

## Ultra-Fast Recovery Diodes

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds

### ITO-220AB

PIN



### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

| Parameter                                                                                              | SYMBOLS    | MURF1020DCT | MURF1040DCT | MURF1060DCT | UNITS              |
|--------------------------------------------------------------------------------------------------------|------------|-------------|-------------|-------------|--------------------|
| Maximum repetitive peak reverse voltage                                                                | $V_{RRM}$  | 200         | 400         | 600         | V                  |
| Maximum RMS voltage                                                                                    | $V_{RMS}$  | 140         | 280         | 420         | V                  |
| Maximum DC blocking voltage                                                                            | $V_{DC}$   | 200         | 400         | 600         | V                  |
| Maximum average forward rectified current at $T_C=110^\circ\text{C}$ per device per diode              | $I_{(AV)}$ | 10.0<br>5.0 |             |             | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                     | $I_{FSM}$  | 50.0        |             |             | A                  |
| Maximum instantaneous forward voltage per diode at 5.0A                                                | $V_F$      | 1.0         | 1.3         | 1.6         | V                  |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$ | $I_R$      | 10<br>500   |             |             | $\mu\text{A}$      |
| Maximum reverse recovery time                                                                          | $T_{rr}$   | 35          |             |             | ns                 |
| Typical thermal resistance                                                                             | $R_{qJC}$  | 4.0         |             |             | $^\circ\text{C/W}$ |
| Operating junction temperature range                                                                   | $T_J$      | -55 to +175 |             |             | $^\circ\text{C}$   |
| Storage temperature range                                                                              | $T_{STG}$  | -55 to +175 |             |             | $^\circ\text{C}$   |

Note: 1. Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

## Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

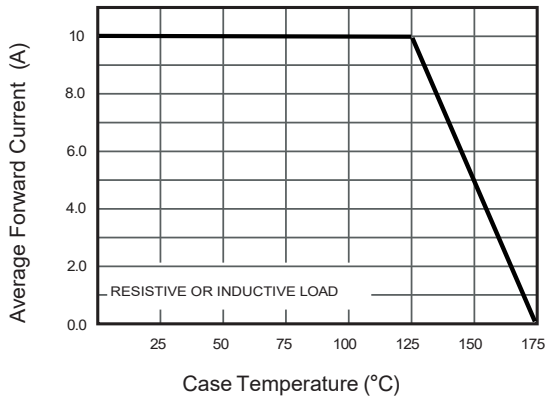


Fig.2 Typical Reverse Characteristics

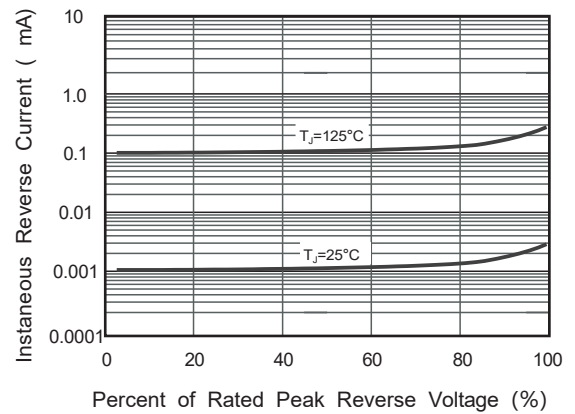


Fig.3 Typical Forward Characteristic

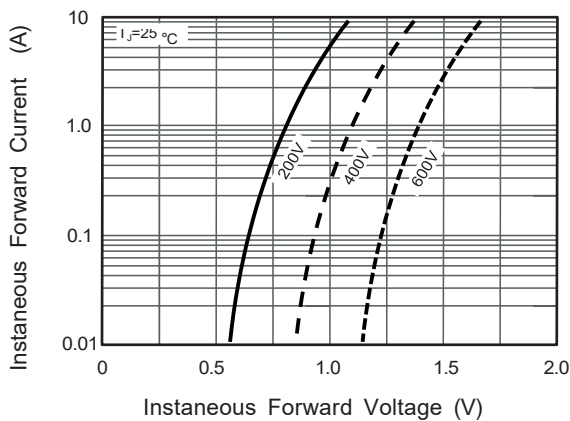
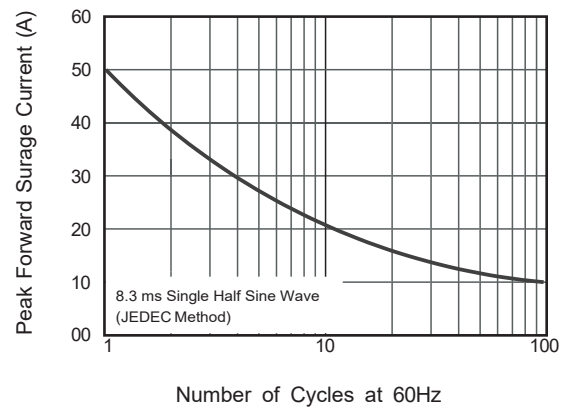


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.