# 60 Amp Ultra Fast Recovery Rectifier 1200 Volts

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Frequency Operation
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Planar Structure Die and Soft Recovery Characteristics

## Maximum Ratings

- Operating Junction Temperature Range: -55ºC to +175ºC
- Storage Temperature Range: -55ºC to +175ºC
- Typical Thermal Resistance: 0.4°C/W Junction to Case

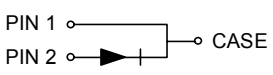
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|---|
| MUR60120B | MUR60120B | 1200V | 840V | 1200V |

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

| | | | |
|---|---|---|---|
| Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle | $I_{F(AV)}$ | 60A | $T_C$=90ºC |
| Peak Forward Surge Current | $I_{FSM}$ | 500A | 8.3ms,Half Sine |
| Maximum Instantaneous Forward Voltage | $V_F$ | 3.3V | $I_F$=60A; $T_A$=25ºC |
| Maximum Reverse Current At Rated DC Blocking Voltage | $I_R$ | 0.015mA<br>0.5mA | $T_A$=25ºC;<br>$T_A$=125ºC |
| Maximum Reverse Recovery Time | $t_{rr}$ | 85ns | $I_F$=0.5A; $I_R$=1.0A; $I_{RR}$=0.25A |

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

Internal Structure

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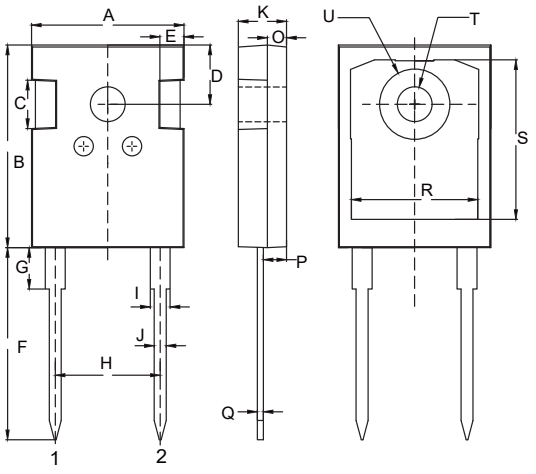



| DIM | INCHES | | MM | | NOTE |
|---|---|---|---|---|---|
| | MIN | MAX | MIN | MAX | |
| A | 0.602 | 0.642 | 15.30 | 16.30 | |
| B | 0.799 | 0.839 | 20.30 | 21.30 | |
| C | 0.189 | 0.205 | 4.80 | 5.20 | |
| D | 0.242 | | 6.15 | | BSC. |
| E | 0.091 | 0.106 | 2.30 | 2.70 | |
| F | 0.768 | 0.807 | 19.50 | 20.50 | |
| G | ----- | 0.189 | ----- | 4.80 | |
| H | 0.428 | | 10.88 | | BSC. |
| I | 0.075 | 0.087 | 1.91 | 2.21 | |
| J | 0.044 | 0.054 | 1.11 | 1.36 | |
| K | 0.189 | 0.205 | 4.80 | 5.20 | |
| O | 0.073 | 0.085 | 1.85 | 2.15 | |
| P | 0.087 | 0.103 | 2.21 | 2.61 | |
| Q | 0.020 | 0.030 | 0.51 | 0.75 | |
| R | 0.512 | 0.535 | 13.00 | 13.60 | |
| S | 0.640 | 0.663 | 16.25 | 16.85 | |
| T | 0.134 | 0.150 | 3.40 | 3.80 | Φ |
| U | ----- | 0.287 | ----- | 7.30 | Φ |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

