

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Forward Voltage Drop
- Fast Reverse Recovery Time
- Planar Structure Die and Soft Recovery Characteristics

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 2°C/W Junction to Case

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURS1060L       | MURS1060L      | 600V                                   | 420V                | 600V                        |

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

|  |             |                                     |  |
|--|-------------|-------------------------------------|--|
| Average Rectified Forward Current                    | $I_{F(AV)}$ | 10A                                 | $T_C = 125^\circ C$  |
| Peak Forward Surge Current                           | $I_{FSM}$   | 100A                                | 8.3ms, Half Sine   |
| Maximum Instantaneous Forward Voltage                | $V_F$       | 1.1V(Typ)<br>1.3V(Max)<br>1.1V(Max) | $I_F=10A; T_J=25^\circ C$<br>$I_F=10A; T_J=25^\circ C$<br>$I_F=10A; T_J=150^\circ C$ |
| Maximum Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5 $\mu A$<br>200 $\mu A$            | $T_J=25^\circ C;$<br>$T_J=150^\circ C$   |
| Typical Junction Capacitance                         | $C_J$       | 115pF                               | Measured at 1.0MHz, $V_R=4.0V$   |

**Dynamic Recovery Characteristics @ 25°C Unless Otherwise Specified**

|                         |           |                             |   |  |
|-------------------------|-----------|-----------------------------|---|--|
| Reverse Recovery Time   | $t_{rr}$  | 40ns(Typ.)<br>75ns(Max.)    | $I_F=0.5A; I_R=1.0A;$<br>$I_{RR}=0.25A$ | $I_F = 10 A$<br>$di_F/dt = 200 A/\mu s$<br>$V_R = 200 V$ |
|                         |           | 160ns(Typ.)<br>250ns(Typ.)  | $T_J=25^\circ C$<br>$T_J=125^\circ C$   |  |
| Peak recovery current   | $I_{RRM}$ | 6.5A(Typ.)<br>10A(Typ.)     | $T_J=25^\circ C$<br>$T_J=125^\circ C$   |  |
| Reverse recovery charge | $Q_{rr}$  | 565nC(Typ.)<br>1250nC(Typ.) | $T_J=25^\circ C$<br>$T_J=125^\circ C$   |  |

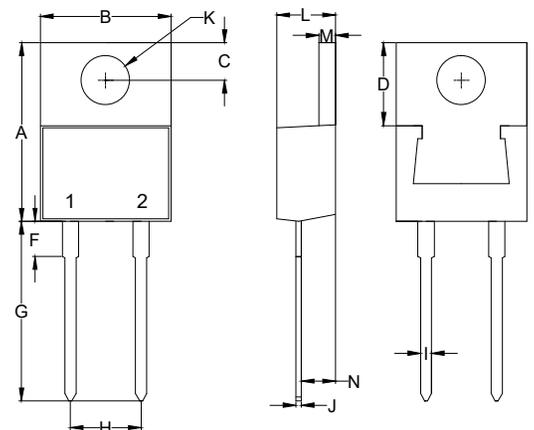
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

**Internal Structure**



**10 Amp  
FRED Rectifiers  
600 Volts**

**TO-220AC**



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.560      | 0.625 | 14.22 | 15.88 |      |
| B   | 0.380      | 0.420 | 9.65  | 10.67 |      |
| C   | 0.100      | 0.135 | 2.54  | 3.43  |      |
| D   | 0.230      | 0.270 | 5.84  | 6.86  |      |
| F   | ----       | 0.250 | ----  | 6.35  |      |
| G   | 0.500      | 0.580 | 12.70 | 14.73 |      |
| H   | 0.190      | 0.210 | 4.83  | 5.33  |      |
| I   | 0.020      | 0.045 | 0.51  | 1.14  |      |
| J   | 0.012      | 0.025 | 0.30  | 0.64  |      |
| K   | 0.139      | 0.161 | 3.53  | 4.09  | Φ    |
| L   | 0.140      | 0.190 | 3.56  | 4.83  |      |
| M   | 0.045      | 0.055 | 1.14  | 1.40  |      |
| N   | 0.080      | 0.115 | 2.03  | 2.92  |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

