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semiconductors :: product :: **Bridge Rectifiers (Power)**

### **Product: Bridge Rectifiers (Power)**

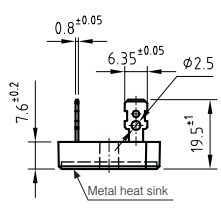
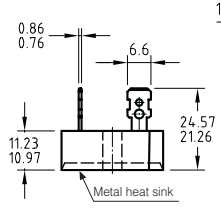
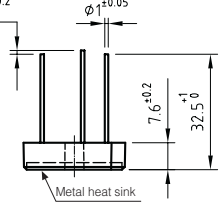
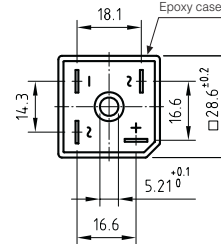
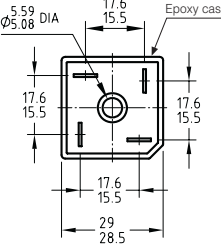
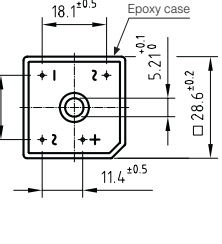

Bridge Rectifiers are key devices in many applications where a rectifier signal is required as Input voltage. Linear Power Supplies, SMPS, Battery Chargers, Electronic Ballast... are some applications where they are used.

Manufactured using HYPERRECTIFIER® technology, we offer these devices in several different packages: SMD, Dual In Line, Round, In Line and Square Power.

| Product                            | Family | $I_{F(AV)}$ (A) | $I_{FSM}$ (A) | $V_{RRM}$ (V) | $V_F$ (V) | OUTLINE        |
|------------------------------------|--------|-----------------|---------------|---------------|-----------|----------------|
| <a href="#">FB2506-B250/220-25</a> | FB25   | 25.0            | 300           | 600           | 1.1       | Power - Faston |



## 25 Amp. Glass Pasivated Bridge Rectifiers

| Power   | Power M   | Power L   | Voltage  | Current |
|---|---|---|--|---------|
|  |  |  | 50 to 1000 V   | 25 A    |
|  |  |  |    |         |
| Dimensions in mm.   |   |   | <ul style="list-style-type: none"> <li>• Glass Passivated Junction</li> <li>• UL recognized under component index file number E320541.</li> <li>• Terminals: FASTON ①</li> <li>• Terminals: WIRE LEADS ②</li> <li>• Max. Mounting torque: 25 Kg x cm</li> </ul> Lead and polarity identifications<br>High surge current capability |         |

### Maximum Ratings, according to IEC publication No. 134

|           | ①   | ②       | ③       | ④       | ⑤       | ⑥       | ⑦       |                        |     |     |     |     |     |      |
|-----------|---|---------|---------|---------|---------|---------|---------|------------------------|-----|-----|-----|-----|-----|------|
|           | FB2500  | FB2501  | FB2502  | FB2504  | FB2506  | FB2508  | FB2510  |                        |     |     |     |     |     |      |
|           | FB2500L   | FB2501L | FB2502L | FB2504L | FB2506L | FB2508L | FB2510L |                        |     |     |     |     |     |      |
|           | FB2500M   | FB2501M | FB2502M | FB2504M | FB2506M | FB2508M | FB2510M |                        |     |     |     |     |     |      |
| $V_{RRM}$ | Peak Recurrent Reverse Voltage (V)  |         |         |         |         |         |         | 50                     | 100 | 200 | 400 | 600 | 800 | 1000 |
| $V_{RMS}$ | Maximum RMS Voltage (V)   |         |         |         |         |         |         | 35                     | 70  | 140 | 280 | 420 | 560 | 700  |
| $V_R$     | Recommended Input Voltage (V)   |         |         |         |         |         |         | 20                     | 40  | 80  | 125 | 250 | 380 | 500  |
| $I_F(AV)$ | Max. Forward Current R-load: At T case = 55 °C<br>At T case = 90 °C<br>With Al Square Chassis (200 cm <sup>2</sup> x 3 mm.)<br>Tamb = 45 °C |         |         |         |         |         |         | 25 A                   |     |     |     |     |     |      |
|           |   |         |         |         |         |         |         | 17 A                   |     |     |     |     |     |      |
| $I_{FRM}$ | Recurrent Peak Forward Current  |         |         |         |         |         |         | 10 A                   |     |     |     |     |     |      |
| $I_{FSM}$ | 10 ms. Peak Forward Current   |         |         |         |         |         |         | 75 A                   |     |     |     |     |     |      |
| $I^2t$    | $I^2t$ value for fusing (t = 10ms)  |         |         |         |         |         |         | 300 A                  |     |     |     |     |     |      |
| $T_j$     | Operating junction temperature range  |         |         |         |         |         |         | 450 A <sup>2</sup> sec |     |     |     |     |     |      |
| $T_{stg}$ | Storage temperature range   |         |         |         |         |         |         | - 55 to + 150 °C       |     |     |     |     |     |      |
|           |   |         |         |         |         |         |         | - 55 to + 150 °C       |     |     |     |     |     |      |

### Electrical Characteristics at Tamb = 25 °C

|             |   |           |
|-------------|---|-----------|
| $V_F$       | Max. forward voltage drop per element at $I_F = 12.5 A$ | 1.1 V     |
| $I_R$       | Maximum reverse current per element at $V_{RRM}$ d.c.   | 5 $\mu A$ |
| $R_{thj-C}$ | Typical thermal resistance junction to case             | 1.4 °C/W  |
|             | Isolation voltage from case to leads                    | 2500 Vac  |