# MUR7560

| ULTRA FAST RECTIFIERS | REVERSE VOLTAGE - **600** Volts<br>FORWARD CURRENT - **75.0** Amperes |
|---|---|

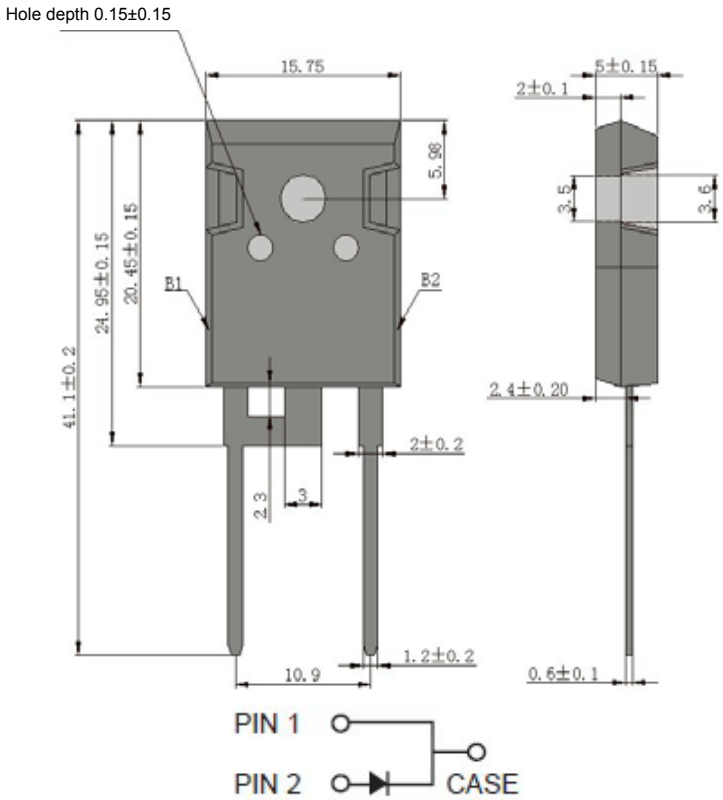
## FEATURES

- ●Fred Chip Planar Construction
- ●Soft Recovery Characteristics
- ●Low Forward Voltage Drop
- ●UltraFast Recovery Time
- ●Low Leakage Current
- ●Case:JEDEC TO-247AC,Molded Plastic
- ●Plastic Case Material has UL Flammability Classification Rating 94V-O

## APPLICATIONS

- ●Free Wheeling Diode in Converters
- ●Antiparallel Diode For High Hrequency Switching Devices
- ●Rectifiers in Switch Mode Power Supplies
- ●Ultrasonic Cleaners and Welders
- ●Plating Power Supply
- ●PFC , UPS

**TO-247AC**




Dimensions in milimeters

## Absolute Maximum Ratings

$T_C$=25℃ unless otherwise specified.

| Parameter | Symbol | Test Condition | Values | Unit |
|---|---|---|---|---|
| Maximun D.C Reverse Voltage | $V_R$ | | 600 | V |
| Maximun Repetitive Reverse Voltage | $V_{RRM}$ | | 600 | V |
| Average Forward Current | $I_{F(AV)}$ | $T_C$=80℃ | 75 | A |
| RMS Forward Current | $I_{F(RMS)}$ | $T_C$=110℃ | 90 | A |
| Non-Repetitive Surge Forward Current | $I_{FSM}$ | $T_J$=45℃,t=10ms,50Hz,Sine | 700 | A |
| Power Dissipation | $P_D$ | | 190 | W |
| Module-to-Sink | Torque | | 1.1 | N.m |
| Thermal Resistance | $R_{\theta JC}$ | Junction-to-Case | 0.8 | ℃/W |
| Operating Temperature Range | $T_J$ | | -40 to +150 | ℃ |
| Storage Temperature Range | $T_{STG}$ | | -40 to +150 | ℃ |
| | Weight | | 6.4 | g |

## Electrical Charateristics

$T_C$=25℃ unless otherwise specified.

