



## KBPC15005-KBPC1510 SINGLE-PHASE SILICON BRIDGE RECTIFIER

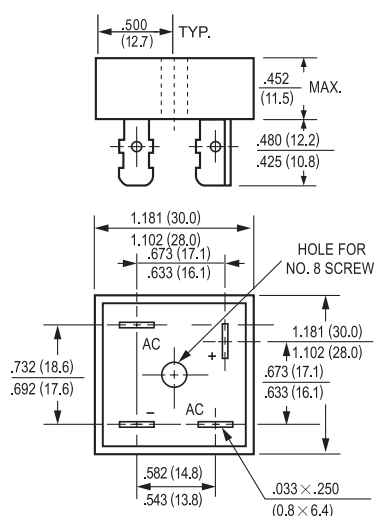
### VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 15Amperes

#### MECHANICAL DATA

- \* Case: Metal case, electrically isolated
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 30 grams

#### FEATURES

- \* Metal case for Maximum Heat Dissipation
- \* Surge overload ratings-300 Amperes
- \* Low forward voltage drop



MB-25



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%.

PARAMETER		SYMBOL	KBPC15005 MB1505	KBPC1501 MB151	KBPC1502 MB152	KBPC1504 MB154	KBPC1506 MB156	KBPC1508 MB158	KBPC1510 MB1510	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Current at T <sub>C</sub> = 55°C		I <sub>O</sub>	15.0							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 7.5A DC		V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	I <sub>R</sub>	10							uAmps
	@TA = 100°C		500							
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)		I <sup>2</sup> t	374							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note 1 )		C <sub>J</sub>	40							pF
Typical Thermal Resistance ( Note 2 )		R θ <sub>JA</sub>	19							°C/W
Operating and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +175							°C

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

2. Thermal Resistance from Junction to Ambient and from Junction to lead mounted on PCB with 0.47" x 0.47" (12x12mm) copper pads .



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### RATING AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

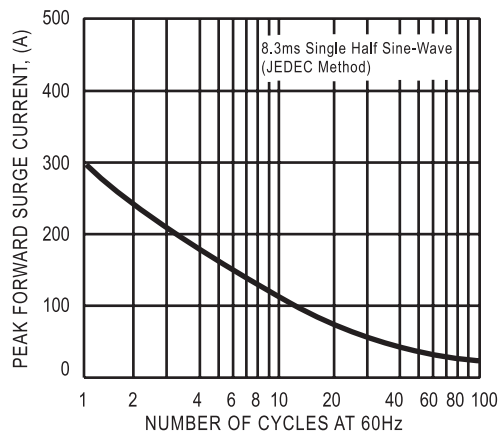


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

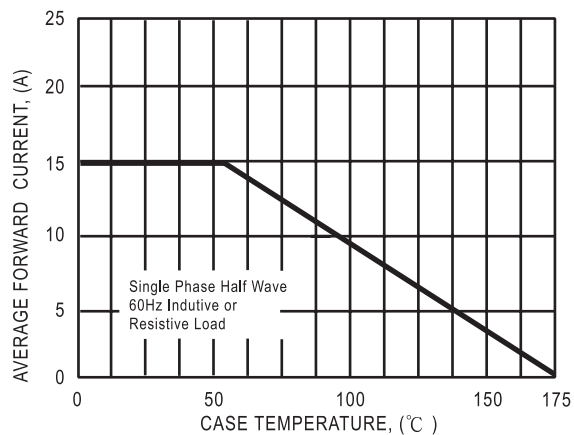


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

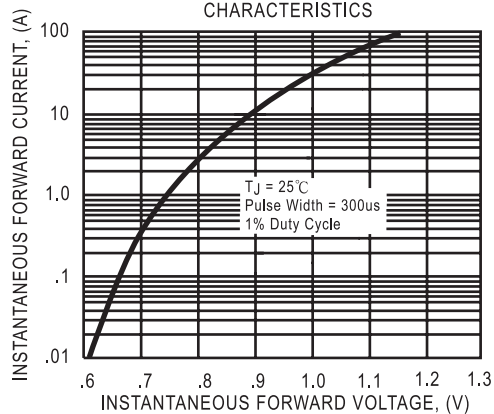


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

