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### Product: Bridge Rectifiers (In Line)

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="#">FBI4J7M1</a> | FBI4-7M1 | 4.0             | 150           | 600           | 0.95      | In Line medium |

## 4 Amp. Glass Passivated Bridge Rectifier

|  |        |   |      |  |   |    |                     |  |
|--|--------|---|------|--|---|----|---------------------|--|
| <p>Dimensions in mm.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>L</td> <td>suffix</td> </tr> <tr> <td>17.5</td> <td></td> </tr> <tr> <td>8</td> <td>-4</td> </tr> </table> | L      | suffix  | 17.5 |  | 8 | -4 | <p>Plastic Case</p> | <p>Voltage<br/>50 to 1000 V.</p> <p>Current<br/>4.0 A.</p> |
| L  | suffix |   |      |  |   |    |                     |  |
| 17.5   |        |   |      |  |   |    |                     |  |
| 8  | -4     |   |      |  |   |    |                     |  |
| <p>• <b>Mounting Instructions</b></p> <ul style="list-style-type: none"> <li>• High temperature soldering guaranteed: 260 °C – 10 sc.</li> <li>• Recommended mounting torque: 8 Kg.cm.</li> </ul>              |        | <ul style="list-style-type: none"> <li>• <b>Glass Passivated Junction Chips.</b></li> <li>• UL recognized under component index file number E320541.</li> <li>• Lead and polarity identifications.</li> <li>• Case: Molded Plastic.</li> <li>• Ideal for printed circuit board (P.C.B.).</li> <li>• High surge current capability.</li> <li>• The plastic material carries U/L recognition 94 V-O.</li> </ul> |      |  |   |    |                     |  |

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

|             |  | FBI4A<br>7M1                      | FBI4B<br>7M1 | FBI4D<br>7M1 | FBI4G<br>7M1 | FBI4J<br>7M1 | FBI4K<br>7M1 | FBI4M<br>7M1 |
|-------------|--|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| $V_{RRM}$   | 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          |
| $I_{F(AV)}$ | Max. average Forward current with heatsink<br>without heatsink       | 4.0 A at 100 °C<br>3.0 A at 40 °C |              |              |              |              |              |              |
| $I_{FSM}$   | 10 ms. peak forward surge current (Iedec Method)                     | 150 A                             |              |              |              |              |              |              |
| $I^2t$      | Current squared time (rating for fusing)<br>(1ms.<t<10ms. Tc = 25°C) | 110 A <sup>2</sup> sec            |              |              |              |              |              |              |
| $V_{DIS}$   | Dielectric strength (terminals to case, AC 1 min.)                   | 2000 V                            |              |              |              |              |              |              |
| $T_i$       | Operating temperature range  | - 55 to + 150 °C                  |              |              |              |              |              |              |
| $T_{stg}$   | Storage temperature range  | - 55 to +150 °C                   |              |              |              |              |              |              |

### Electrical Characteristics at Tamb = 25°C

|               |   |         |
|---------------|---|---------|
| $V_F$         | Max. forward voltage drop per diode at $I_f = 2.0 A$        | 0.95V   |
| $I_R$         | Max. reverse current at $V_{RRM}$                           | 5µA     |
| $R_{th(j-c)}$ | MAXIMUM THERMAL RESISTANCE<br>Junction-Case. With Heatsink. | 5 °C/W  |
| $R_{th(j-a)}$ | Junction-Ambient. Without Heatsink.                         | 22 °C/W |