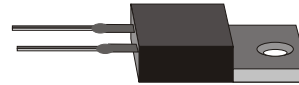


**VOLTAGE RANGE: 50 - 600V**

**CURRENT: 8.0A**



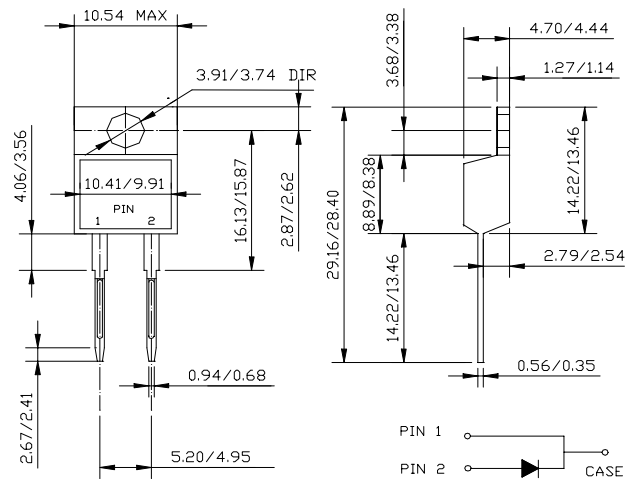
TO - 220AC

### Features

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents

### Mechanical Data

- Case: TO-220AC
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.064 ounces, 1.81 gram
- Mounting position: Any



### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

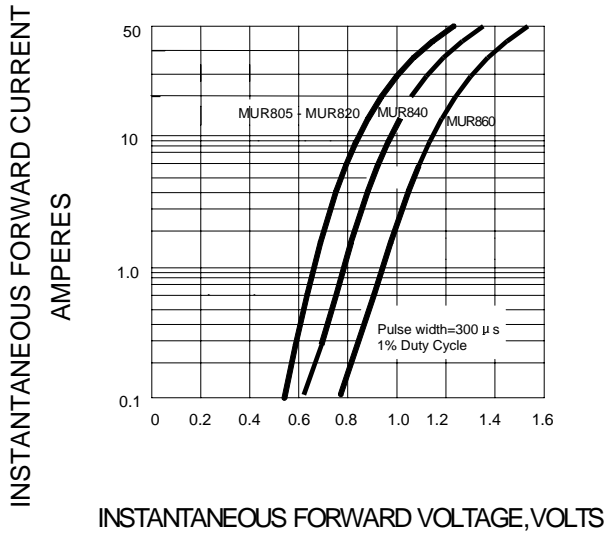
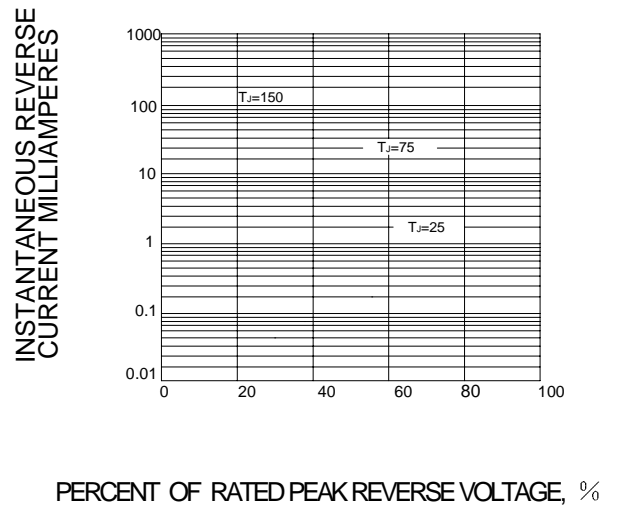
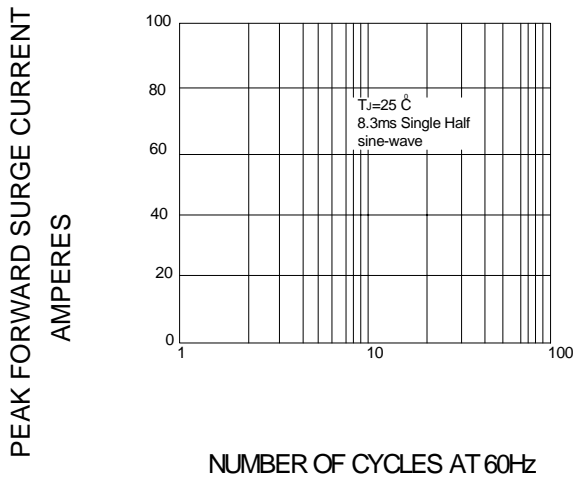
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic   | Symbol          | MUR 805         | MUR 810 | MUR 815 | MUR 820      | MUR 840 | MUR 860      | Unit    |
|--|-----------------|-----------------|---------|---------|--------------|---------|--------------|---------|
| 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<br>total device (rated $V_R$ ), $T_C=150$          | $I_{(AV)}$      | 8.0             |         |         |              |         |              | A       |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load      | $I_{FSM}$       | 100             |         |         |              |         |              | A       |
| Maximum instantaneous forward voltage (Note1)<br>@ $I_F=8.0A, T_C=25$<br>$I_F=8.0A, T_C=150$ | $V_F$           | 0.975<br>0.895  |         |         | 1.30<br>1.00 |         | 1.50<br>1.20 | V       |
| Maximum reverse current<br>at rated DC blocking voltage<br>@ $T_j=25$<br>$T_j=150$           | $I_R$           | 5.0<br>250      |         |         | 10<br>500    |         |              | $\mu A$ |
| Maximum reverse recovery time (Note2)<br>(Note3)   | $t_{rr}$        | 25<br>35        |         |         | 50<br>60     |         |              | ns      |
| Typical thermal resistance junction to case  | $R_{\theta JC}$ | 3.0             |         |         | 2.0          |         |              | /W      |
| Operating junction temperature range   | $T_j$           | - 65 ---- + 175 |         |         |              |         |              |         |
| Storage temperature range  | $T_{STG}$       | - 65 ---- + 175 |         |         |              |         |              |         |

NOTE: 1. Pulse test: pulse width=300 $\mu s$ , duty cycle 2.0%

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

3. Measured with  $I_F=1.0A, di/dt=50A/\mu s$ .

**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**

**FIG.2 – TYPICAL REVERSE CHARACTERISTICS**

**FIG.3 – PEAK FORWARD SURGE CURRENT**

**FIG.4 – FORWARD DERATING CURVE**
