

### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2.5°C/W Junction to Case

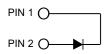
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS Voltage | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|------------------------|-----------------------------------|
| MUR810F            | MUR810F           | 100V  | 70V                    | 100V                              |
| MUR820F            | MUR820F           | 200V  | 140V                   | 200V                              |
| MUR840F            | MUR840F           | 400V  | 280V                   | 400V                              |
| MUR860F            | MUR860F           | 600V  | 420V                   | 600V                              |

# Electrical Characteristics @ 25°C Unless Otherwise Specified

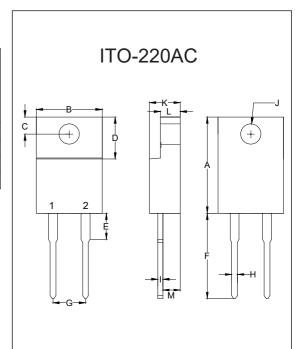
| Average Forward<br>Current   | I <sub>F(AV)</sub> | 8.0A                   | T <sub>C</sub> =100°C   |
|--|--------------------|------------------------|---|
| Peak Forward Surge<br>Current  | I <sub>FSM</sub>   | 125A                   | 8.3ms,Half Sine   |
| Maximum Instantaneous Forward Voltage MUR810F-MUR820F MUR840F MUR860F  | V <sub>F</sub>     | 0.975V<br>1.3V<br>1.5V | I <sub>FM</sub> =8A<br>T <sub>J</sub> =25°C                           |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                | I <sub>R</sub>     | 5.0μA<br>500μA         | T <sub>J</sub> =25°C;<br>T <sub>J</sub> =125°C                        |
| Maximum Reverse<br>Recovery Time<br>MUR810F-MUR820F<br>MUR840F-MUR860F | t <sub>rr</sub>    | 35ns<br>50ns           | I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A;<br>I <sub>RR</sub> =0.25A |

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

### Internal Structure



# 8 Amp Super Fast Rectifier 100 to 600 Volts



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   | NOTE |
| Α          | 0.567  | 0.606 | 14.40 | 15.40 |      |
| В          |        | 0.406 |       | 10.30 |      |
| С          | 0.100  | 0.112 | 2.55  | 2.85  |      |
| D          | 0.248  | 0.272 | 6.30  | 6.90  |      |
| E          |        | 0.161 |       | 4.10  |      |
| F          | 0.500  | 0.543 | 12.70 | 13.80 |      |
| G          | 0.200  |       | 5.10  |       |      |
| Н          |        | 0.035 |       | 0.90  |      |
| I          |        | 0.032 |       | 0.80  |      |
| J          | 0.102  | 0.134 | 2.60  | 3.40  | Ф    |
| K          |        | 0.189 |       | 4.80  |      |
| L          |        | 0.123 |       | 3.10  |      |
| М          | 0.098  | 0.114 | 2.50  | 2.90  |      |



## **Curve Characteristics**

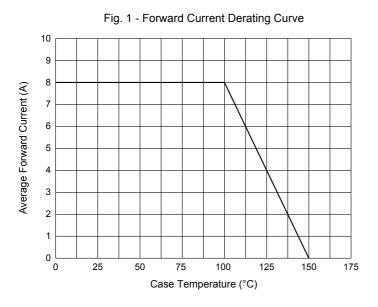
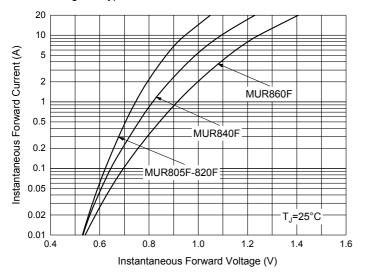


Fig. 3 - Typical Instantaneous Forward Characteristics



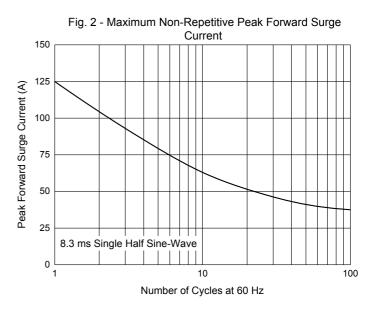
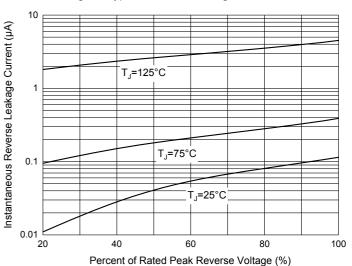


Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

| Device         | Packing                                |  |
|----------------|--|--|
| Part Number-BP | Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton |  |

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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