

MUR105 THRU MUR160

ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

VOLTAGE: 50 TO 600V

CURRENT: 1.0A

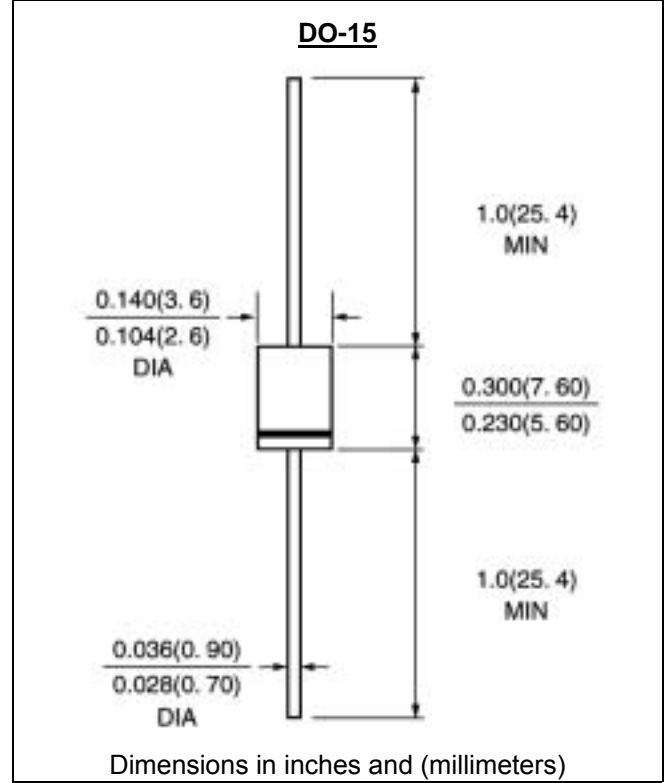


FEATURE

Ultrafast Nanosecond Recovery Times
150°C Operating Junction Temperature
Low Forward Voltage
Low Leakage Current
High Temperature Glass Passivated Junction

Mechanical Characteristics

Case: Epoxy, Molded
Weight: 0.4 gram (approximately)
Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
solder heat resistance :265degreeC Max. for 10 Seconds, 1/16" from case
Polarity: Cathode Indicated by Polarity Band



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | MUR 105 | MUR 110 | MUR 120 | MUR 130 | MUR 140 | MUR 160 | units |
|---|-----------------------------------|-------------|---------|---------|---------|---------|---------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | V _{rms} | 35 | 70 | 140 | 210 | 280 | 420 | V |
| Maximum DC blocking Voltage | V _{dc} | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current 3/8" lead length at Ta =55°C | I _{f(av)} | 1.0 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 35 | | | | | | A |
| Maximum Forward Voltage at rated Forward Current and 25°C | V _f | 0.875 | | | 1.25 | | | V |
| Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C | I _r | 10 | | | 50 | | | μA μA |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 25 | | | 50 | | | nS |
| Typical Junction Capacitance (Note 2) | C _j | 25 | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R(ja) | 27 | | | 50 | | | °C /W |
| Storage and Operating Temperature Range | T _{stg} , T _j | -55 to +150 | | | | | | °C |

