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

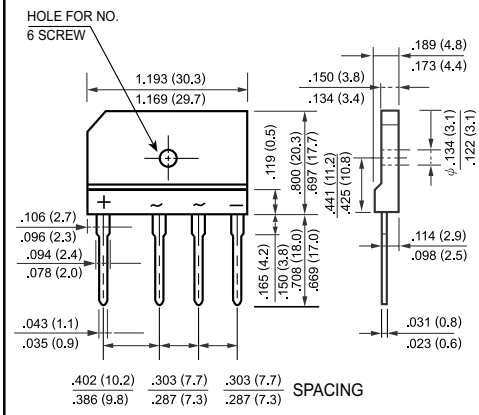
* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any
* Weight: 6.6 grams

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%.



KBK



Dimensions in inches and (millimeters)

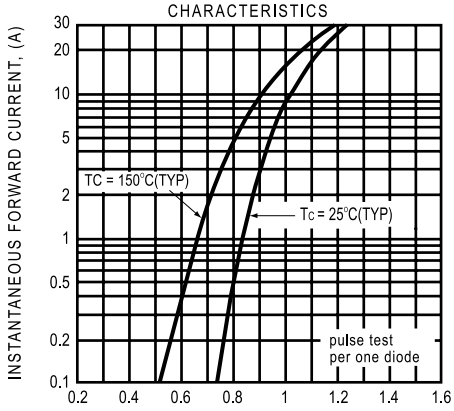
		SYMBOL	KBK20A	KBK20B	KBK20D	KBK20G	KBK20J	KBK20K	KBK20M	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at Tc = 100°C		I_O	20							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	240							Amps
Maximum Forward Voltage Drop per element at 10 A 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	240							A^2Sec
Typical Junction Capacitance (Note1)		C_J	60							pF
Typical Thermal Resistance (Note 2)		$R\theta JA$	12							°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

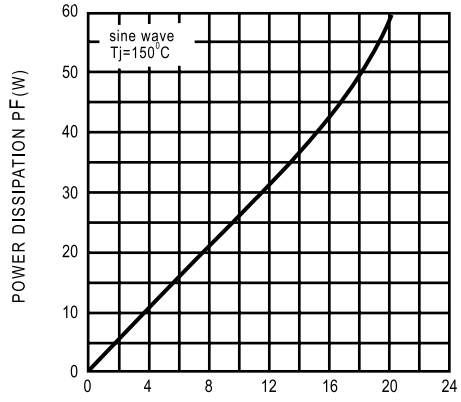
2. Thermal Resistance from Junction to Case per element Unit mounted on 300x300x1.6mm Aluminum plate heat-sink.

NEXT BACK EXIT

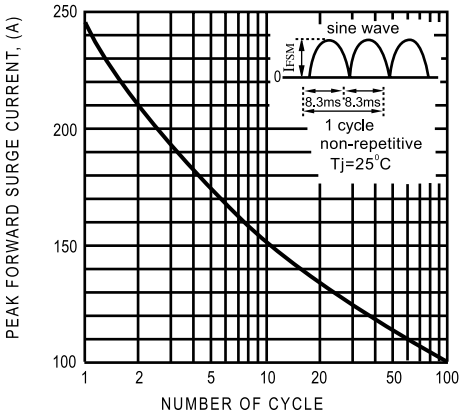
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



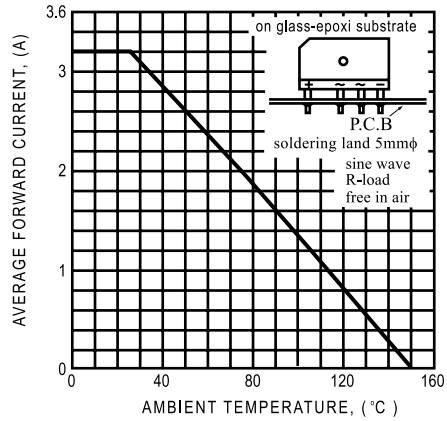
POWER DISSIPATION



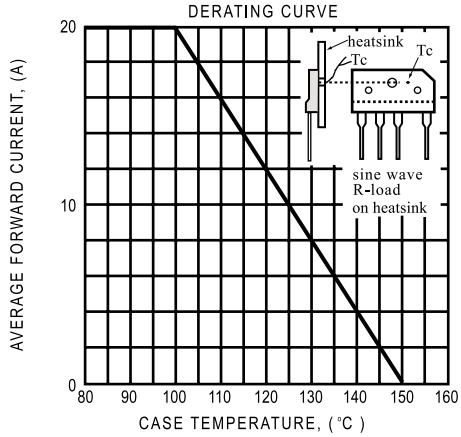
SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE



TYPICAL FORWARD CURRENT DERATING CURVE



CONTACT THERMAL RESISTANCE ϕcf

