# **Super Fast Rectifier**





#### Features:

- · Low power loss, high efficiency
- · Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- · Plastic material has UL flammability classification 94V-0

### **Mechanical Data:**

Case : TO-220AC molded plastic

Lead : MIL-STD-202E method 208C guaranteed

Weight : 2.24 grams

Mounting Position : Any

Reverse Voltage : 200 to 600 Volts Forward Current : 8 Amperes

### **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 | MUR820+     | MUR840+ | MUR860+ | Unit |
|---|--------|-------------|---------|---------|------|
| Max. Recurrent Peak Reverse Voltage   | VRRM   | 200         | 400     | 600     |      |
| Max. RMS Voltage  | VRMS   | 200         | 400     | 600     | \ \  |
| Max. DC Blocking Voltage  | VDC    | 140         | 280     | 420     | ]    |
| Max. Average Forward Rectified Current @ T∟ = 95°C  | lo     | 8           |         |         | A    |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | lгsм   | 100         |         |         |      |
| Typical Thermal Resistance (Note 2)   | Rejc   | 3 2         |         | °C/W    |      |
| Peak Forward Voltage at 20A DC  | VF     | 0.95        | 1.3     | 1.5     | V    |
| Max. DC Reverse Current at $T_A = 25^{\circ}C$<br>Rated DC Blocking Voltage at $T_A = 100^{\circ}C$     | lR     | 5<br>250    |         |         | μА   |
| Maximum Reverse Recovery Time (Note 1)  | TRR    | 35          | 35 50   |         | nS   |
| Operating Temperature Range   | TJ     | FF to 1450  |         | °C      |      |
| Storage Temperature Range   | Тѕтс   | -55 to +150 |         |         |      |

#### Notes:

- 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{RR} = 0.25A$ .
- 2. Theraml resistance junction to case mounted on heatsink.
- 3. The typical data above is for reference only

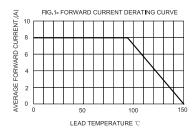
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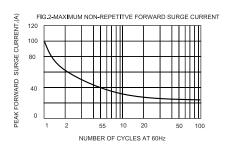


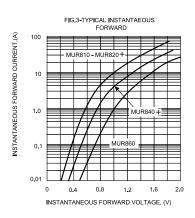
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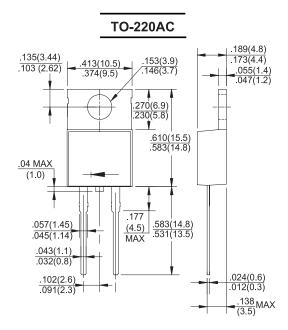
## **Ratings and Characteristic Curves**







#### **Dimensions:**



Dimensions: Inches (Millimetres)

#### **Part Number Table**

| Description           | Part Number |  |  |
|-----------------------|-------------|--|--|
|                       | MUR820+     |  |  |
| Super Fast Rectifiers | MUR840+     |  |  |
|                       | MUR860+     |  |  |

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