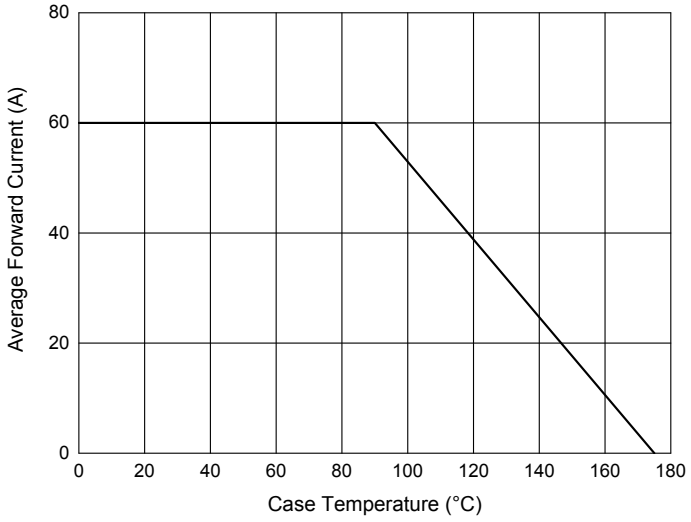



Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

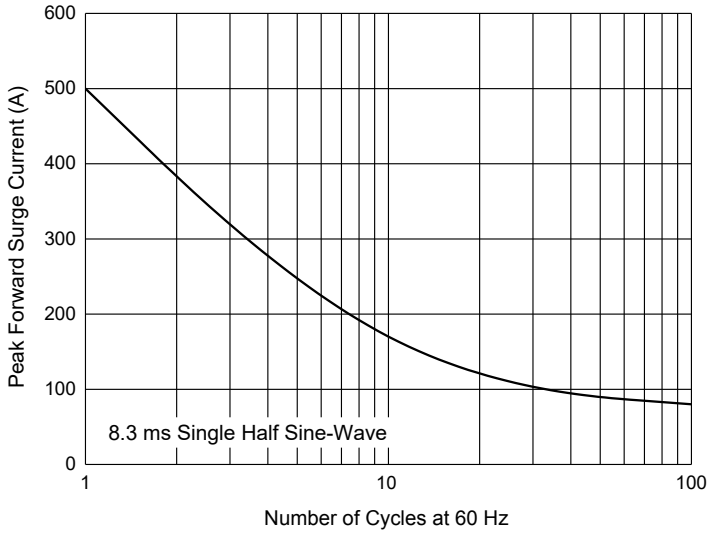



Fig. 3 - Typical Instantaneous Forward Characteristics

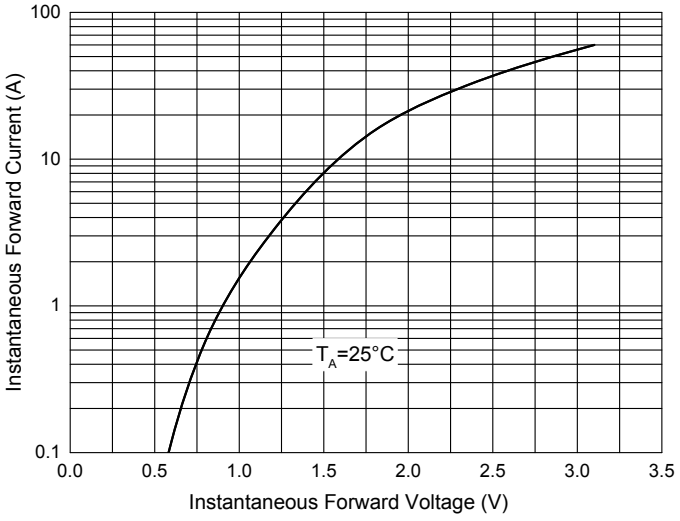
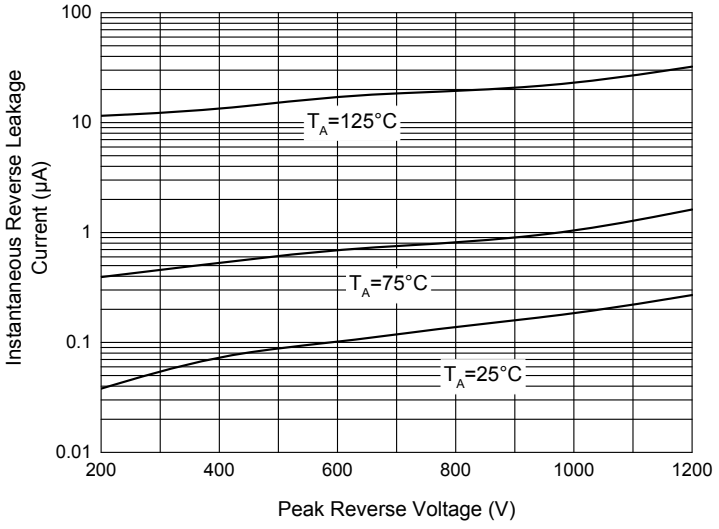



Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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

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