

## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Super Fast Switching Speed For High Efficiency
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Typical Thermal Resistance: 60°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MUR105GP        | MUR105GP       | 50V                                    | 35V                 | 50V                         |
| MUR110GP        | MUR110GP       | 100V                                   | 70V                 | 100V                        |
| MUR115GP        | MUR115GP       | 150V                                   | 105V                | 150V                        |
| MUR120GP        | MUR120GP       | 200V                                   | 140V                | 200V                        |
| MUR140GP        | MUR140GP       | 400V                                   | 280V                | 400V                        |
| MUR160GP        | MUR160GP       | 600V                                   | 420V                | 600V                        |

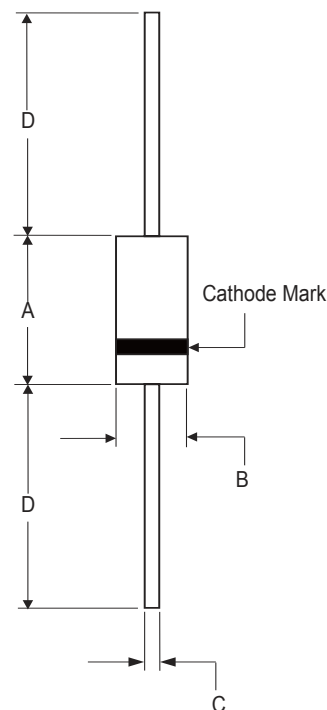
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                                       |   |
|---|-------------|---------------------------------------|---|
| Average Forward Current   | $I_{F(AV)}$ | 1.0A                                  | $T_L=130^\circ\text{C}$                             |
| Peak Forward Surge Current  | $I_{FSM}$   | 35A                                   | 8.3ms, Half Sine                                    |
| Maximum Instantaneous Forward Voltage<br>MUR105GP-115GP<br>MUR120GP-160GP | $V_F$       | 0.97V<br>1.35V                        | $I_{FM}=1.0A$ ;<br>$T_J=25^\circ\text{C}$           |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                   | $I_R$       | 5.0 $\mu\text{A}$<br>50 $\mu\text{A}$ | $T_J=25^\circ\text{C}$ ;<br>$T_J=150^\circ\text{C}$ |
| Maximum Reverse Recovery Time<br>MUR105GP-140GP<br>MUR160GP               | $t_{rr}$    | 45ns<br>60ns                          | $I_F=0.5A$ ; $I_R=1.0A$ ;<br>$I_{rr}=0.25A$         |
| Typical Junction Capacitance<br>MUR105GP-115GP<br>MUR120GP-160GP          | $C_J$       | 15pF<br>10pF                          | Measured at 1.0MHz<br>$V_R=4.0V$                    |

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

# 1.0 Amp Glass Passivated Super Fast Recovery Rectifier 50 to 600 Volts

## DO-41



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.160  | 0.205 | 4.10  | 5.20  |      |
| B          | 0.080  | 0.107 | 2.00  | 2.70  | Φ    |
| C          | 0.028  | 0.035 | 0.71  | 0.90  | Φ    |
| D          | 1.000  | ----- | 25.40 | ----- |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

