

# KBPC25005/MB2505 THRU KBPC2510/MB2510

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 25.0A

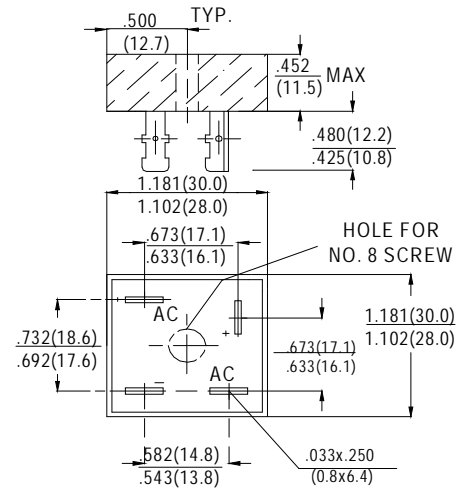
### FEATURES

- Metal case for Maximum Heat Dissipation
- Surge overload ratings-400 Amperes
- Low forward voltage drop

### MECHANICAL DATA

- **Case:** Metal shell with plastic encapsulation
- **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:** Thru hole for 8# screw
- **Weight:** 30 grams

### 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, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	units	
		25005	2501	2502	2504	2506	2508	2510		
		MB2505	MB251	MB252	MB254	MB256	MB258	MB2510		
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward rectified Output Current at $T_C=55^\circ\text{C}$	$I_o$	25.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	400							A	
Maximum Forward Voltage Drop per element at 12.5A DC	$V_F$	1.1							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$	@ $T_A=25^\circ\text{C}$	10							$\mu\text{A}$
		@ $T_A=100^\circ\text{C}$	500							
$I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )	$I^2t$	374							$\text{A}^2\text{S}$	
Typical Junction Capacitance (Note 1)	$C_J$	300							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.5							$^\circ\text{C/W}$	

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

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.B.C. with 0.47x0.47"(12x12mm) copper pads