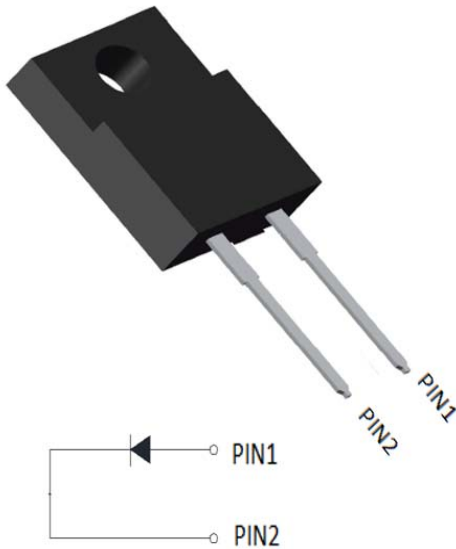


Fast Recovery Epi Diodes



Features

- High frequency operation
- High surge forward current capability
- 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:** ITO-220AC
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

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

| PARAMETER | SYMBOL | UNIT | MUR560F |
|--|------------------|------------------|------------|
| Device marking code | | | MUR560F |
| Repetitive Peak Reverse Voltage | VRRM | V | 600 |
| Average Rectified Output Current @60Hz sine wave, R-load, T _c =118°C | I _O | A | 5 |
| Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C | I _{FSM} | A | 50 |
| Current Squared Time @1ms≤t≤8.3ms T _j =25°C, | I ² t | A ² s | 10 |
| Storage Temperature | T _{stg} | °C | -55 ~ +150 |
| Junction Temperature | T _j | °C | -55 ~ +150 |

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | MUR560F |
|---|-------------------|------|---|---------|
| Maximum instantaneous forward voltage drop per diode | V _{FM} | V | I _{FM} =5.0A | 1.6 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM1} | uA | V _{RM} =VRRM T _a =25°C | 10 |
| | I _{RRM2} | | V _{RM} =VRRM T _a =125°C | 100 |
| Reverse Recovery Time | T _{rr} | ns | I _F =0.5A I _{RR} =0.25A I _{RM} =1A | 35 |



MUR560F

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | MUR560F |
|--------------------|---------------------------|-------------------|------|---------|
| Thermal Resistance | Between junction and case | R _{θj-c} | °C/W | 4.0 |

■ Ordering Information (Example)

| PREFERRED P/N | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| MUR560F | Approximate 0.31 | 2500 | 2500 | 25000 | Reel |

