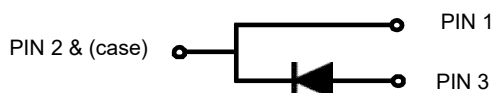


## Epitaxial Superfast Recovery Rectifier

**TO-247AC**  
**MURE3060APT**



### Features

- Low forward voltage drop
- Low leakage current
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability

### Mechanical Data

- Popular TO-247AC Package
- Case: Epoxy, Molded
- 150°C Operating Junction Temperature
- Ultrafast 50 Nanosecond Recovery Time

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| Parameter                                                                                                | Symbols                           | MURE3060APT | Units            |
|----------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                  | V <sub>RRM</sub>                  | 600         | V                |
| Maximum RMS voltage                                                                                      | V <sub>RMS</sub>                  | 420         | V                |
| Maximum DC Blocking Voltage                                                                              | V <sub>DC</sub>                   | 600         | V                |
| Maximum Average Forward Rectified Current                                                                | I <sub>(AV)</sub>                 | 30.0        | A                |
| Reverse Recovery Time.<br>IF=0.5A, IR=1A, IRR=0.25A                                                      | T <sub>rr</sub>                   | 50          | us               |
| Peak Forward Surge Current 8.3 ms Single<br>Half Sine Wave Superimposed on Rated<br>Load (JEDEC Method)  | I <sub>FSM</sub>                  | 300         | A                |
| I <sup>2</sup> t rating for fusing ( 1ms< t < 8.3 ms)                                                    | I <sup>2</sup> t                  | 373         | A <sup>2</sup> S |
| Maximum Forward Voltage at 30A and 25°C                                                                  | V <sub>F</sub>                    | 1.7         | V                |
| Maximum DC Reverse Current @T <sub>A</sub> =25 °C<br>at Rated DC Blocking Voltage @T <sub>A</sub> =125°C | I <sub>R</sub>                    | 10<br>500   | μA               |
| Typical Junction Capacitance (Note1)                                                                     | C <sub>j</sub>                    | 85          | pF               |
| Operating and Storage Temperature Range                                                                  | T <sub>j</sub> , T <sub>stg</sub> | -50 ~ +150  | °C               |
| Typical thermal resistance (Note 2)                                                                      | R <sub>thJC</sub>                 | 1.5         | °C/W             |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.

Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 20x20 mm copper pad per pin with heatsink

## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG1:Io -Tc Curve

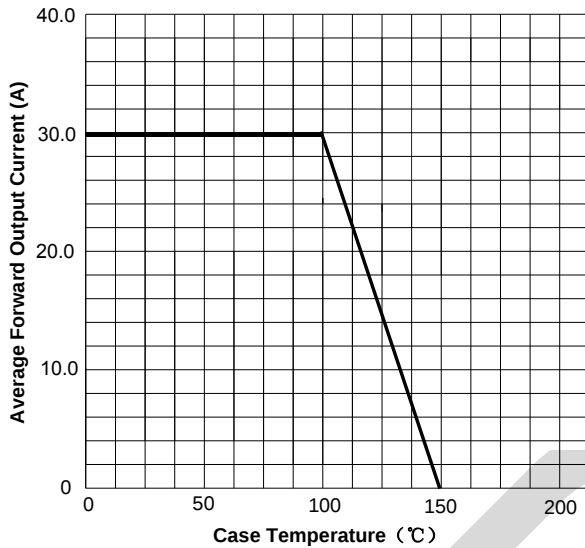


FIG2: Surge Forward Current Capability

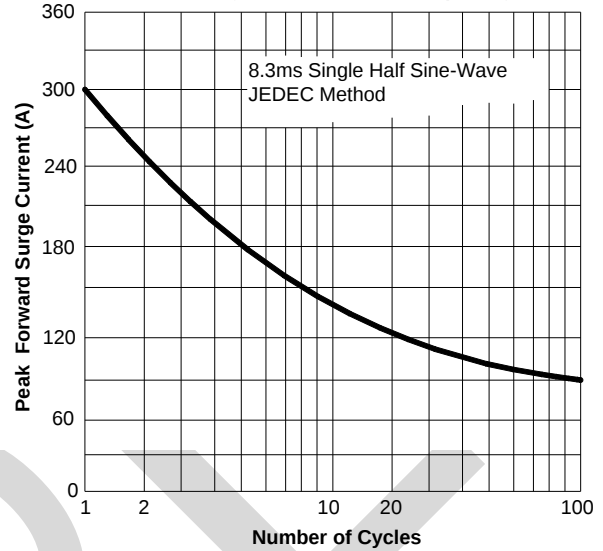


FIG3: Forward Voltage

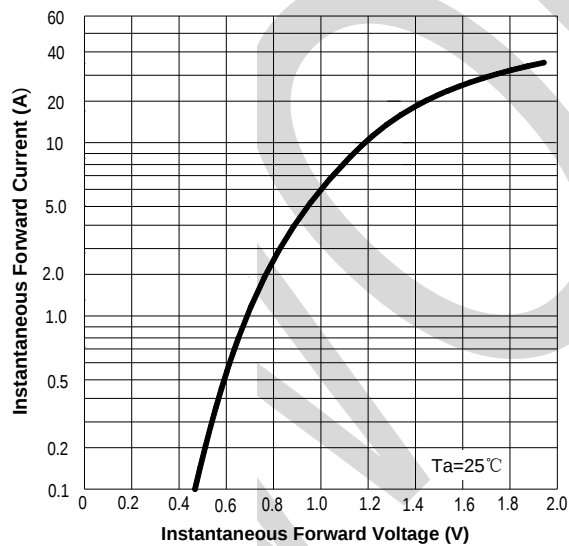
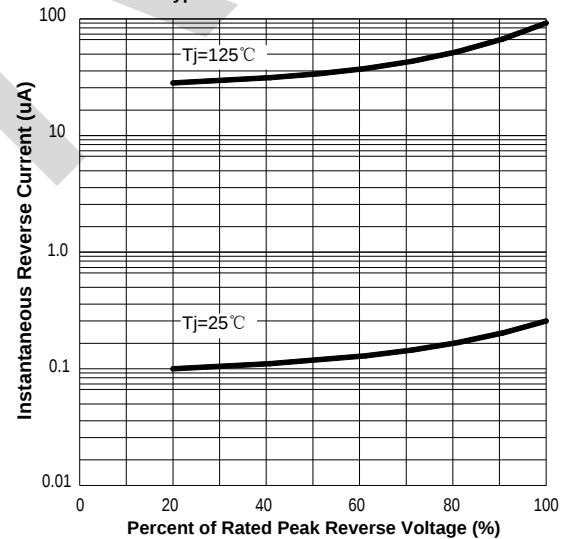


FIG4: Typical Reverse Characteristics



Note:unit mm