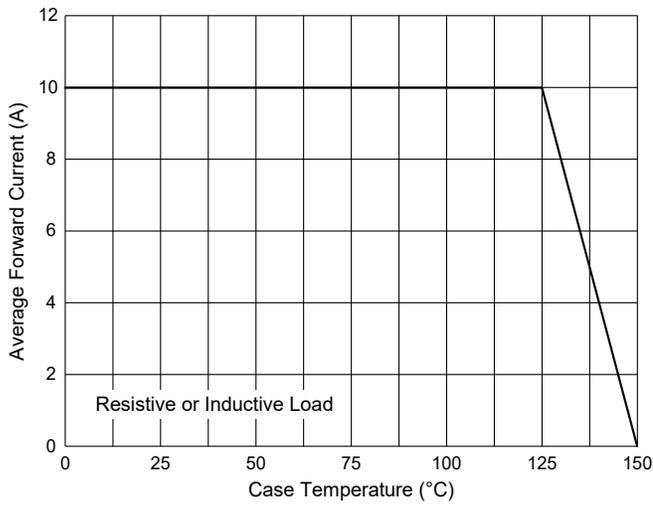


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

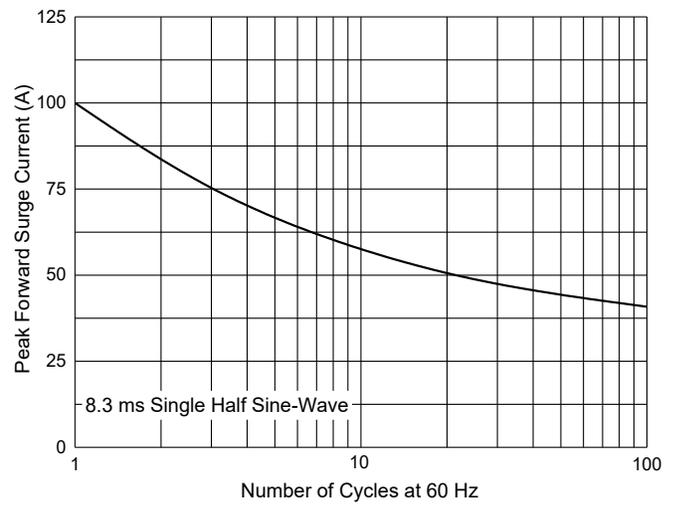


Fig. 3 - Typical Instantaneous Forward Characteristics

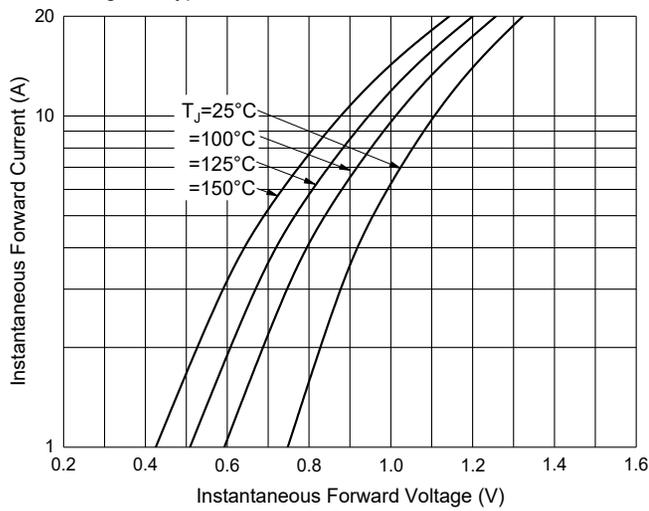
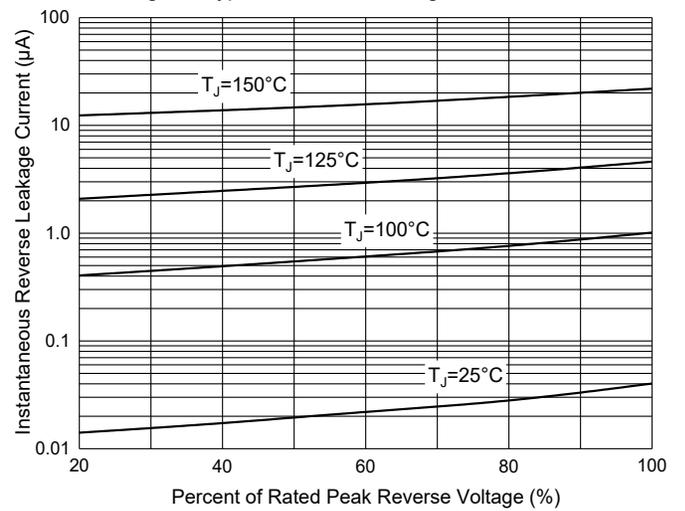


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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