

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 $T_A=55^{\circ}\text{C}$ 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

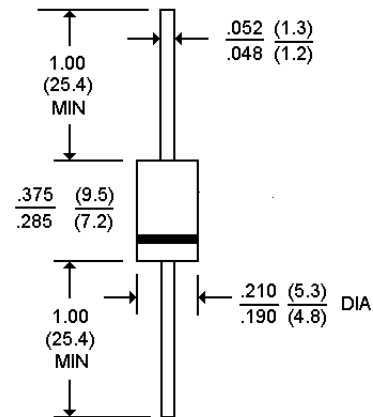
Terminals: Axial leads, solderable per MIL-STD-202,
Method 208

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.04 ounce, 1.1 gram

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60 Hz

	UF300	UF301	UF302	UF304	UF306	UF308	UF3010	UNITS
Peak Reverse Voltage, Pepetitive ; V_{RM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Blocking Voltage; VR	50	100	200	400	600	800	1000	V
Average Forward Current, Io @TA=55 ºJ 3.8" lead length, 60Hz, resistive or inductive load	3.0							A
Peak Forward Surge Current IFM (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Forward Voltage VF @3.0A, 25 ºJ	1.00			1.10	1.70			V
Maximum Reverse Current, @ Rated TJ=25 ºJ	10.0							g A
Reverse Voltage TJ=100 ºJ	500							g A
Typical Junction capacitance (Note 1) CJ	75.0				50.0			pF
Typical Junction Resistance (Note 2) RKJA	20.0							J/W
Reverse Recovery Time IF=.5A, IR=1A, Irr=.25A	50	50	50	50	75	75	75	ns
Operating and Storage Temperature Range	-55 TO +150							J

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. 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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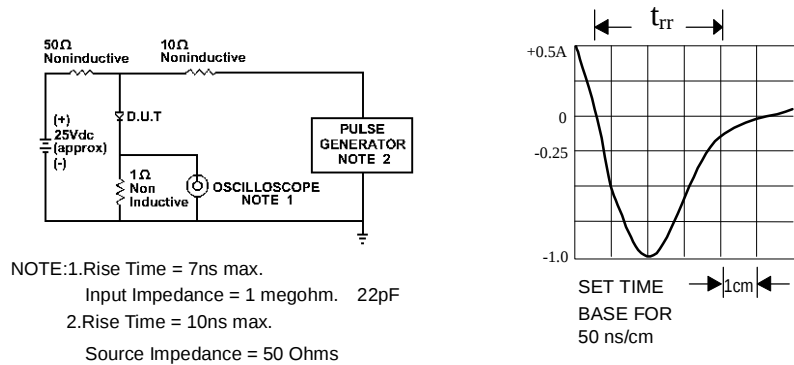


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

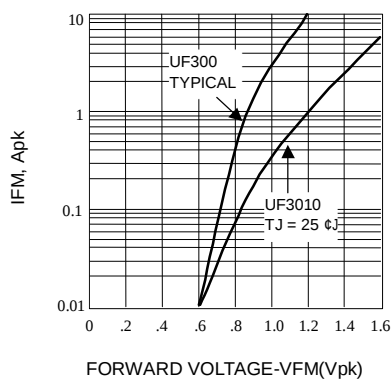


Fig. 2-FORWARD CHARACTERISTICS

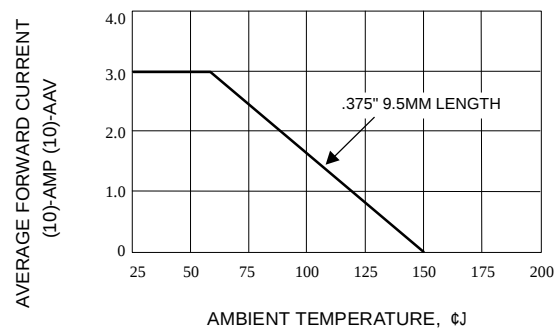


Fig. 3-FORWARD CURRENT DERATING CURVE

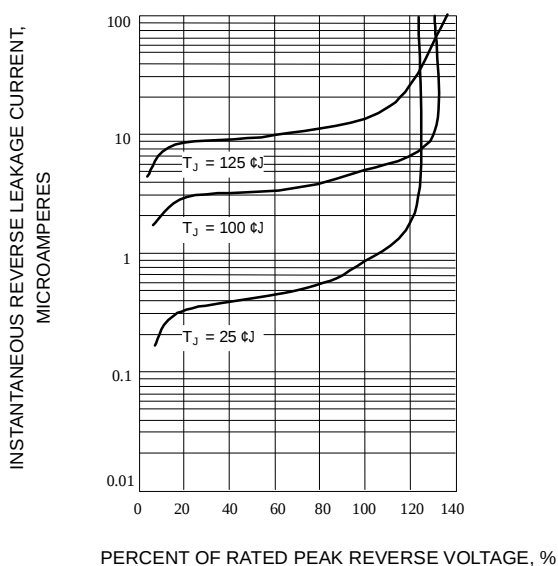


Fig. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

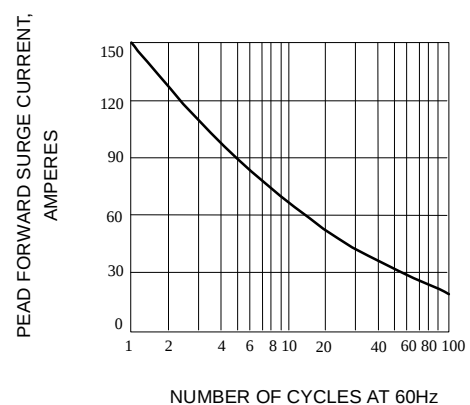


Fig. 5-PEAK FORWARD SURGE CURRENT