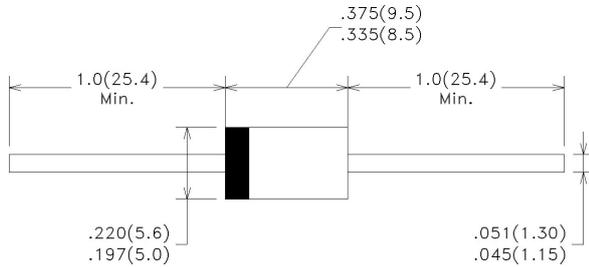


Package Outline Dimensions in mm (inches)

DO27



Reverse Voltage - 200 V

Forward Current - 4.0 A

Features

- Superfast Recovery times for high efficiency
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Typical Applications

- For use in switching power Supplies.

Mechanical Data

- Case: DO27 Plastic Package
- Polarity: Color band denotes cathode end

Maximum ratings

Ratings at TA=25°C (unless otherwise specified)

| Parameter | Symbol | MUR420 | Unit |
|--|--------------------|------------|------|
| Maximum recurrent peak reverse voltage | V _{RRM} | 200 | V |
| Maximum RMS voltage | V _{RMS} | 140 | V |
| Maximum DC blocking voltage | V _{DC} | 200 | V |
| Maximum average forward rectified current (Note1) | I _{F(AV)} | 4.0 | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 125 | A |
| Storage temperature range | T _S | -55 to 150 | °C |
| Operating Junction temperature range | T _J | -55 to 150 | °C |
| Thermal Resistance (Note1) | R _{thJA} | 20 | °C/W |

Note1: Vertical P.C.B. mounting, 12.7 mm lead length with 63.5 mm x 63.5 mm copper pad.

Electrical characteristics

Ratings at TA=25°C (unless otherwise specified)

| Parameter | Test Conditions | Sym bol | MUR420 | Unit |
|---|-----------------------|-----------------|--------|------|
| Maximum forward voltage | I _F =4.0 A | VF | 0.90 | V |
| Maximum DC reverse current at rated DC blocking voltage | TA=25°C | IR | 5.0 | μA |
| | TA=125°C | | 100 | |
| Maximum Reverse Recovery Time | RG1 | T _{rr} | 25 | ns |