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

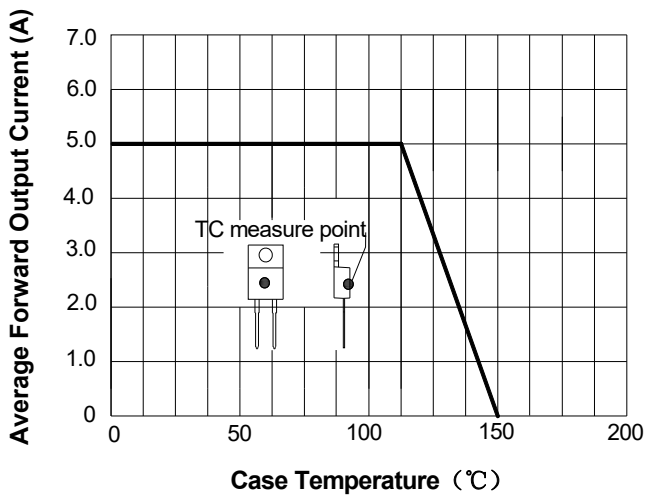


FIG2: Surge Forward Current Capability

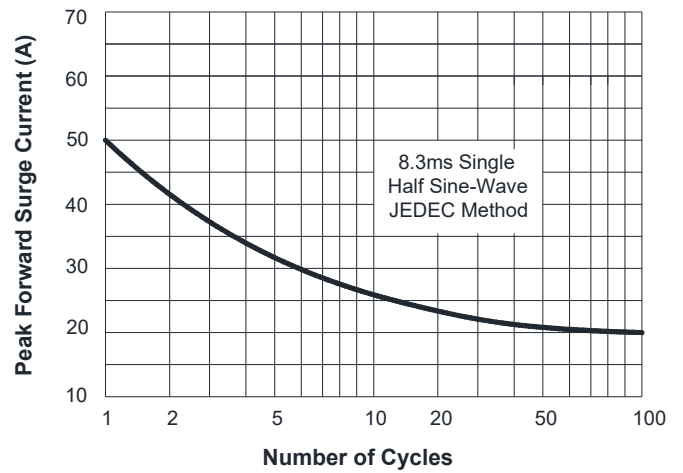


FIG3: Forward Voltage

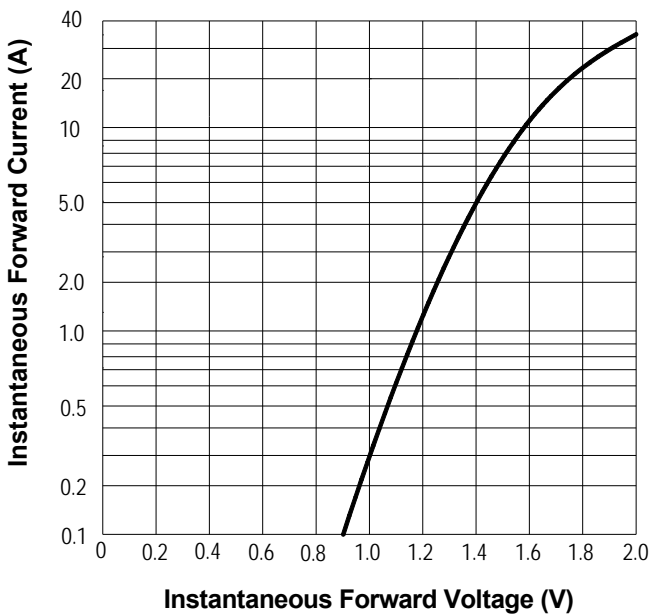


FIG.4: Instantaneous Reverse Characteristics

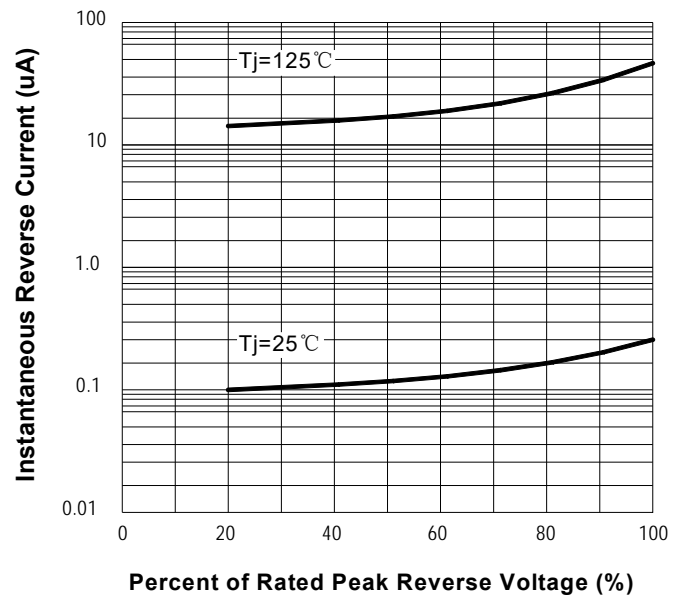
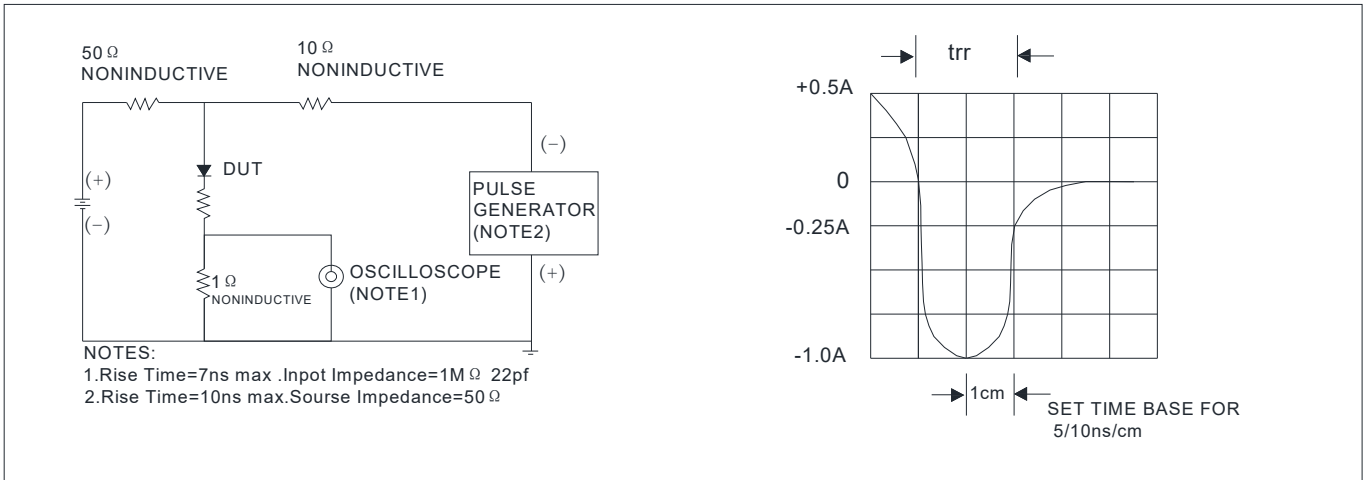
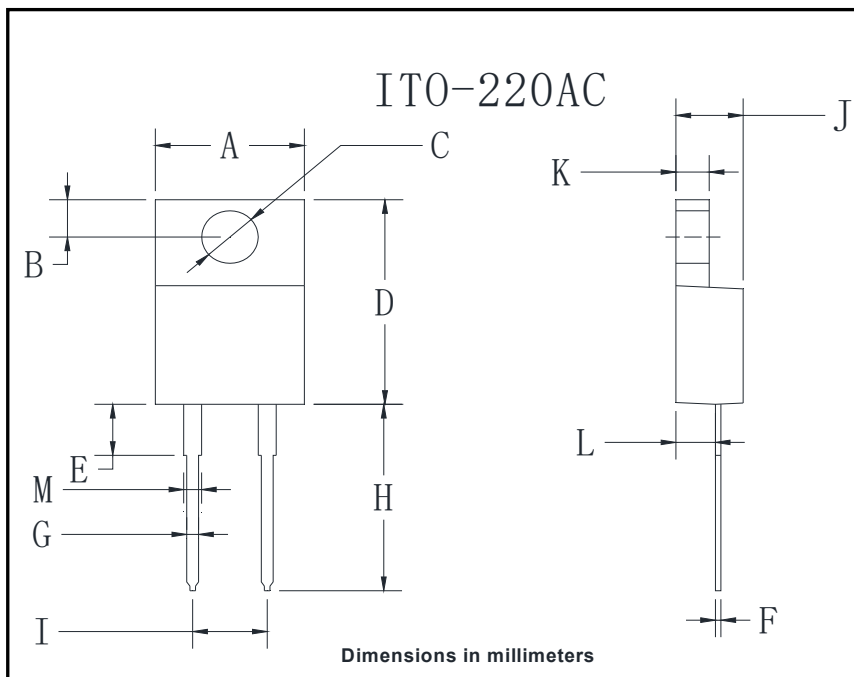


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



Outline Dimensions



| ITO-220AC | | |
|-----------|------|------|
| Dim | Min | Max |
| A | 9.7 | 10.7 |
| B | 2.15 | 3.25 |
| C | 2.6 | 3.8 |
| D | 14.4 | 15.9 |
| E | 3.1 | 4.5 |
| F | 0.4 | 0.8 |
| G | 0.4 | 0.9 |
| H | 12.7 | 14.2 |
| I | 3.6 | 5.9 |
| J | 3.9 | 5.1 |
| K | 2.1 | 3.56 |
| L | 2.1 | 3.2 |
| M | 1.0 | 1.8 |



MUR560F

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