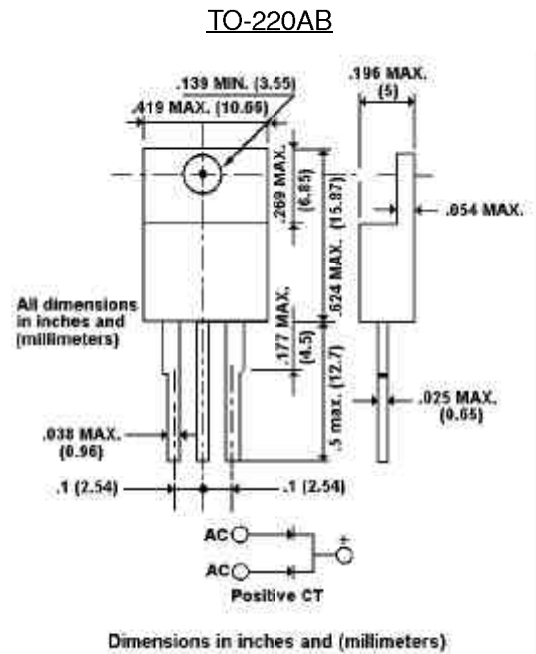


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Utilizing Flame Retardant Epoxy Molding Compound Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Ultra Fast recovery times, high voltage

MECHANICAL DATA

- Case: TO-220AB molded plastic
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08 ounce, 2.24 grams



MAXIMUM RATINGS AND ELECTRICAL

CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

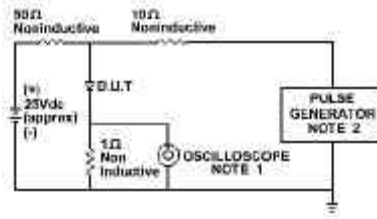
For capacitive load, derate current by 20%

| TYPE NUMBER | UF1600 | UF1601 | UF1602 | UF1603 | UF1604 | UF1606 | UF1608 | UNITS |
|--|-------------|--------|--------|-------------|--------|--------|--------|--------------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 300 | 400 | 600 | 800 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 210 | 280 | 420 | 560 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 300 | 400 | 600 | 800 | V |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ T _C =100 °C | 16 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JECEC method) | 125 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 8.0A | 1.0 | | 1.3 | | 1.7 | | V | |
| Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C | | | | 10.0 500 | | | | µg A µg A |
| Maximum Reverse Recovery Time (Note 1) | | | | | | 100 | | ns |
| Typical Junction capacitance (Note 2) | | | | | | 130 | | pF |
| Typical Junction Resistance (Note 2) R _{θJC} | 30 | | | | | | | °C/W |
| Operating and Storage Temperature Range T _J , T _{STG} | -50 to +150 | | | | | | | °C |

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_s=0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. mounted

RATING AND CHARACTERISTIC CURVES
UF1600 THRU UF1608



NOTE: 1. Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2. Rise Time = 10ns max.
Source Impedance = 50 Ohms

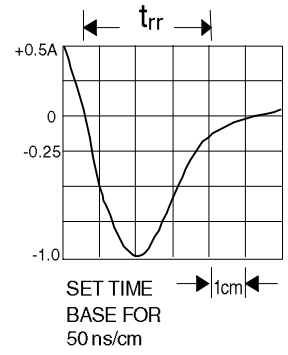


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

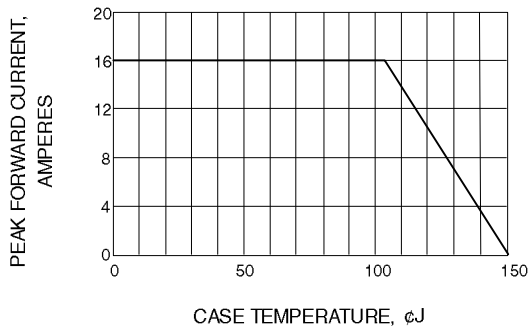


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE

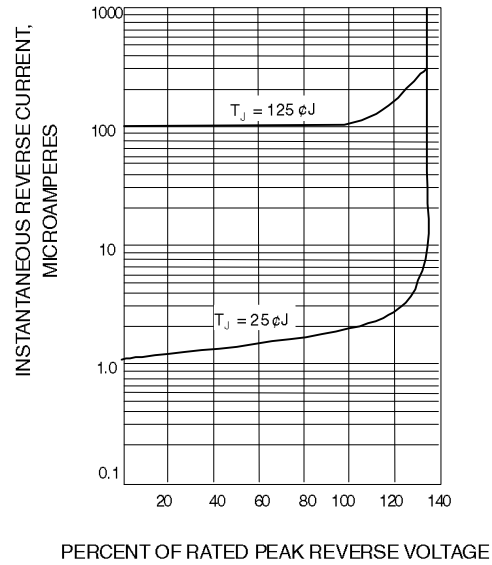


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

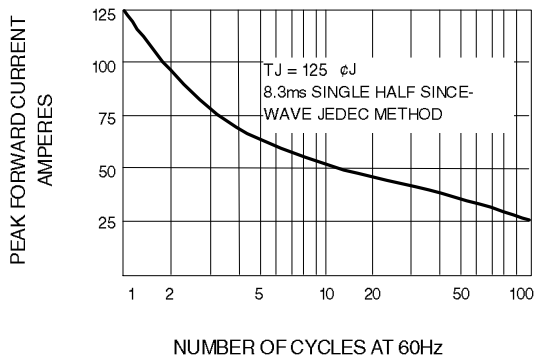


Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

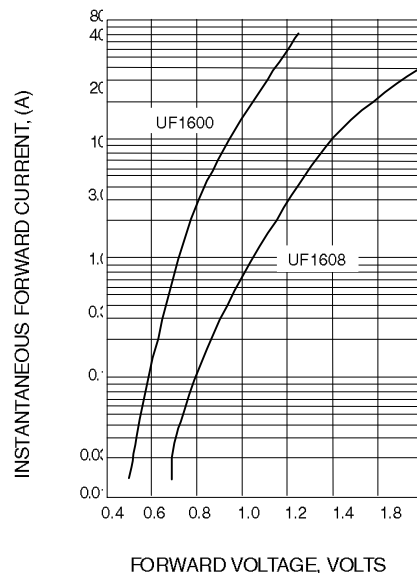


Fig. 5-TYPICAL FORWARD CHARACTERISTICS

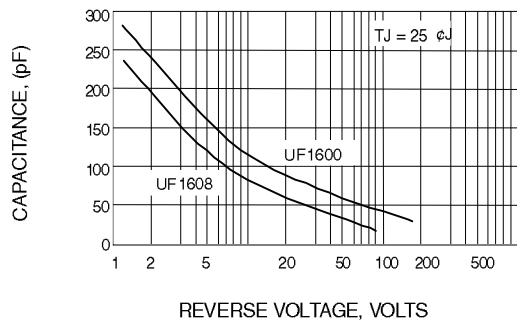


Fig. 4-TYPICAL JUNCTION CAPACITANCE