

## MUR160

**Voltage: 600 Volts**

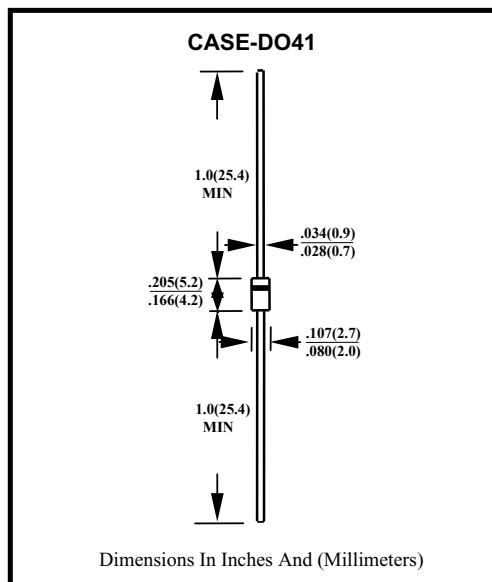
**Current: 1.0 A**

### Features

- Low power loss, high efficiency
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Speed Switching
- High Reliability
- High Current Surge
- Glass Passivated Chip Junction

### Mechanical data

- Case: GMolded Plastic
- Epoxy: GUI 94v-0 Rate Flame Retardant
- Lead: GMil-Std-202e Method 208c Guaranteed
- Mounting Position: GAny



## Maximum Ratings and Electrical Characteristics

| RATINGS   | SYMBOL    | MUR160        | 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<br>.375" (9.5mm) LEAD LENGTH AT $T_A=55^{\circ}C$ | $I_O$     | 1             | A             |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE<br>HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD       | $I_{FSM}$ | 35            | A             |
| TYPICAL JUNCTION CAPACITANCE (NOTE 1)   | $C_J$     | 20            | PF            |
| TYPICAL THERMAL RESISTANCE (NOTE 2)   | $R_{gja}$ | 15            | $^{\circ}C/W$ |
| STORAGE TEMPERATURE RANGE   | $T_{STG}$ | - 55 TO + 150 | $^{\circ}C$   |
| OPERATING TEMPERATURE RANGE   | $T_{OP}$  | - 55 TO + 150 | $^{\circ}C$   |

### ELECTRICAL CHARACTERISTICS ( $A_T T_A=25^{\circ}C$ UNLESS OTHERWISE NOTED)

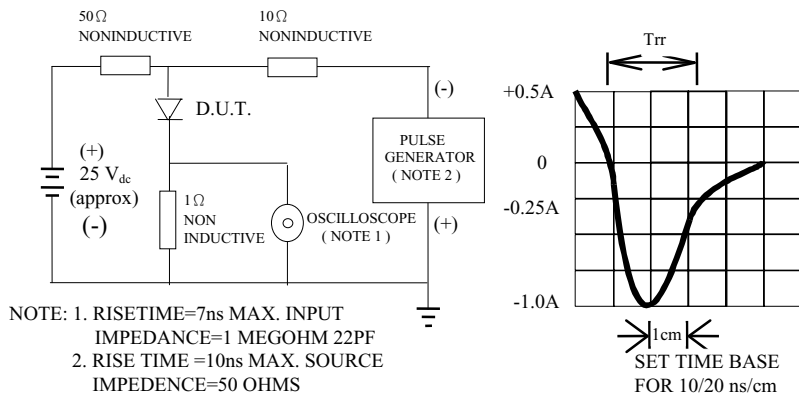
| CHARACTERISTICS                           | SYMBOL   | MUR160 | UNITS |
|---|----------|--------|-------|
| MAXIMUM FORWARD VOLTAGE AT $I_O$ DC       | $V_F$    | 1.25   | V     |
| MAXIMUM REVERSE CURRENT AT $25^{\circ}C$  | $I_R$    | 5      | mA    |
| MAXIMUM REVERSE CURRENT AT $100^{\circ}C$ | $I_R$    | 250    | mA    |
| MAXIMUM REVERSE RECOVERY TIME (NOTE 3)    | $T_{RR}$ | 50     | nS    |

