

MUR12600CT

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 600Volts **CURRENT** 12 Amperes

T0-220AB

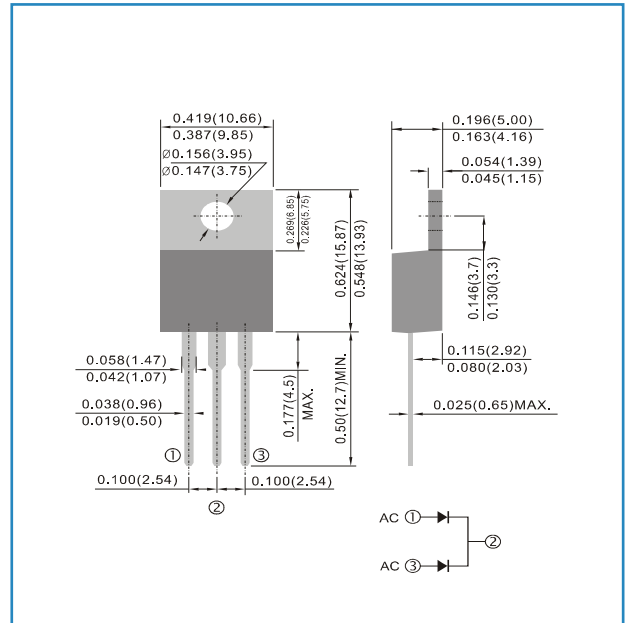
Unit : inch(mm)

Features

- ✦ High efficiency, low VF
- ✦ High current capability
- ✦ High reliability
- ✦ High surge current capability
- ✦ Low power loss.
- ✦ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application

Mechanical Data

- ✦ Case: TO-220AB Molded plastic
- ✦ Epoxy: UL 94V-0 rate flame retardant
- ✦ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✦ Polarity: As marked
- ✦ High temperature soldering guaranteed: 260°C/10 seconds .16",(4.06mm) from case.
- ✦ Weight: 2.24 grams



Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | MUR12600CT | Units |
|---|-----------------|-------------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 600 | V |
| Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_C = 100^\circ C$ | $I_{(AV)}$ | 12 | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 125 | A |
| Maximum Instantaneous Forward Voltage @ 5.0A | V_F | 1.5 | V |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$ | I_R | 1.0 400 | μA μA |
| Maximum Reverse Recovery Time (Note 1) | T_{rr} | 50 | nS |
| Typical Junction Capacitance (Note 2) | C_j | 60 | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JC}$ | 1.5 | $^\circ C/W$ |
| Operating Temperature Range | T_J | -65 to +150 | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -65 to +150 | $^\circ C$ |

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 3. Mounted on Heatsink Size of 2" x 3" x 0.25" Al-plate.

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RATING AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

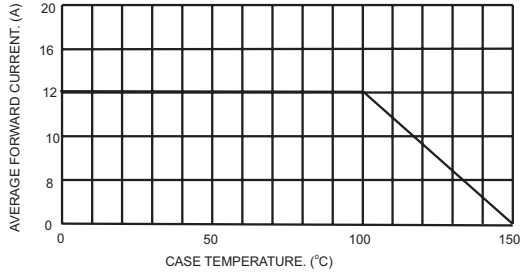


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

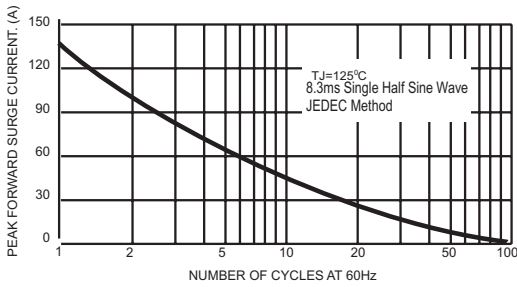


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

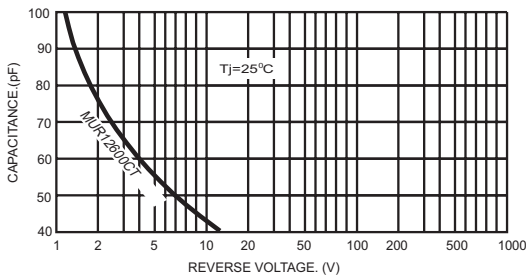


FIG.2-TYPICAL REVERSE CHARACTERISTICS

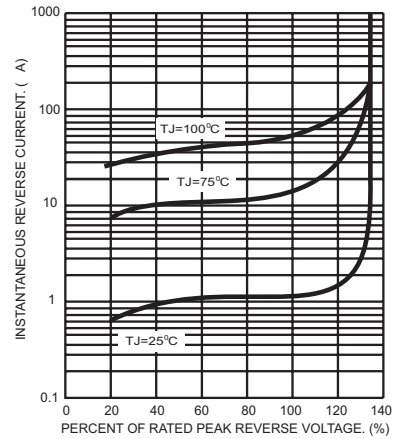


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER LEG

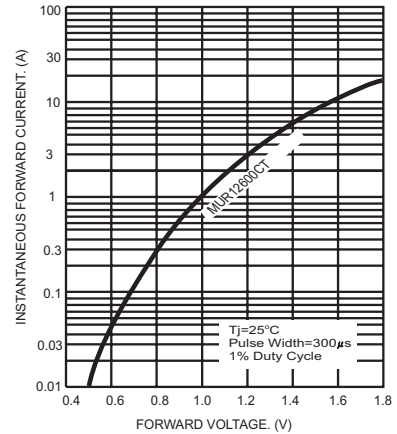


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

