

**Features**

- Super Fast Switching For High Efficiency
- High Junction Temperature Capability
- Low Reverse Leakage
- High Forward Surge Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Planar Structure Die and Soft Recovery Characteristics

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 0.5°C/W Junction to Case

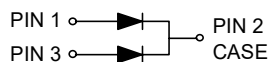
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MUR6040PT       | MUR6040PT      | 400V                                   | 280V                | 400V                        |

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |             |  |   |
|---|-------------|--|---|
| Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle | $I_{F(AV)}$ | 60A                                    | $T_C=120^\circ C$   |
| Peak Forward Surge Current  | $I_{FSM}$   | 480A                                   | 8.3ms, Half Sine  |
| Instantaneous Forward Voltage   | $V_F$       | 1.20V(Typ)<br>1.40V(Max)<br>1.20V(Max) | $I_{FM}=30A, T_J=25^\circ C$<br>$I_{FM}=30A, T_J=25^\circ C$<br>$I_{FM}=30A, T_J=125^\circ C$ |
| Maximum Reverse Current At Rated DC Blocking Voltage                            | $I_R$       | 10µA<br>0.10mA                         | $T_J=25^\circ C$<br>$T_J=125^\circ C$   |
| Maximum Reverse Recovery Time   | $t_{rr}$    | 50ns                                   | $I_F=0.5A; I_R=1.0A,$<br>$I_{RR}=0.25A$   |

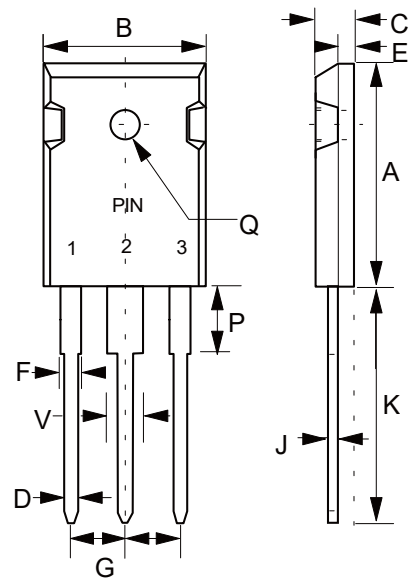
Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

**Internal Structure**



**60 Amp  
Super Fast  
Recovery Rectifier  
400 Volts**

**TO-247**



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.787  | 0.866 | 20.00 | 22.00 |      |
| B   | 0.598  | 0.638 | 15.20 | 16.20 |      |
| C   | 0.185  | 0.208 | 4.70  | 5.30  |      |
| D   | 0.035  | 0.059 | 0.90  | 1.50  |      |
| E   | 0.059  | 0.094 | 1.50  | 2.40  |      |
| F   | 0.067  | 0.091 | 1.70  | 2.30  |      |
| J   | 0.019  | 0.031 | 0.48  | 0.80  |      |
| K   | 0.748  | 0.833 | 19.00 | 21.15 |      |
| P   | 0.122  | 0.189 | 3.10  | 4.80  |      |
| Q   | 0.118  | 0.150 | 3.00  | 3.80  | φ    |
| V   | 0.106  | 0.134 | 2.70  | 3.40  |      |
| G   | 0.197  | 0.224 | 5.00  | 5.70  |      |

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

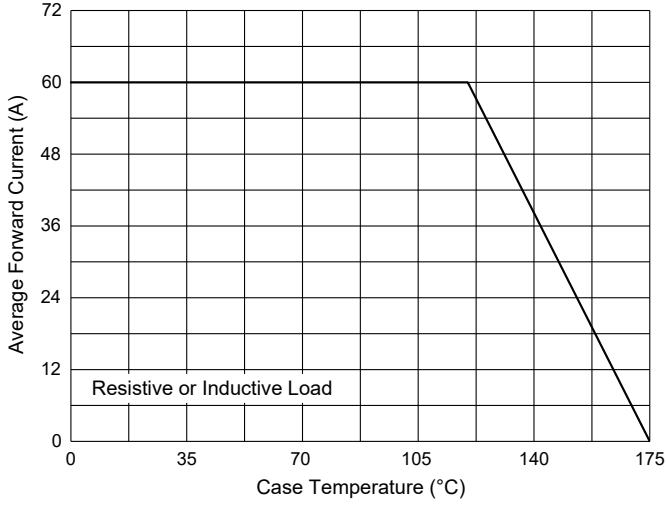


Fig. 2 - Typical Instantaneous Forward Characteristics

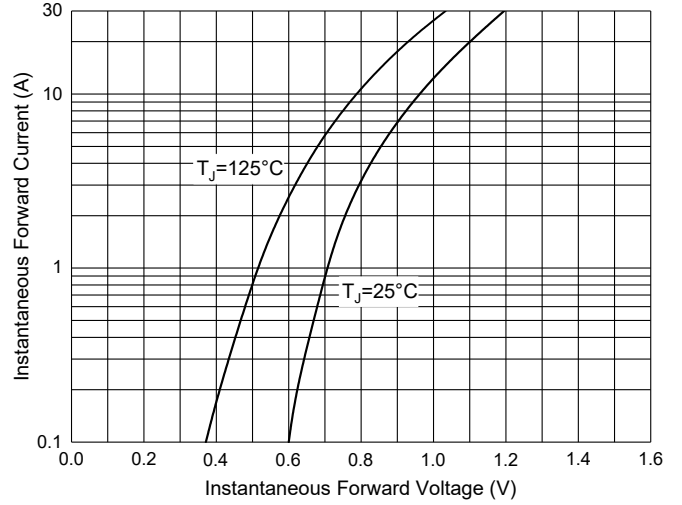
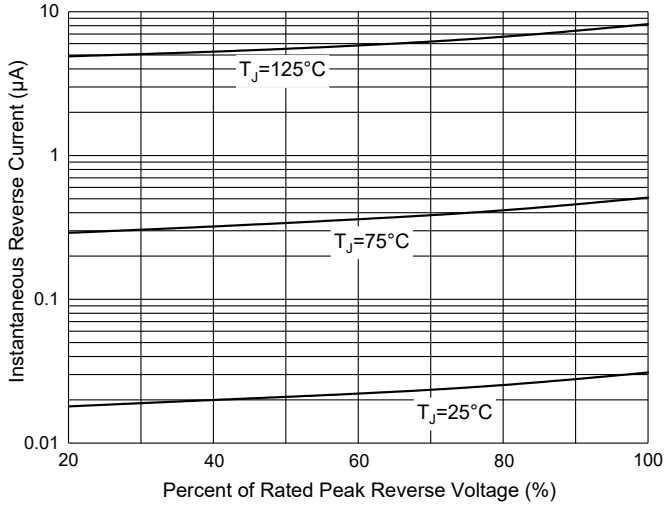


Fig. 3 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing                                   |
|----------------|---|
| Part Number-BP | Bulk:30pcs/Tube,360pcs/Box,1.8Kpcs/Carton |

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

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