NOTE:

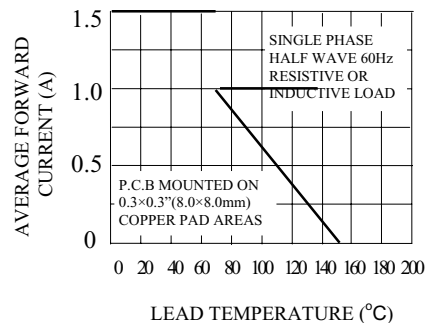
1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1(mm) COPPER PLATE AT LEAD LENGTH 5mm
3. REVERSE RECOVERY TEST CONDITIONS:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $IRR=0.25A$

## Rating and Characteristic Curves (MUR160)

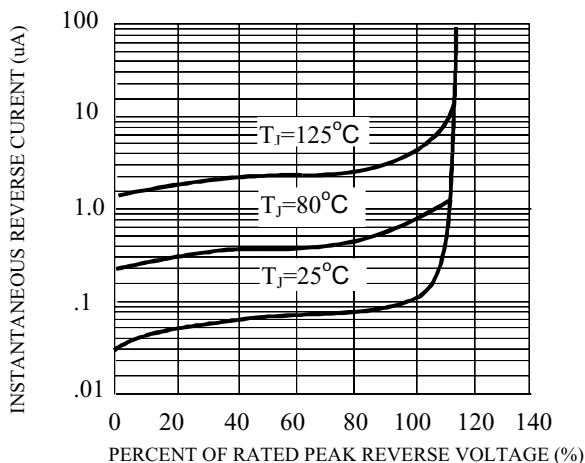
**FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



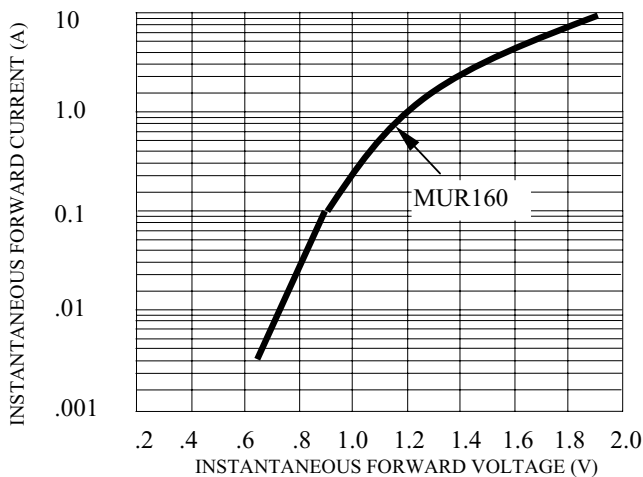
**FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE**



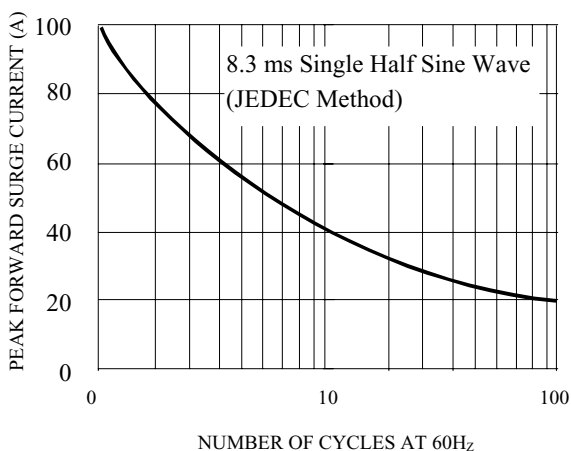
**FIG. 3-TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 6-TYPICAL JUNCTION CAPACITANCE**

