

## Features

- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)
- Fast Switching Speed For High Efficiency
- Glass Passivated Junction
- Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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: 15°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| FR601GP         | FR601GP        | 50V                                    | 35V                 | 50V                         |
| FR602GP         | FR602GP        | 100V                                   | 70V                 | 100V                        |
| FR603GP         | FR603GP        | 200V                                   | 140V                | 200V                        |
| FR604GP         | FR604GP        | 400V                                   | 280V                | 400V                        |
| FR605GP         | FR605GP        | 600V                                   | 420V                | 600V                        |
| FR606GP         | FR606GP        | 800V                                   | 560V                | 800V                        |
| FR607GP         | FR607GP        | 1000V                                  | 700V                | 1000V                       |

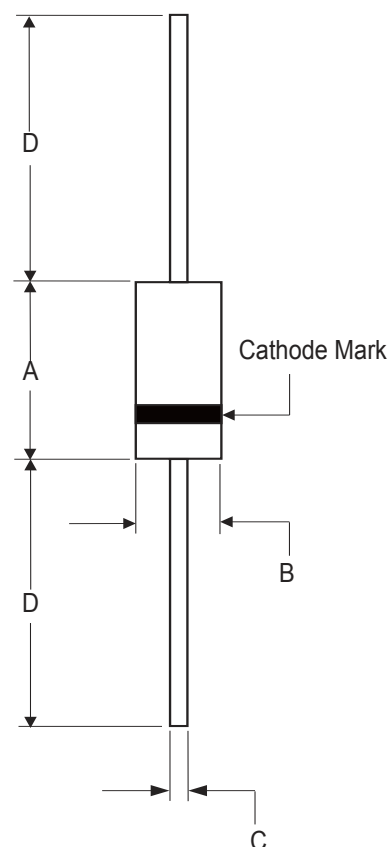
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                                |             |                                         |                                                         |
|--------------------------------------------------------------------------------|-------------|-----------------------------------------|---------------------------------------------------------|
| Average Forward Current                                                        | $I_{F(AV)}$ | 6.0A                                    | $T_A=55^\circ\text{C}$                                  |
| Peak Forward Surge Current                                                     | $I_{FSM}$   | 200A                                    | 8.3ms, Half Sine                                        |
| Maximum Instantaneous Forward Voltage                                          | $V_F$       | 1.30V                                   | $I_{FM}=6.0\text{A}; T_J=25^\circ\text{C}$              |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                        | $I_R$       | 10.0 $\mu\text{A}$<br>150 $\mu\text{A}$ | $T_J=25^\circ\text{C}; T_J=100^\circ\text{C}$           |
| Maximum Reverse Recovery Time<br>FR601GP~FR604GP<br>FR605GP<br>FR606GP~FR607GP | $t_{rr}$    | 150ns<br>250ns<br>500ns                 | $I_F=0.5\text{A}; I_R=1.0\text{A}; I_{rr}=0.25\text{A}$ |
| Typical Junction Capacitance                                                   | $C_J$       | 150pF                                   | Measured at 1.0MHz<br>$V_R=4.0\text{V}$                 |

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

# 6 Amp Fast Recovery Rectifier 50 to 1000 Volts

R-6



| DIMENSIONS |        |       |       |       | NOTE |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       |      |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.340  | 0.360 | 8.60  | 9.10  |      |
| B          | 0.340  | 0.360 | 8.60  | 9.10  |      |
| C          | 0.048  | 0.052 | 1.20  | 1.32  |      |
| D          | 1.000  | ----- | 25.40 | ----- |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

