TRANSYS ELECTRONICS LIMITED

UF600 THRU UF608

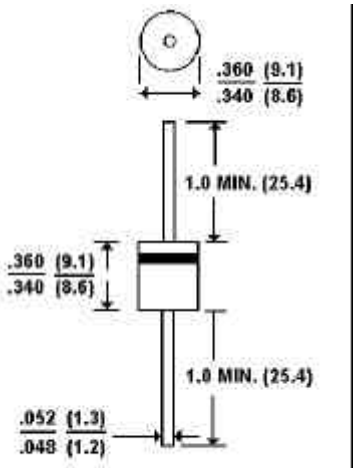
ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 6.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in P600 package
- 6.0 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

P600



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, P600

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

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.07 ounce, 2.1 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

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

	UF600	UF601	UF602	UF604	UF606	UF608	UNITS
Peak Reverse Voltage, Pepetitive ; V_{RM}	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
DC Blocking Voltage; VR	50	100	200	400	600	800	V
Average Forward Current, Io @T_A=55 ¢J3.8" lead length, 60Hz, resistive or inductive load	6.0						A
Peak Forward Surge Current I_{FM} (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	300						A
Maximum Forward Voltage V_F @6.0A, 25 ¢J	1.00			1.10	1.70		V
Maximum Reverse Current, @ Rated T_J=25 ¢J	10.0						£gA
Reverse Voltage T_J=100 ¢J	1000						£gA
Typical Junction capacitance (Note 1) CJ	300						pF
Typical Junction Resistance (Note 2) R£KJA	10.0						¢J/W
Reverse Recovery Time I_F=.5A, I_R=1A, Irr=.25A	50	50	50	50	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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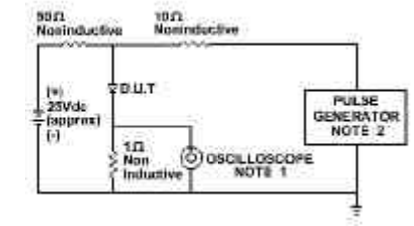

NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

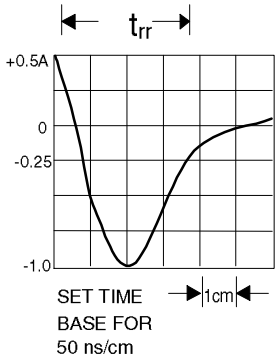

Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

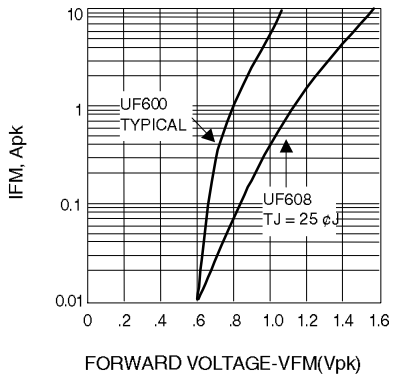

Fig. 2-FORWARD CHARACTERISTICS

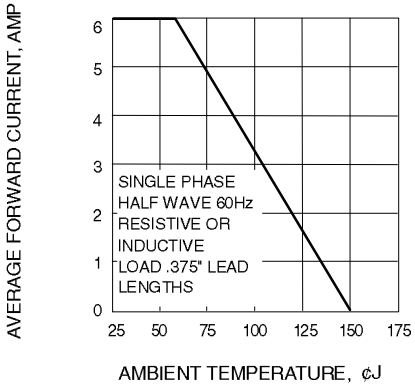

Fig. 3-FORWARD CURRENT DERATING CURVE

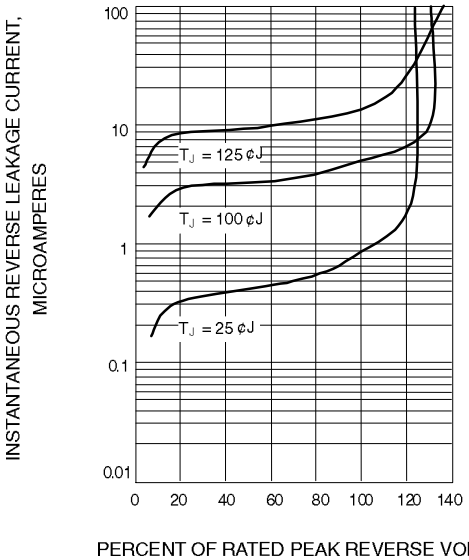

Fig. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

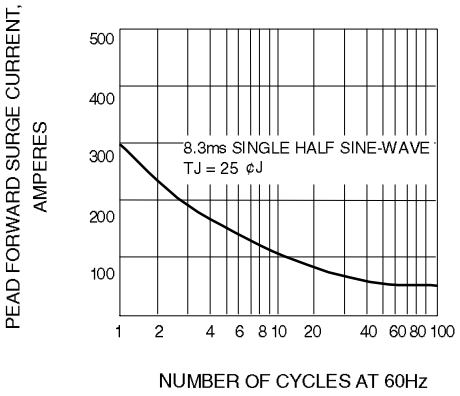

Fig. 5-PEAK FORWARD SURGE CURRENT