

Features

- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

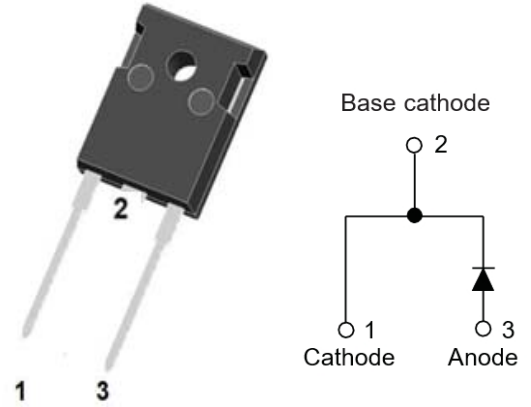
Typical Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-247AC
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

TO-247AC



■ Maximum Ratings (T_j=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | MUR3060P |
|--|------------------|------------------|------------|
| Device marking code | | | MUR3060P |
| Repetitive Peak Reverse Voltage | VRRM | V | 600 |
| Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1) | I _O | A | 30 |
| Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C | IFSM | A | 350 |
| Current Squared Time @1ms≤t≤8.3ms T _j =25°C, | I ² t | A ² s | 373 |
| Single Pulse Avalanche Energy @ Tp=40uS, T _j =25°C,L=15mH | EAS | mJ | 210 |
| Storage Temperature | T _{stg} | °C | -55 ~ +175 |
| Junction Temperature | T _j | °C | -55 ~ +175 |
| Junction capacitance @4V,1MHz | C _j | pF | 195 |

■ Electrical Characteristics

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | Min | Typ | Max |
|---|------------|------|--|-----|------|------|
| Instantaneous forward voltage drop per diode | V_{FM} | V | $I_{FM}=30.0A$ @ $T_j=25^{\circ}C$ | - | 1.65 | 1.85 |
| | | | $I_{FM}=30.0A$ @ $T_j=125^{\circ}C$ | | 1.55 | 1.70 |
| DC reverse current at rated DC blocking voltage per diode | I_{RRM1} | uA | $V_{RM}=V_{RRM}$ $T_j=25^{\circ}C$ | - | - | 5.0 |
| | I_{RRM2} | | $V_{RM}=V_{RRM}$ $T_j=125^{\circ}C$ | - | - | 200 |
| Reverse Recovery Time | T_{rr} | ns | $I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25^{\circ}C$ | - | 35 | 40 |
| Peak recovery current | I_{RRM} | A | $T_j=25^{\circ}C$ | - | 6.5 | - |
| | | | $T_j=125^{\circ}C$ | | | |
| Reverse recovery charge | Q_{rr} | nC | $T_j=25^{\circ}C$ | - | 590 | - |
| | | | $T_j=125^{\circ}C$ | - | 2705 | - |

■ Thermal Characteristics ($T_j=25^{\circ}C$ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | MUR3060P |
|--------------------|---------------------------|------------------|---------------|----------|
| Thermal Resistance | Between junction and case | $R_{\theta J-C}$ | $^{\circ}C/W$ | 1.0 |
| | Between junction and Air | $R_{\theta J-A}$ | $^{\circ}C/W$ | 50 |

