

KBPC25005/MB2505 THRU KBPC2510/MB2510

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 25.0A

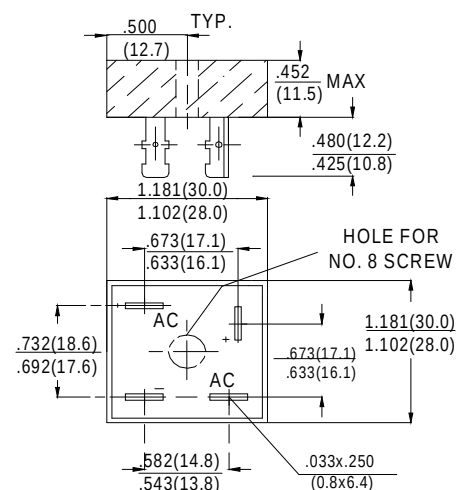
FEATURES

- 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 25005	KBPC 2501	KBPC 2502	KBPC 2504	KBPC 2506	KBPC 2508	KBPC 2510	units
			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°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	@ T _A =25°C	I_R	10							µA
	@ T _A =100°C		500							
I ² t Rating for Fusing (t<8.3ms)		I²t	374							A²S
Typical Junction Capacitance (Note 1)		C_J	300							pF
Typical Thermal Resistance (Note 2)		R_{θJA}	2.5							°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 $0.47\times 0.47(12\times 12\text{mm})$ copper pads