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

Fig. 1 – Forward Current Derating Curve

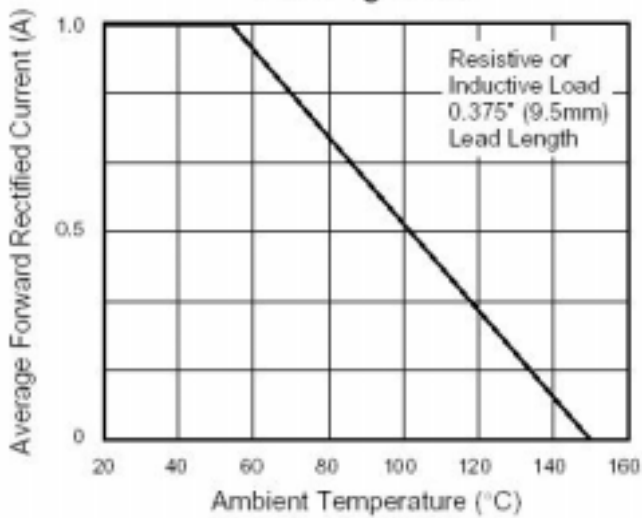


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

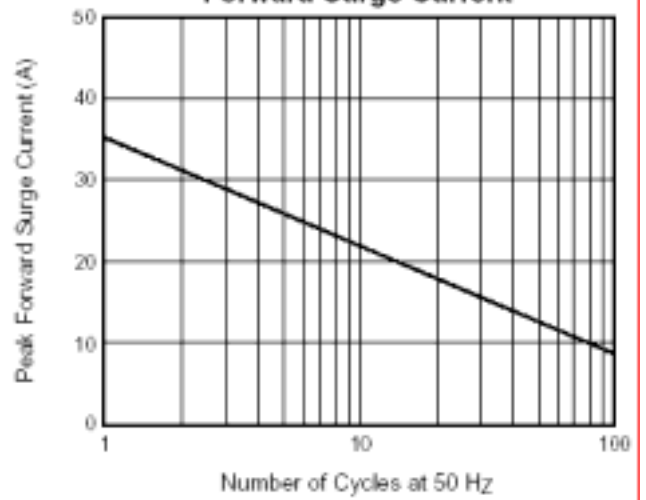


Fig. 3 – Typical Instantaneous Forward Characteristics

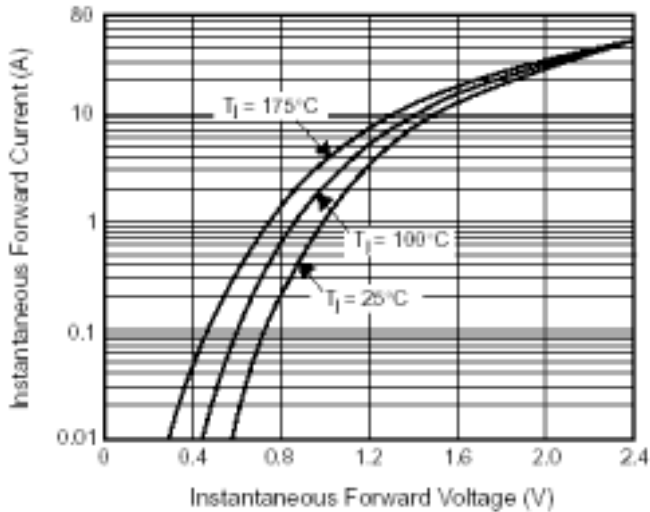


Fig. 4 – Typical Reverse Leakage Characteristics

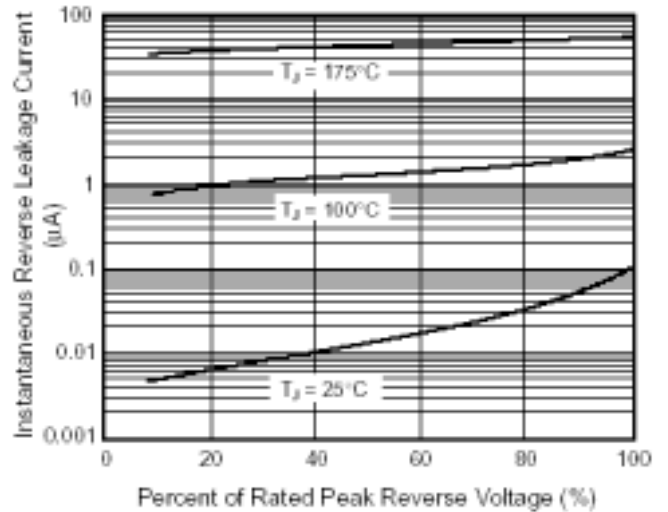


Fig. 5 – Typical Junction Capacitance