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Reverse Leakage Current | $I_{RM}$ | $V_R$=600V | - | - | 250 | uA |
| | | $V_R$=600V,$T_J$=125℃ | - | - | 500 | uA |
| Forward Voltage | $V_F$ | $I_F$=75A | - | - | 2.1 | V |
| | | $I_F$=75A,$T_J$=125℃ | - | 1.85 | - | V |
| Reverse Recovery Time | Trr | $I_F$=1A.$V_R$=30V,diF/dt=-200A/us | - | 55 | - | ns |
| Reverse Recovery Time | Trr | $V_R$=300V, $I_F$=75A | - | 60 | - | ns |
| Maximum Reverse Recovery Current | $I_{RRM}$ | diF/dt=-200A/us,$T_J$=25℃ | - | 11 | - | A |
| Reverse Recovery Time | Trr | $V_R$=300V, $I_F$=75A | - | 230 | - | ns |
| Maximum Reverse Recovery Current | $I_{RRM}$ | diF/dt=-200A/us,$T_J$=125℃ | - | 22 | - | A |

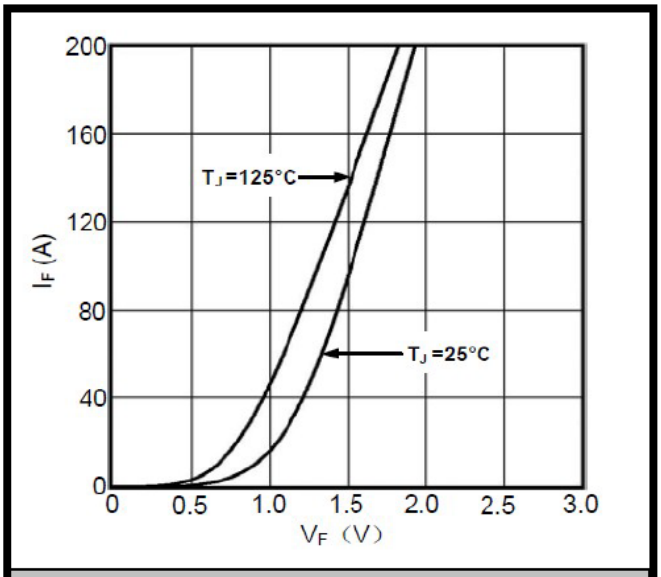



Fig 1. Forward Voltage Drop vs Forward

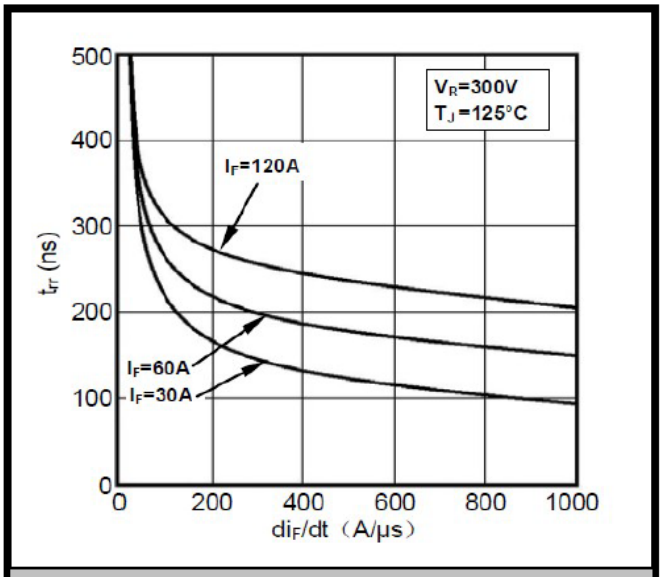



Fig 2. Reverse Recovery Time vs dif/dt

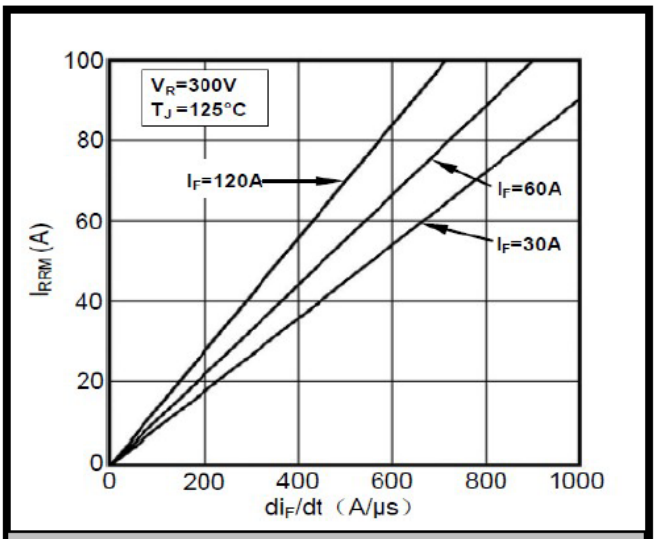



Fig 3. Reverse Recovery Current vs dif/dt

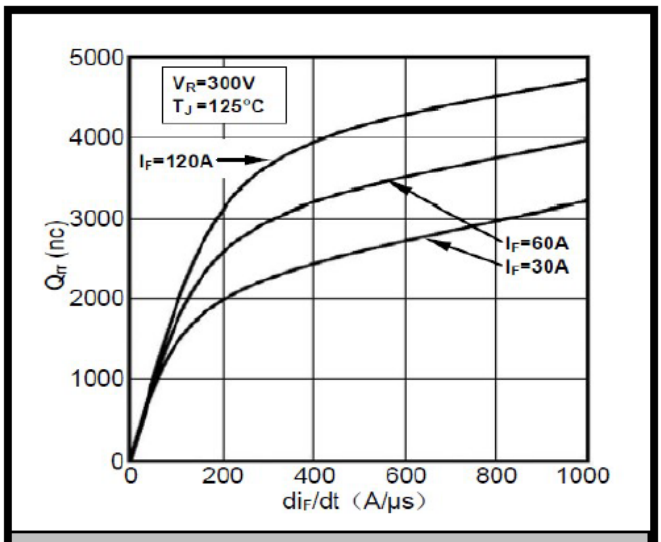



Fig 4. Reverse Recovery charge vs dif/dt

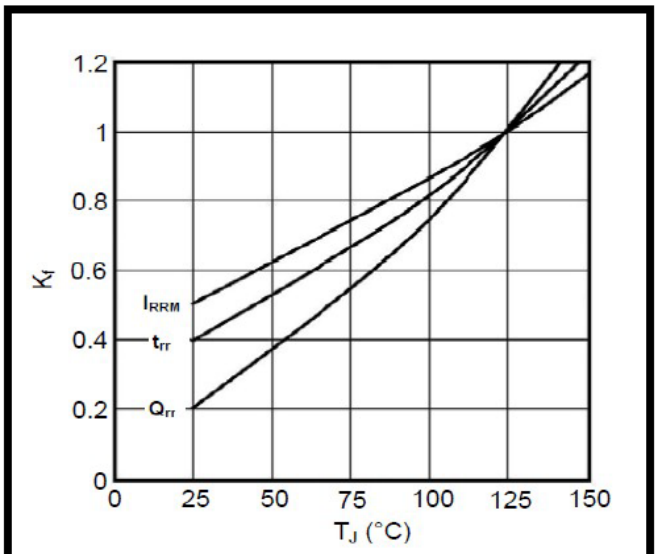



Fig 5. Dynamic Parameters vs Junction Temperature

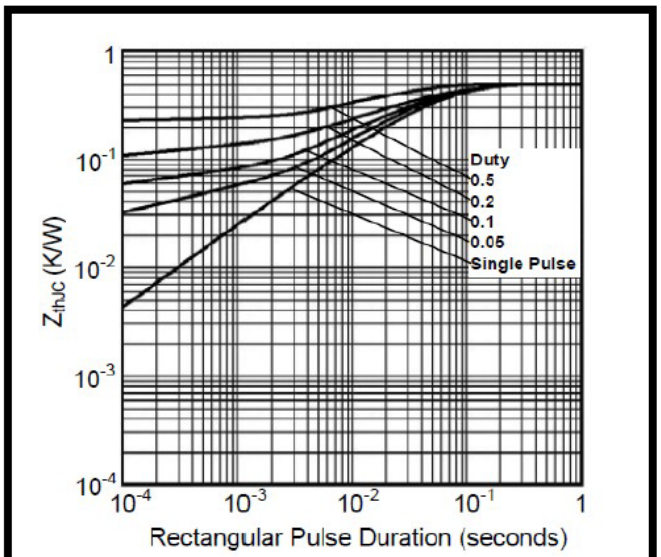



Fig 6. Transient Thermal Impedance