

# MURF3020CTR – MURF3060CTR

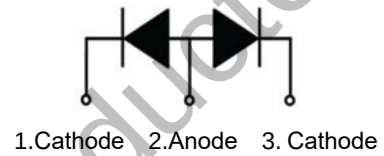
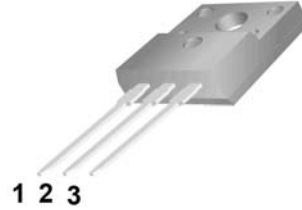
## 30 Amps Super Fast Recovery



### Features:

- ☐ High surge capacity
- ☐ Low Forward Voltage Drop.
- ☐ High Current Capability.
- ☐ Super Fast Switching Speed For High Efficiency

TO-220F



### Maximum Ratings (Per Leg) At Ta=25°C Unless Otherwise Specified

| Parameter                                                                                              |            | Symbols         | MURF3020CTR | MURF3040CTR | MURF3060CTR | Units |
|--------------------------------------------------------------------------------------------------------|------------|-----------------|-------------|-------------|-------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                |            | $V_{RRM}$       | 200         | 400         | 600         | V     |
| Maximum RMS voltage                                                                                    |            | $V_{RMS}$       | 140         | 280         | 420         | V     |
| Maximum DC Blocking Voltage                                                                            |            | $V_{DC}$        | 200         | 400         | 600         | V     |
| Maximum Average Forward Rectified Current                                                              | Per Leg    | $I_{F(AV)}$     | 15          |             |             | A     |
|                                                                                                        | per device |                 | 30          |             |             |       |
| Peak Forward Surge Current,8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method) |            | $I_{FSM}$       | 240         |             |             | A     |
| Instantaneous forward voltage at 15A<br>per leg                                                        |            | $V_F$           | 1.2         | 1.5         | 1.9         | V     |
| Maximum instantaneous reverse current at rated<br>Ta=25°C<br>DC blocking voltage<br>Ta=125°C           |            | $I_R$           | 5<br>300    |             |             | uA    |
| Maximum Reverse Recovery Time NOTE 1                                                                   |            | $t_{rr}$        | 45          |             |             | nS    |
| Typical Thermal Resistance                                                                             |            | $R_{\theta JC}$ | 4           |             |             | °C/W  |
| Operating Junction Temperature Range                                                                   |            | $T_J$           | -55 ~ +150  |             |             | °C    |
| Storage Temperature Range                                                                              |            | $T_{STG}$       | -55 ~ +150  |             |             | °C    |

Note1: Reverse recovery test conditions  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$

## Typical Characteristics

Fig.1 Forward Current Derating Curve

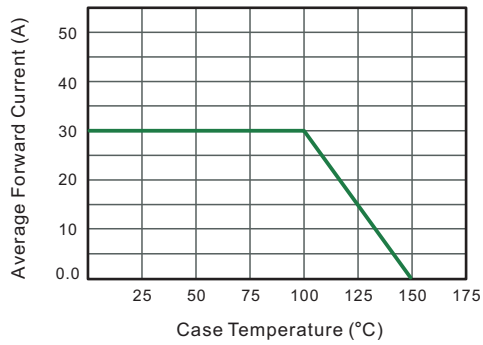


Fig.2 Typical Instantaneous Reverse Characteristics

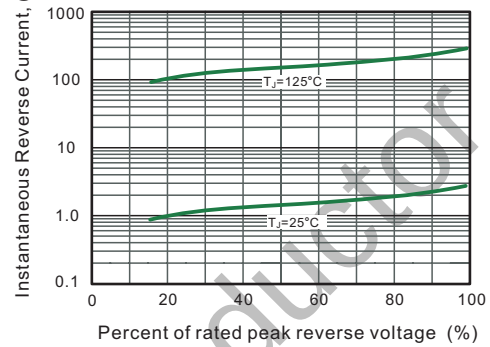


Fig.3 Typical Forward Characteristic

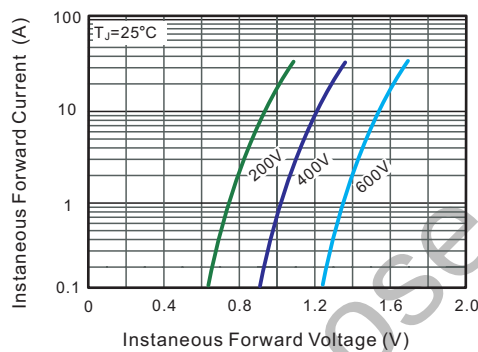
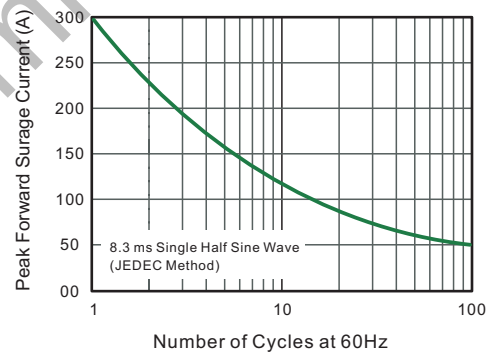


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



**Package Dimension**

**TO-220F**

