

KBPC25005/MB2505 THRU KBPC2510/MB2510

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 25.0A

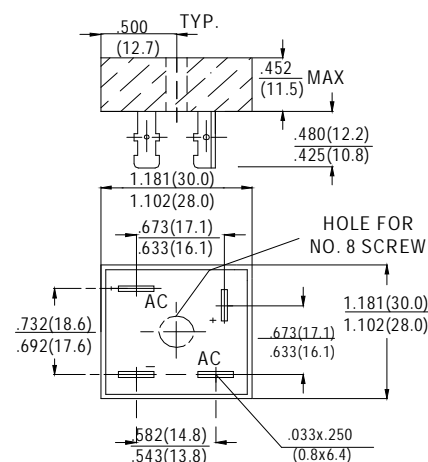
FEATURES

- 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		
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							μA
		@ $T_A=100^\circ\text{C}$	500							
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	374							A^2S	
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 0.47×0.47"(12×12mm) copper pads