UF100 THRU UF1010

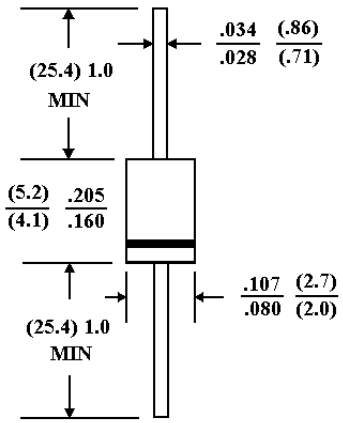
ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in DO-41 package
- 1.0 ampere operation at T_A=55 ¢J with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Ultra fast switching for high efficiency

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41
Terminals: Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Band denotes cathode
Mounting Position: Any
Weight: 0.013 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

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

	UF100	UF101	UF102	UF104	UF106	UF108	UF1010	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 @T_A=55 ¢J 3.8" lead length, 60Hz, resistive or inductive load	1.0							A
Peak Forward Surge Current I_{FM} (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	30.0							A
Maximum Forward Voltage V_F @1.0A, 25 ¢J	1.00			1.10	1.70			V
Maximum Reverse Current, @ Rated T_J=25 ¢J	10.0							£g A
Reverse Voltage T_J=100 ¢J	500							£g A
Typical Junction capacitance (Note 1) CJ	17.0							pF
Typical Junction Resistance (Note 2) R £KJA	60.0							¢J/W
Reverse Recovery Time I_F=.5A, I_R=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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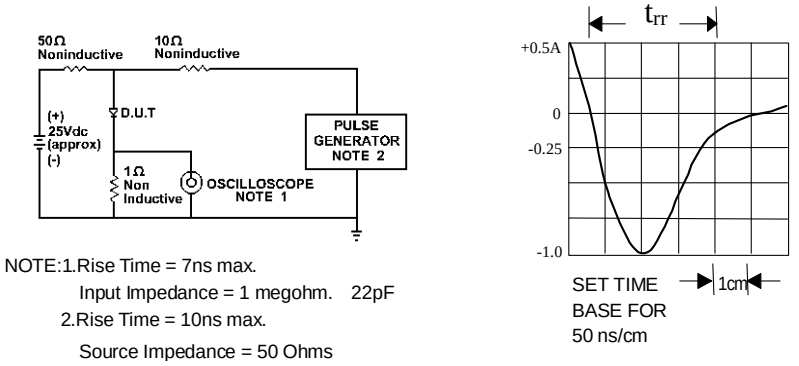

NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

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

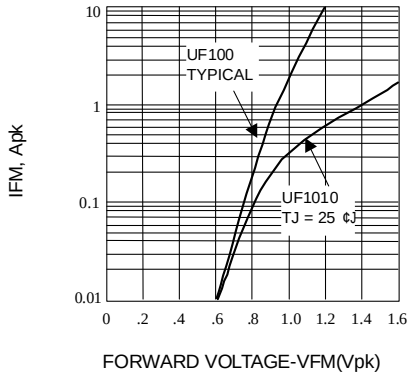

Fig. 2-FORWARD CHARACTERISTICS

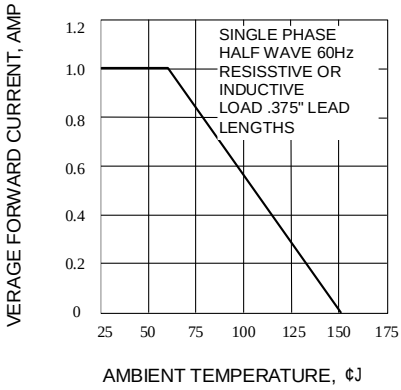

Fig. 3-FORWARD CURRENT DERATING CURVE

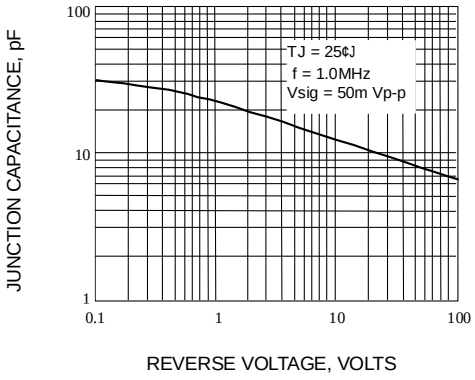

Fig. 4-TYPICAL JUNCTION CAPACITANCE

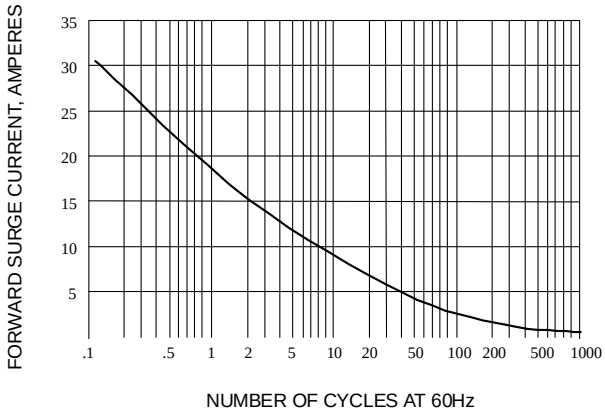

Fig. 5-PEAK FORWARD SURGE CURRENT