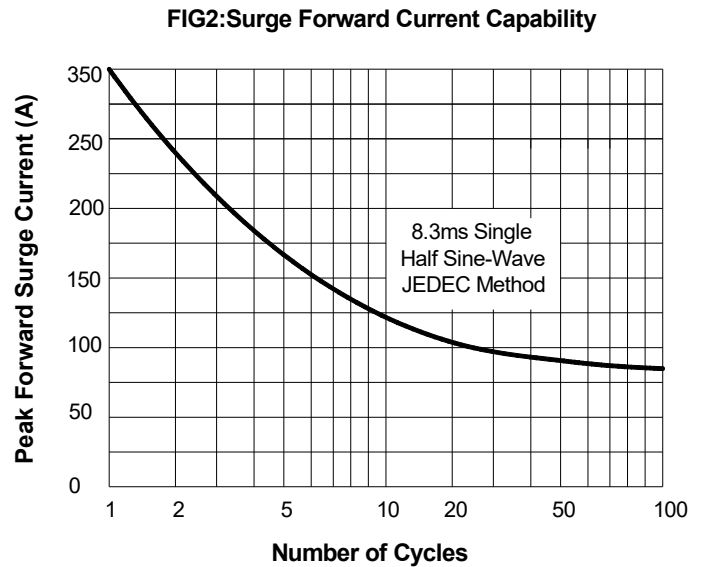
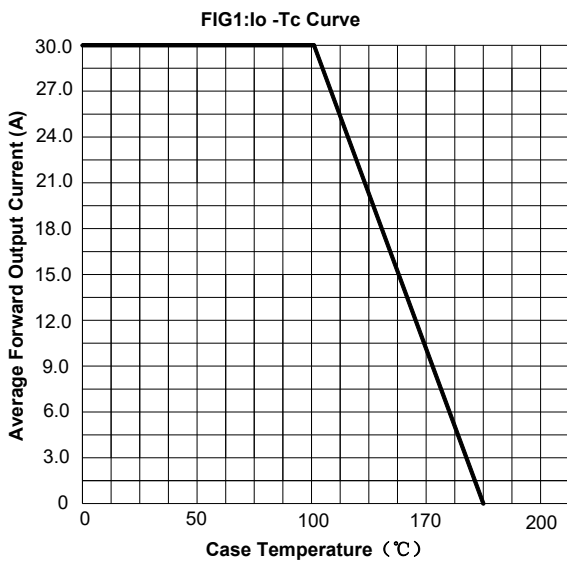
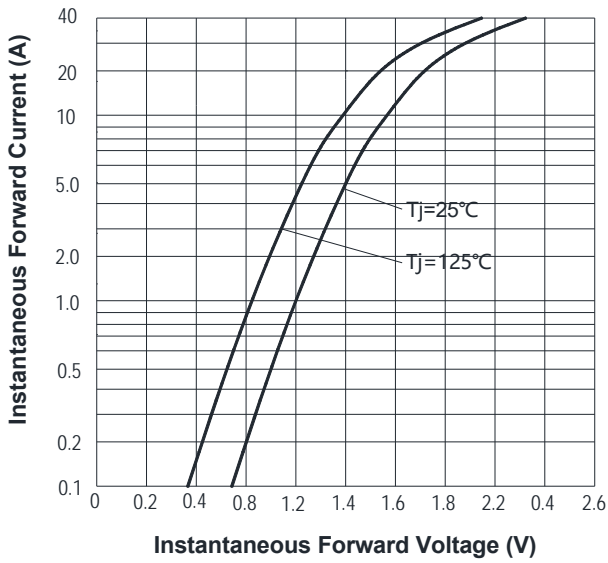
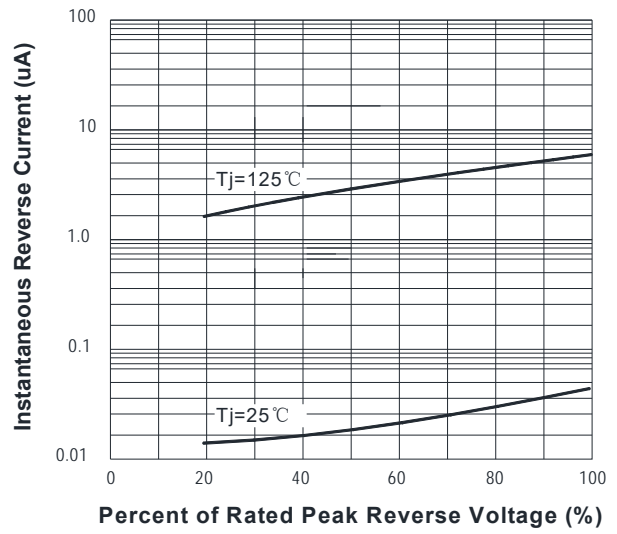
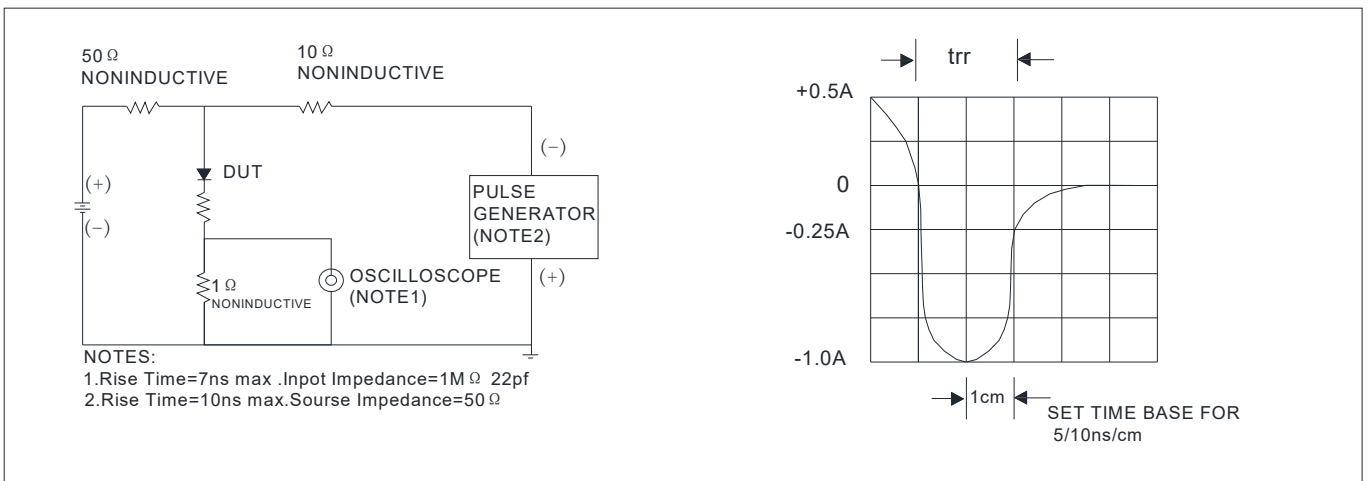
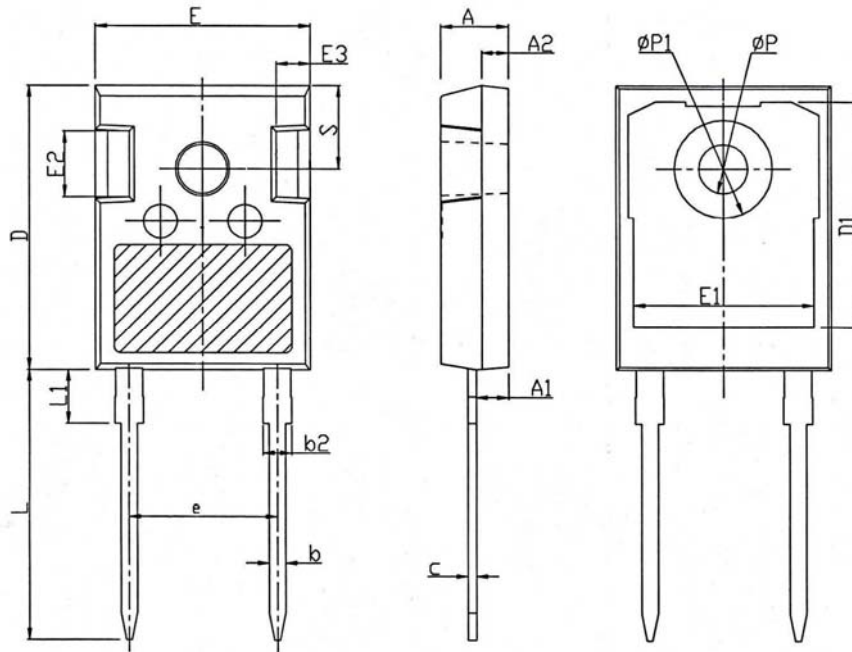
■ Characteristics(Typical)