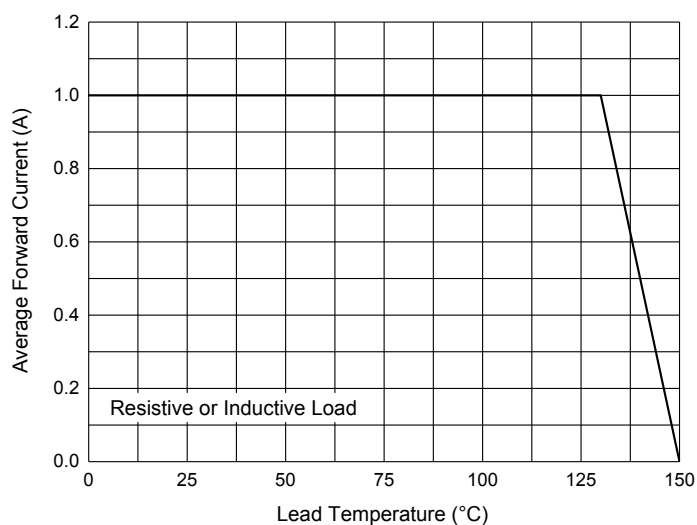


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

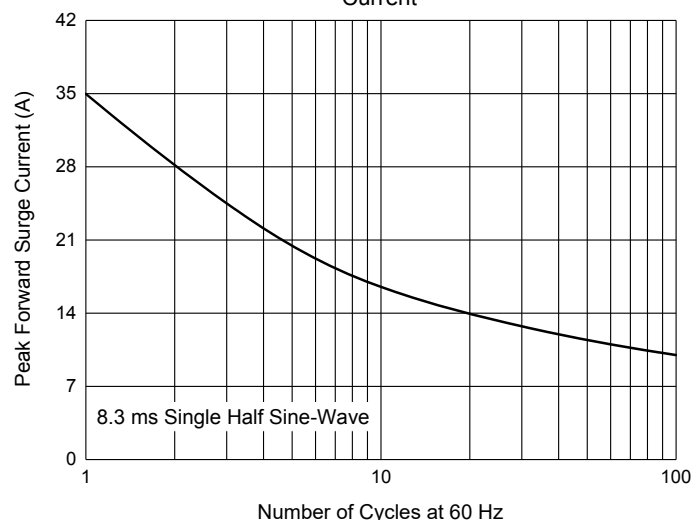


Fig. 3 - Typical Instantaneous Forward Characteristics

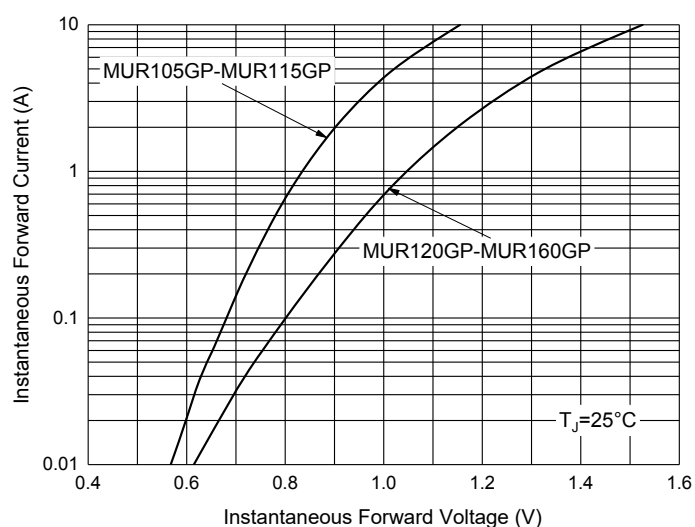
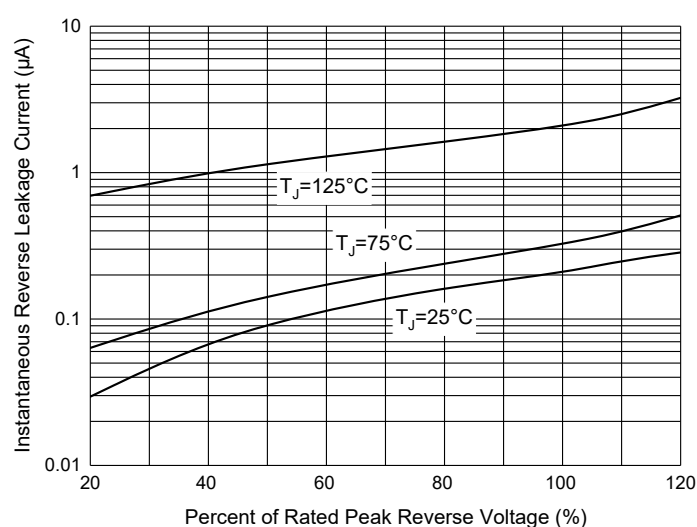


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device           | Packing                      |
|------------------|------------------------------|
| (Part Number)-TP | Tape&Reel: 5Kpcs/Reel        |
| (Part Number)-AP | Ammo Packing: 5Kpcs/Ammo Box |
| (Part Number)-BP | Bulk:1Kpcs/Box,50Kpcs/Carton |

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

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