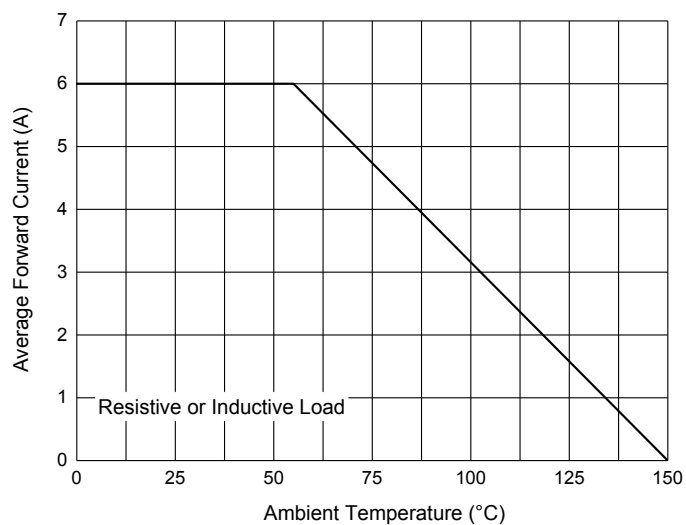


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

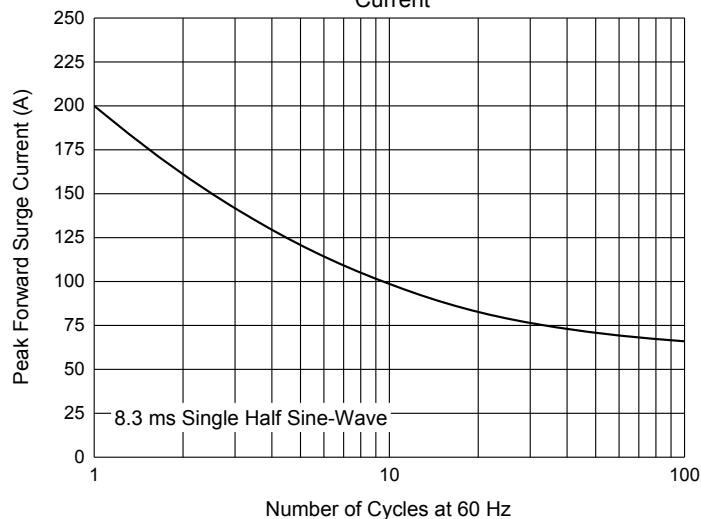


Fig. 3 - Typical Instantaneous Forward Characteristics

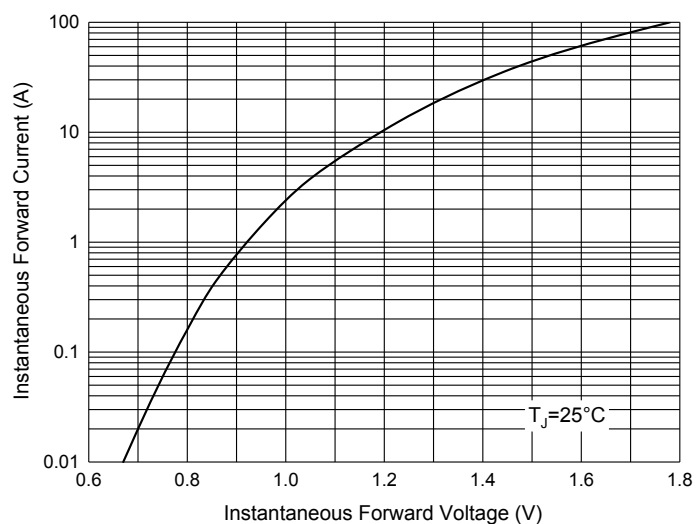
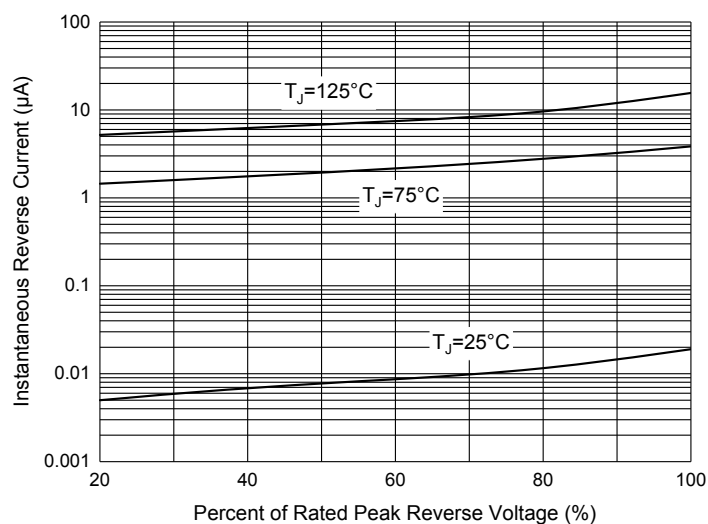


Fig. 4 - Typical Reverse Characteristics



## Ordering Information

| Device           | Packing                          |
|------------------|----------------------------------|
| (Part Number)-TP | Tape&Reel: 500pcs/Reel           |
| (Part Number)-AP | Ammo Packing: 450pcs/Ammo Box    |
| (Part Number)-BP | Bulk: 200pcs/Box ;4.8Kpcs/Carton |

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

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