
DC Blocking Voltage per element									
		500							A <sup>2</sup> Sec
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$								
Typical Junction Capacitance ( Note1)	$C_J$	55							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15							°C/W
Operating Temperature Range	$T_J T_{STG}$	-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

(KBK10A THRU KBK10M)



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