Characteristics Curves

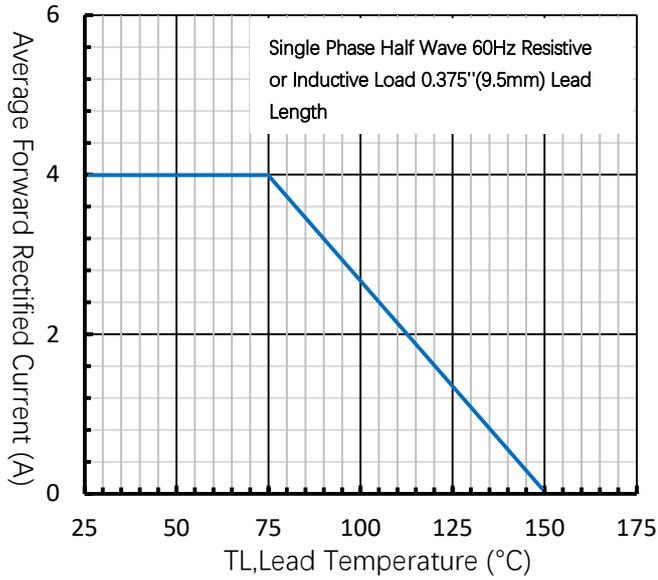


Fig.1 Forward Current Derating Curve

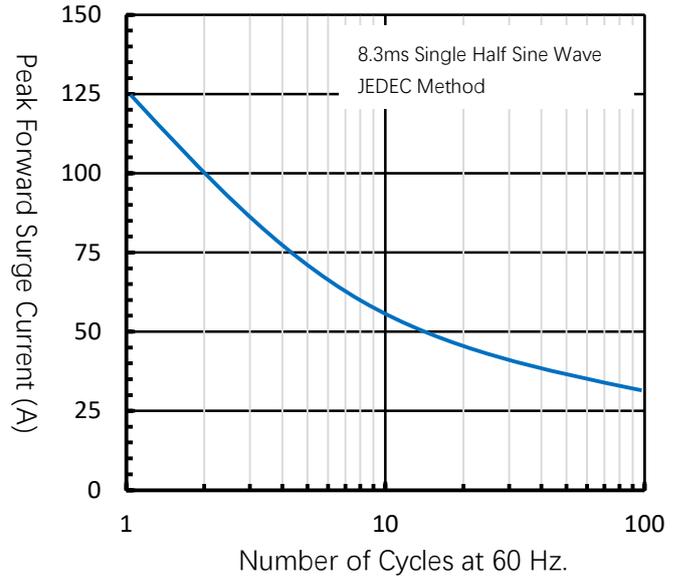


Fig.2 Forward Surge Current Capability

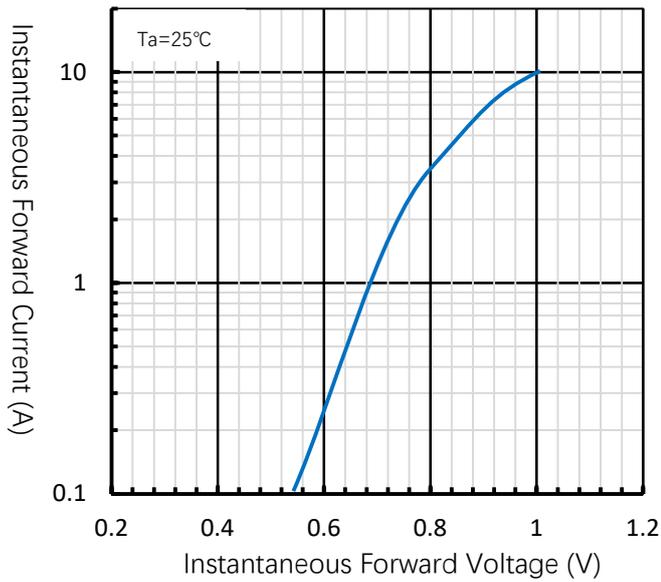


Fig. 3 Typical Forward Characteristic

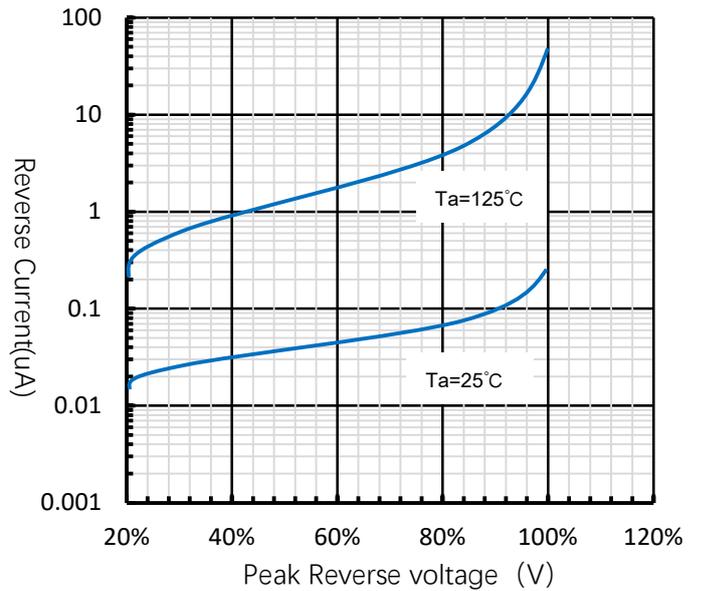


Fig. 4 Typical Reverse Characteristics