FIG3: Forward Voltage

FIG.4: Instantaneous Reverse Characteristics

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time


■ Outline Dimensions



| TO247-AC | | |
|-----------|-----------|-------|
| Dim | Min | Max |
| A | 4.80 | 5.20 |
| A1 | 2.21 | 2.61 |
| A2 | 1.85 | 2.15 |
| b | 1.11 | 1.36 |
| b2 | 1.91 | 2.21 |
| c | 0.51 | 0.75 |
| D | 20.70 | 21.30 |
| D1 | 16.25 | 16.85 |
| E | 15.50 | 16.10 |
| E1 | 13.00 | 13.60 |
| E2 | 4.80 | 5.20 |
| E3 | 2.30 | 2.70 |
| e | 10.88 TYP | |
| L | 19.62 | 20.22 |
| L1 | - | 4.30 |
| ϕP | 3.40 | 3.80 |
| $\phi P1$ | - | 7.30 |
| S | 6.15 TYP | |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rectifiers](#) category:

Click to view products by [LGE](#) manufacturer:

Other Similar products are found below :

[70HFR40](#) [FR105 R0](#) [RL252-TP](#) [1N5397](#) [1N4005-TR](#) [1N4007-BP](#) [UFS120Je3/TR13](#) [20ETS12S](#) [RRE02VS6SGTR](#) [MS306](#) [A1N5404G-G](#)
[CRF02\(T5L,TEMQ\)](#) [ACGRB207-HF](#) [CLH07\(TE16L,Q\)](#) [CLH03\(TE16L,Q\)](#) [1N5395-TP](#) [UES1302](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [DZ-](#)
[1380](#) [85HFR60](#) [40HFR60](#) [70HF120](#) [85HFR80](#) [SCF7500](#) [SM100](#) [ACGRA4001-HF](#) [SKN70/08](#) [NTE5819](#) [NTE5827](#) [NTE5828](#) [NTE5911](#)
[NTE5915](#) [NTE6104](#) [NTE6163](#) [NTE6164](#) [NTE6165](#) [NTE6364](#) [TSD3G](#) [SET130312](#) [NRVUS110VT3G](#) [UES1106](#) [UES1306](#)
[NRVUS240VT3G](#) [D5FE60-5063](#) [R4000GPS-TP](#) [D4015L56TP](#) [UES1306HR2](#) [FX20K120](#) [D20XB60-7101](#)