

MUR2005C -MUR2060C

Super Fast Rectifiers

VOLTAGE RANGE: 50 --- 600 V

CURRENT: 20 A

TO-220AB

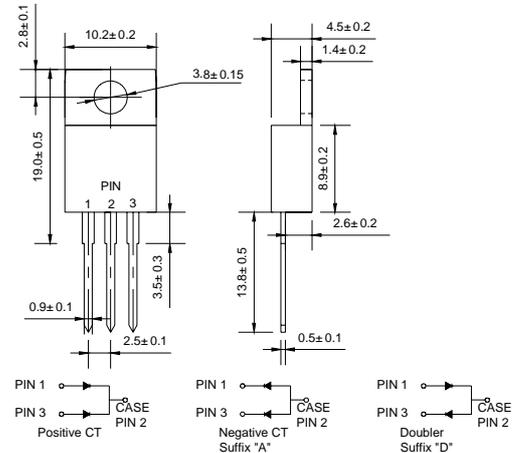


Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC TO-220AB, molded plastic
- ◇ Polarity: As marked
- ◇ Weight: 0.071 ounce, 2.006 grams
- ◇ Mounting position: Any



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

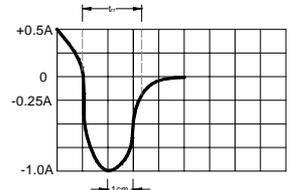
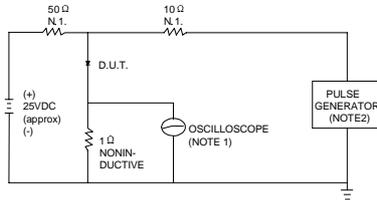
Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | MUR 2005C | MUR 2010C | MUR 2015C | MUR 2020C | MUR 2040C | MUR 2060C | UNITS |
|---|-------------|------------------|-----------|-----------|-----------|-----------|-----------|------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 150 | 200 | 400 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 105 | 140 | 280 | 420 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 150 | 200 | 400 | 600 | V |
| Maximum average forward rectified current @ $T_C = 95^\circ C$ | $I_{F(AV)}$ | 20 | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ C$ | I_{FSM} | 125 | | | | | | A |
| Maximum instantaneous forward voltage @ 10A | V_F | 0.975 | | | | 1.3 | 1.5 | V |
| Maximum reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 150^\circ C$ | I_R | 5.0 | | | | 10.0 | 500 | μA |
| Maximum reverse recovery time (Note1) | t_{rr} | 25 | | | | 50 | | ns |
| Operating junction temperature range | T_J | - 55 ----- + 150 | | | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | - 55 ----- + 150 | | | | | | $^\circ C$ |

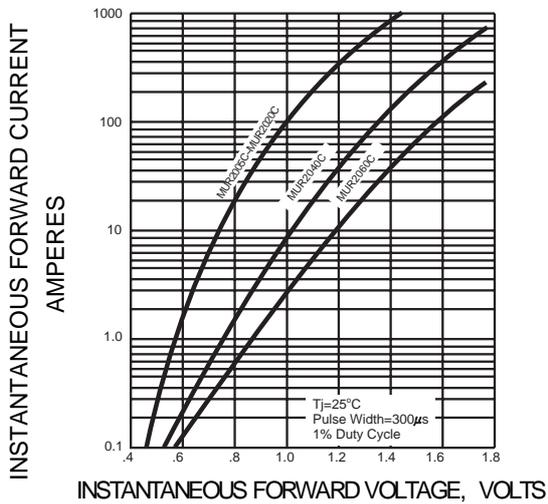
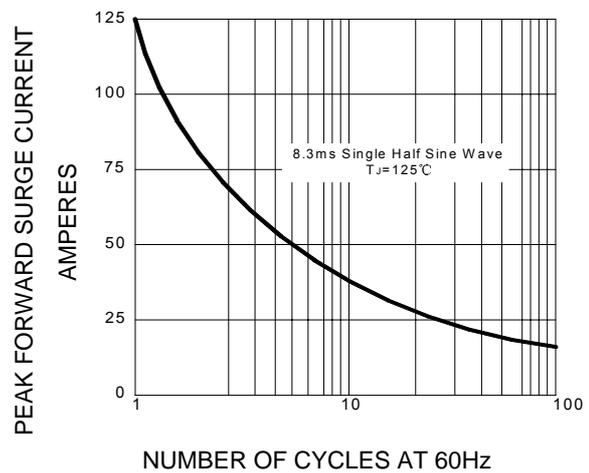
NOTE: 1. Measured with $I_F = 0.5A$, $I_R = 1A$, $I_{rr} = 0.25A$.

Ratings AND Characteristic Curves

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC


SET TIME BASE FOR 10/20 ns/cm

NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ. 22pF.
 2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

FIG.3 – PEAK FORWARD SURGE CURRENT

FIG.4-FORWARD DERATING CURVE
