## Fast Recovery Rectifier

# multicomp PRO



#### Features

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

#### **Mechanical Data**

| Case              | : JEDEC DO-15 molded plastic  |
|-------------------|-------------------------------|
| Polarity          | : Colour band denotes cathode |
| Weight            | : 0.015 ounces, 0.4 grams     |
| Mounting Position | : Any                         |
| Reverse Voltage   | : 800 Volts                   |
| Forward Current   | : 2 Ampere                    |

#### **Maximum Ratings and Electrical Characteristics:**

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristics   | Symbol | Values      | Unit |
|---|--------|-------------|------|
| Max. Recurrent Peak Reverse Voltage   | Vrrm   | 800         | V    |
| Max. RMS Voltage  | Vrms   | 560         | V    |
| Max. DC Blocking Voltage  | VDC    | 800         | V    |
| Max. Average Forward<br>Rectified Current @T <sub>A</sub> = 75°C  | l(AV)  | 2           | A    |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | Ifsm   | 60          | A    |
| Peak Forward Voltage at 2A DC   | VF     | 1.3         | V    |
| Maximum DC Reverse Current @TJ = 25°C<br>at Rated DC Blocking Voltage @TJ = 100°C                       | lr     | 5<br>100    | μA   |
| Maximum Reverse Recovery Time (Note 1)  | Trr    | 500         | nS   |
| Typical Junction Capacitance (Note 2)   | Сл     | 20          | pF   |
| Typical Thermal Resistance (Note 3)   | Reja   | 25          | °C/W |
| Operating Temperature Range   | TJ     | -55 to +150 | °C   |
| Storage Temperature Range   | Тѕтс   | -55 to +150 | °C   |

Notes : 1. Measured with IF = 0.5A, IR = 1A, IRR = 0.25A

2. Measured at 1MHz and applied reverse voltage of 4V DC

3. Thermal resistance junction to ambient.

4. The typical data above is for reference only

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#### **Ratings and Characteristic Curves**

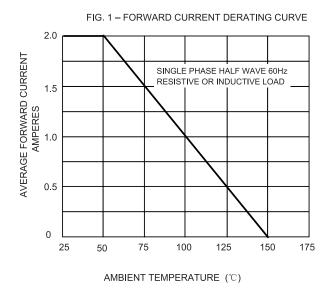
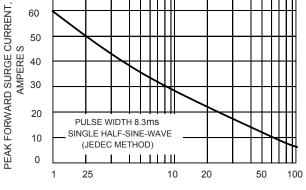


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

60

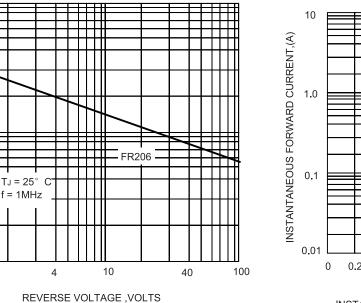
70

FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT



NUMBER OF CYCLES AT 60Hz

FIG.4-TYPICAL FORWARD CHARACTERISTICS



TJ = 25° C PULSE WIDTH 300us 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8

INSTANTANEOUS FORWARD VOLTAGE , VOLTS

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100

60

40

20

10

4

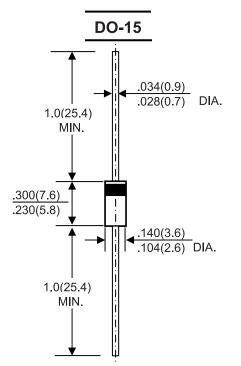
2

1

CAPACITANCE, (pF)



#### **Dimensions:**



Dimensions : Inches (Millimetres)

### Part Number Table

| Description                                | Part Number |
|--|-------------|
| Fast Recovery Rectifier, 2A<br>800V, DO-15 | FR206       |

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