



UF300 THRU UF3010

ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

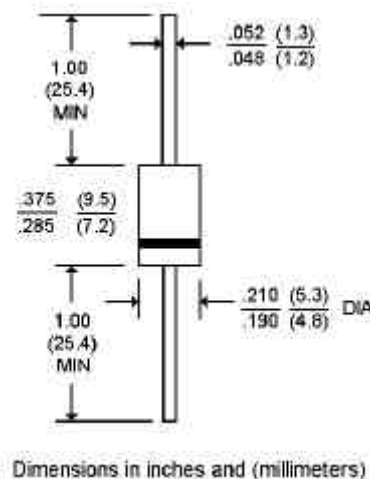
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in DO-201AD package
- 3.0 ampere operation at $T_A=55 \text{ }^\circ\text{C}$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Ultra fast switching for high efficiency

MECHANICAL DATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.04 ounce, 1.1 gram

DO-201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^\circ\text{C}$ ambient temperature unless otherwise specified.

Resistive or inductive load, 60 Hz

	UF300	UF301	UF302	UF304	UF306	UF308	UF3010	UNITS
Peak Reverse Voltage, Repetitive ; V_{RM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Blocking Voltage; V_R	50	100	200	400	600	800	1000	V
Average Forward Current, I_o @ $T_A=55 \text{ }^\circ\text{C}$ 3.8" lead length, 60Hz, resistive or inductive load	3.0							A
Peak Forward Surge Current I_{FM} (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Forward Voltage V_F @3.0A, 25 $^\circ\text{C}$ J	1.00		1.10		1.70			V
Maximum Reverse Current, @ Rated $T_J=25 \text{ }^\circ\text{C}$ J	10.0							μgA
Reverse Voltage $T_J=100 \text{ }^\circ\text{C}$ J	500							μgA
Typical Junction capacitance (Note 1) C_J	75.0				50.0			μF
Typical Junction Resistance (Note 2) $R_{\theta\text{JKJA}}$	20.0							$^\circ\text{C/W}$
Reverse Recovery Time $I_F=.5A, I_R=1A, I_{rr}=.25A$	50	50	50	50	75	75	75	ns
Operating and Storage Temperature Range	-55 TO +150							$^\circ\text{C}$

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

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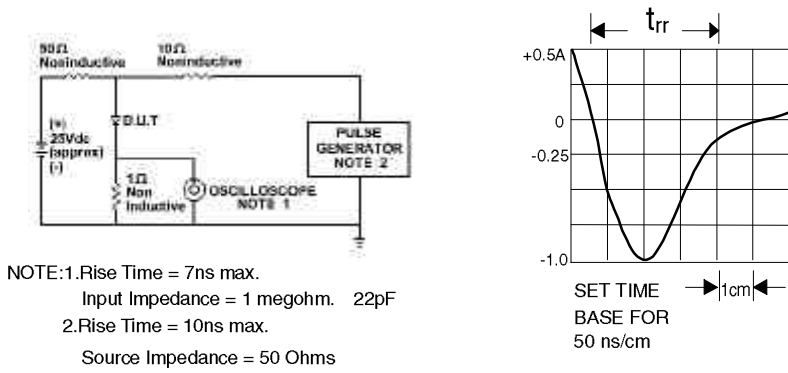


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

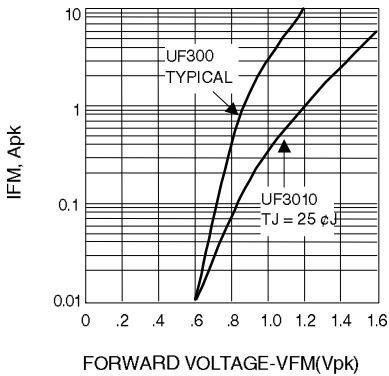


Fig. 2-FORWARD CHARACTERISTICS

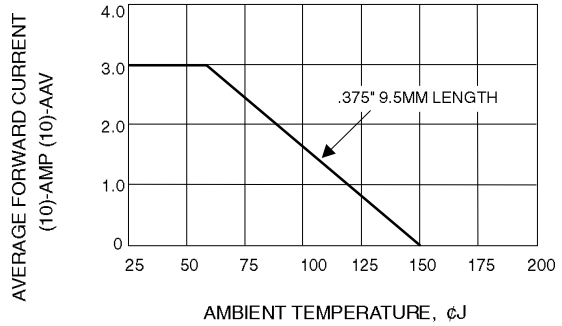


Fig. 3-FORWARD CURRENT DERATING CURVE

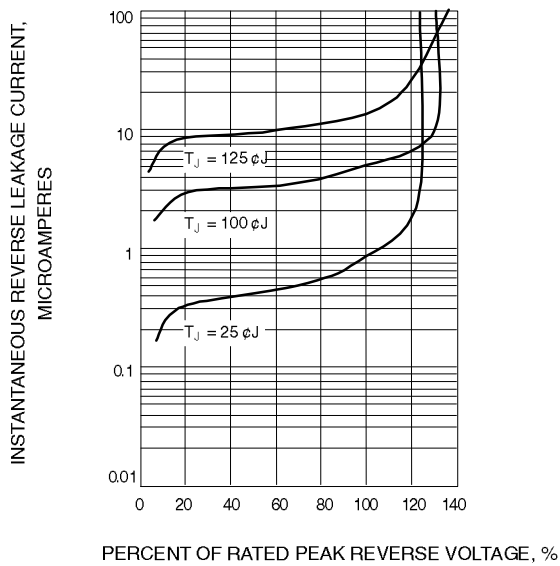


Fig. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

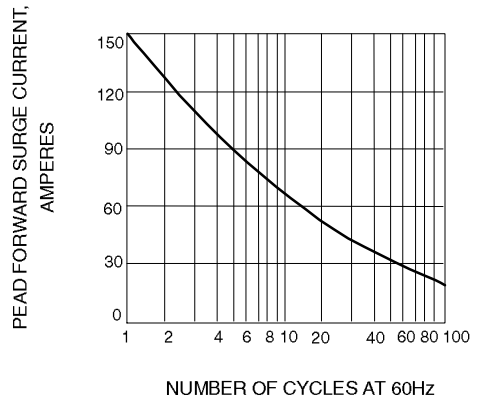


Fig. 5-PEAK FORWARD SURGE CURRENT