



# KBPC15005-KBPC1510 SINGLE-PHASE SILICON BRIDGE RECTIFIER

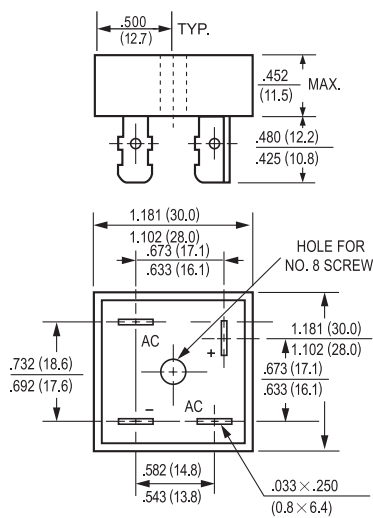
## VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 15Amperes

### 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	KBPC1501	KBPC1502	KBPC1504	KBPC1506	KBPC1508	KBPC1510	UNITS	
		MB1505	MB151	MB152	MB154	MB156	MB158	MB1510		
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 $T_C = 55^\circ C$	$I_o$	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	$I_R$	@ $T_A = 25^\circ C$	10							uAmps
		@ $T_A = 100^\circ C$	500							
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	374							$A^2Sec$	
Typical Junction Capacitance ( Note 1 )	$C_J$	40							pF	
Typical Thermal Resistance ( Note 2 )	$R\theta_{JA}$	19							$^\circ C/W$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +175							$^\circ C$	

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

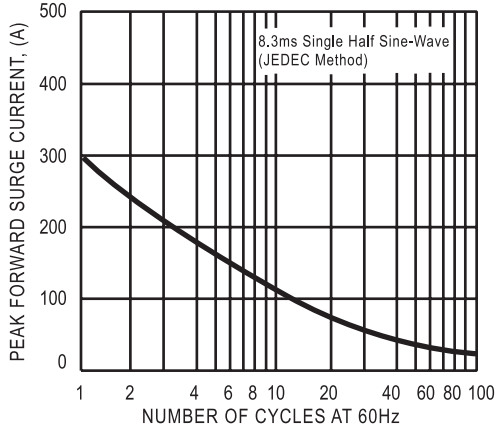


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

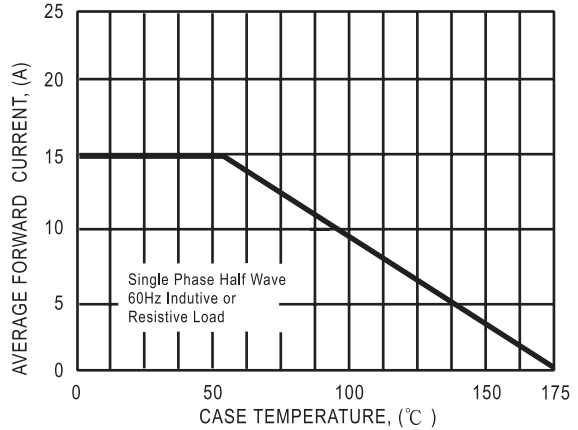


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

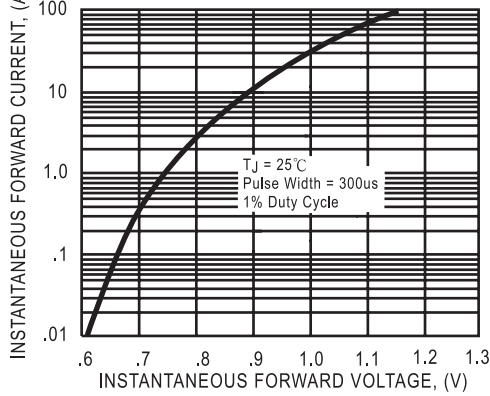


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

