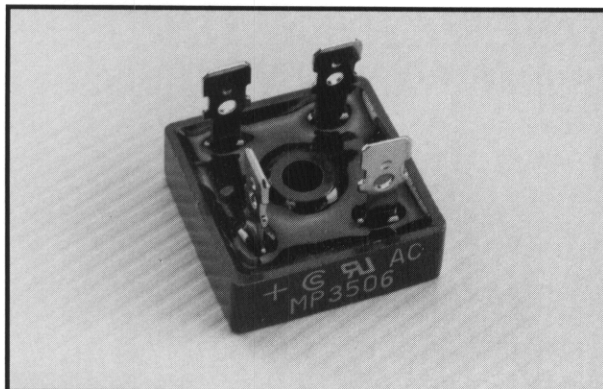




# MP35005 Thru MP3510

## 35 AMP SILICON BRIDGE RECTIFIER



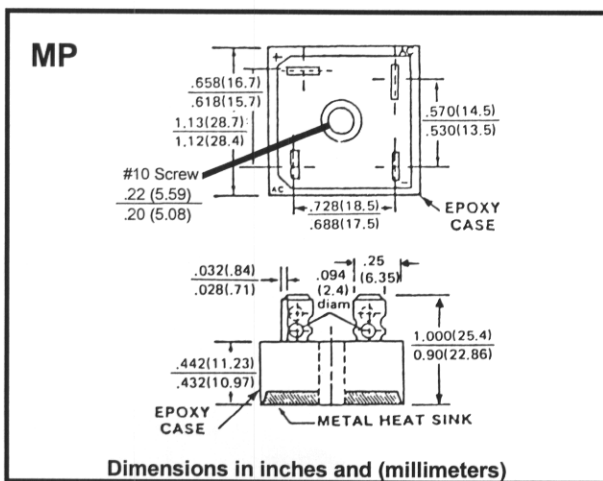
### FEATURES

- Rating to 1000V PRV
- 400A surge capability
- High efficiency
- UL recognized: File #E106441

### Mechanical Data

- Case: Molded Plastic with heatsink internally mounted in the bridge encapsulation
- Mounting: Through hole for #8 screw
- Weight: 0.7 ounce, 20 grams

### Outline Drawing



Dimensions in inches and (millimeters)

WIRE LEAD (.038 - .042 IN.) Add "W" to end of part number

### Maximum Ratings & 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%

|  |                   | MP35005     | MP3501 | MP3502 | MP3504 | MP3506 | MP3508 | MP3510 | Units            |
|--|-------------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                |
| Maximum RMS Input Voltage  | V <sub>RMS</sub>  | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V                |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V                |
| Maximum Average Forward Output Current @ T <sub>c</sub> = 55°C   | I <sub>(AV)</sub> | 35.0        |        |        |        |        |        |        | A                |
| Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC Method)                | I <sub>FSM</sub>  | 400         |        |        |        |        |        |        | A                |
| Maximum Forward Voltage Drop Per Element At 17.5A  | V <sub>F</sub>    | 1.1         |        |        |        |        |        |        | V                |
| Maximum Reverse Current At Rated DC Blocking Voltage per Element @ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 100° | I <sub>R</sub>    | 10          |        |        |        |        |        |        | μA               |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms)   | I <sup>2</sup> t  | 664         |        |        |        |        |        |        | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 1)  | R <sub>THJC</sub> | 2.0         |        |        |        |        |        |        | °C/W             |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +125 |        |        |        |        |        |        | °C               |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150 |        |        |        |        |        |        | °C               |

Note: 1. Mounted on a 11.8 in. <sup>2</sup> X 0.06 in. thick (300mm<sup>2</sup> X 1.5MM thick) copper plate