

KBPC35005/MB3505 THRU KBPC3510/MB3510

SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 35.0A

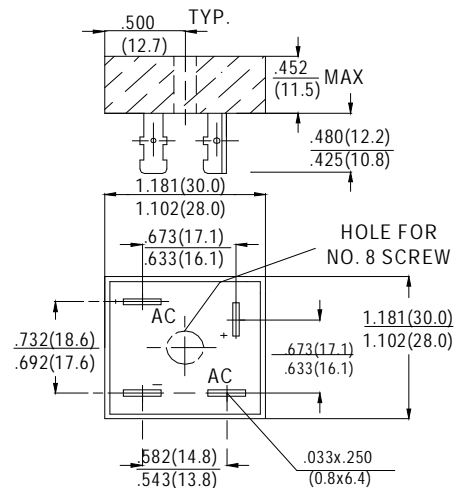
FEATURES

- 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 | |
|---|-----------------|---------------------------|------|------|------|------|------|------|----------------------|---------------|
| | | 35005 | 3501 | 3502 | 3504 | 3506 | 3508 | 3510 | | |
| 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 | 35.0 | | | | | | | 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 17.5A 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 | 664 | | | | | | | A^2S | |
| Typical Junction Capacitance (Note 1) | C_J | 300 | | | | | | | pF | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 2.2 | | | | | | | $^\circ\text{C/W}$ | |

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