DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

KBK10A THRU KBK10M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

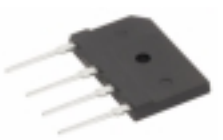
VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 10 Amperes*

FEATURES

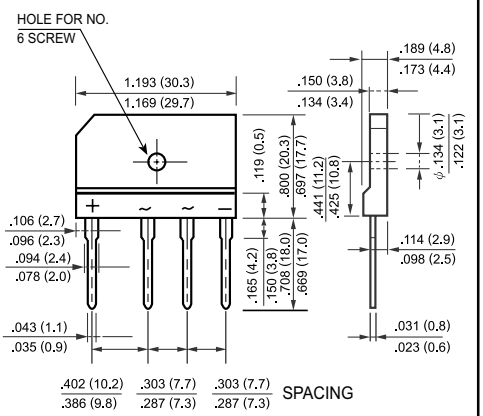
* Low leakage
* Low forward voltage
* Surge overload rating: 170 Amperes peak
* Ideal for printed circuit boards
* High forward surge current capability

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



KBK



Dimensions in inches and (millimeters)

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 Tc = 75° 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 DC Blocking Voltage per element	@T_A = 25°C	I_R	10							uAmps
	@T_A = 100°C		500							
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							°C/W
Operating Temperature Range		T_J T_{STG}	-55 to + 150							°C

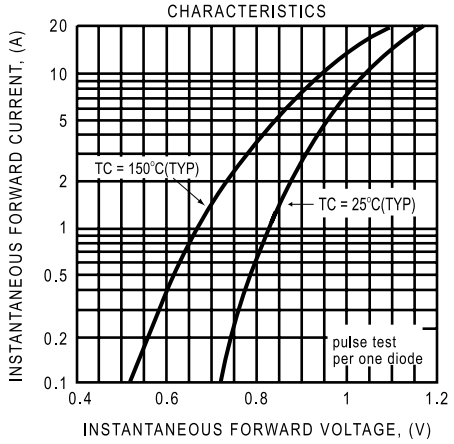
NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

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

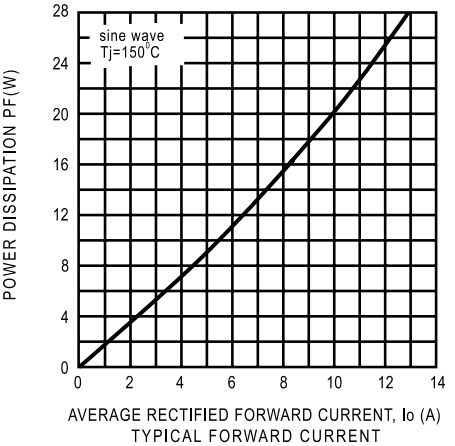
Diode, Bridge Rectifiers INDEX ① | Diode, Bridge Rectifiers INDEX ② | Transistors, SCR, IC INDEX ① | Transistors, SCR, IC INDEX ② | EXIT

RATING AND CHARACTERISTIC CURVES (KBK10A THRU KBK10M)

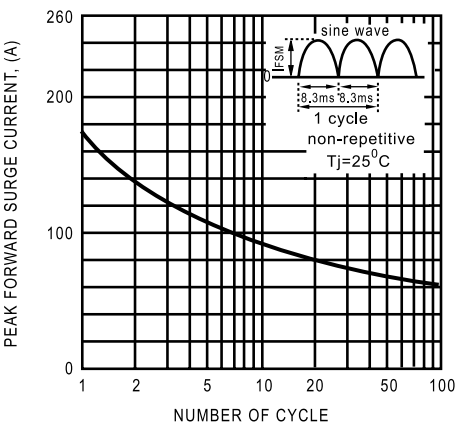
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



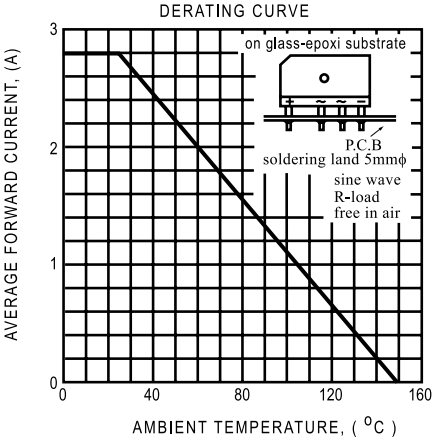
POWER DISSIPATION



SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE



TYPICAL FORWARD CURRENT DERATING CURVE

