

3.7 Amp. Glass Passivated Bridge Rectifier

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| <p>Dimensions in mm.</p> <p>Plastic Case</p> <p>• Mounting Instructions</p> <ul style="list-style-type: none"> • High temperature soldering guaranteed: 260 °C – 10 sc. • Recommended mounting torque: 8 Kg.cm. | <p>Voltage 100 to 1000 V.</p> <p>Current 3.7 A.</p> <p>• Glass Passivated Junction Chips.</p> <ul style="list-style-type: none"> • UL recognized under component index file number E130180. • Lead and polarity identifications. • Case: Molded Plastic. • Ideal for printed circuit board (P.C.B.). • High surge current capability. • The plastic material carries U/L recognition 94 V-O. |
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Maximum Ratings, according to IEC publication No. 134

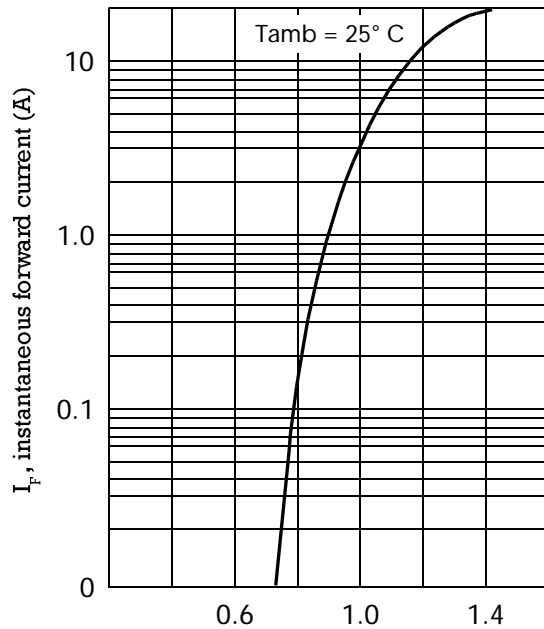
| | | FBI3.7B 1M1 | FBI3.7D 1M1 | FBI3.7F 1M1 | FBI3.7J 1M1 | FBI3.7L 1M1 | FBI3.7M 1M1 |
|-------------|--|-----------------------------------|----------------|----------------|----------------|----------------|----------------|
| V_{RRM} | Peak Recurrent Reverse Voltage (V) | 100 | 200 | 300 | 600 | 900 | 1000 |
| V_{RMS} | Maximum RMS Voltage (V) | 70 | 140 | 210 | 420 | 630 | 700 |
| V_R | Recommended Input Voltage (V) | 40 | 80 | 125 | 250 | 380 | 500 |
| $I_{F(AV)}$ | Max. Average forward current with heatsink without heatsink | 3.7 A at 100 °C 3.0 A at 25 °C | | | | | |
| I_{FRM} | Recurrent peak forward current | 20 A | | | | | |
| I_{FSM} | 10 ms. peak forward surge current | 150 A | | | | | |
| I^2t | I^2t value for fusing (t = 10 ms) | 110 A ² sec | | | | | |
| V_{DIS} | Dielectric strength (terminals to case, AC 1 min.) | 1500 V | | | | | |
| T_j | Operating temperature range | – 40 to + 150 °C | | | | | |
| T_{stg} | Storage temperature range | – 40 to + 150 °C | | | | | |

Electrical Characteristics at Tamb = 25°C

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|---------------|---|-----------|
| V_F | Max. forward voltage drop per element at $I_F = 3$ A | 1.1 V |
| I_R | Max. reverse current per element at V_{RRM} | 5 μ A |
| $R_{th(j-c)}$ | MAXIMUM THERMAL RESISTANCE Junction-Case. With Heatsink. | 5 °C/W |
| $R_{th(j-a)}$ | Junction-Ambient. Without Heatsink. | 22 °C/W |

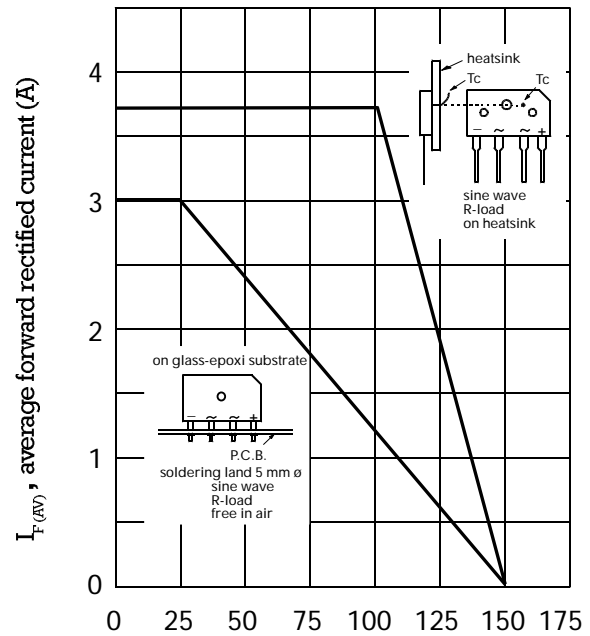
Characteristic Curves

TYPICAL FORWARD CHARACTERISTIC



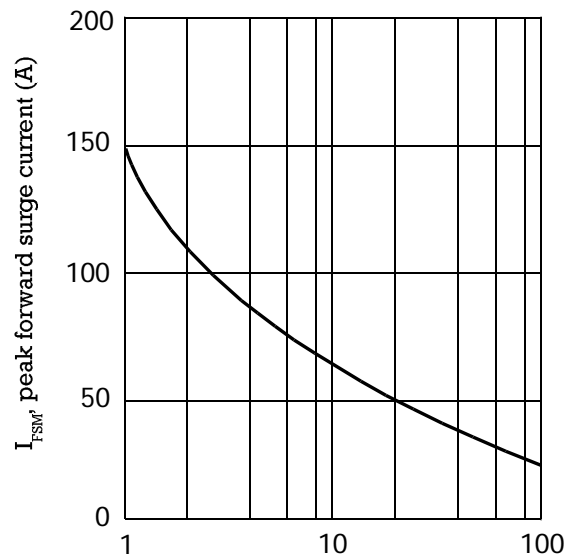
V_F , instantaneous forward voltage (V)

FORWARD CURRENT DERATING CURVE



T_{amb} , ambient temperature ($^{\circ}\text{C}$)

MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT



Number of cycles at 50 Hz.