



KBPC15005-KBPC1510 SINGLE-PHASE SILICON BRIDGE RECTIFIER

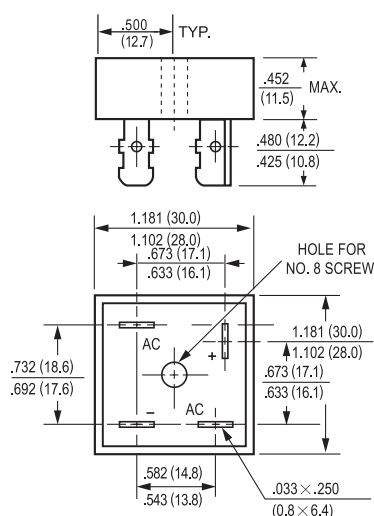
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 15Amperes

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 _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Current at T _C = 55°C		I _O	15.0						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)		I _{FSM}	300						Amps	
Maximum Forward Voltage Drop per element at 7.5A DC		V _F	1.1						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	I _R	10						uAmps	
	@TA = 100°C		500							
I ² t Rating for Fusing (t < 8.3ms)		I ² t	374						A ² Sec	
Typical Junction Capacitance (Note 1)		C _J	40						pF	
Typical Thermal Resistance (Note 2)		R θ _{JA}	19						°C/W	
Operating and Storage Temperature Range		T _J ,T _{STG}	-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

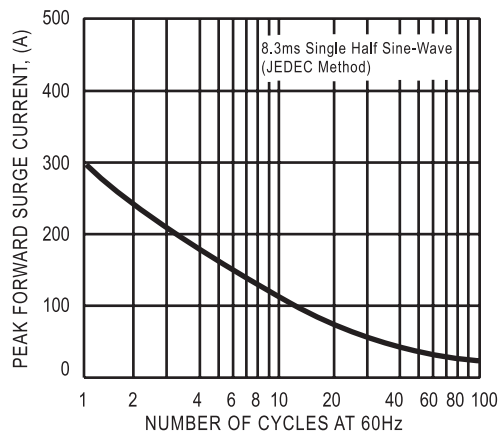


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

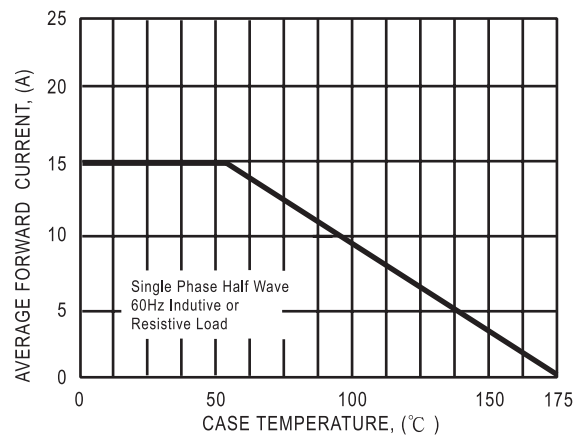


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

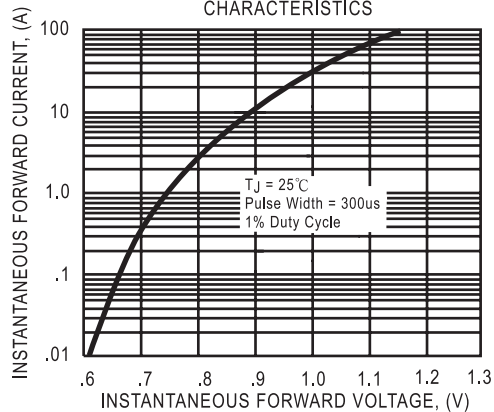


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

