TRANSYS ELECTRONICS LIMITED

UF100G THRU UF108G

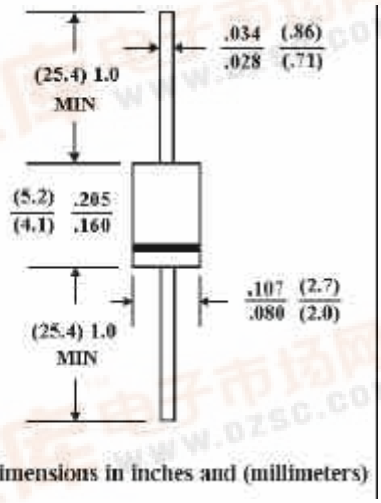
GLASS PASSIVATED JUNCTION ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammab ity Classification 94V-O Ut izing
- Flame Retardant Epoxy Molding Compound
- Glass passivated junction 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, 60Hz, resistive or inductive load.

	UF100G	UF101G	UF102G	UF104G	UF106G	UF108G	UNITS
Peak Reverse Voltage, Repetitive; V_{RM}:	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
DC Reverse Voltage; V_R	50	100	200	400	600	800	V
Average Forward Current, Io @ T_A=55 ¢J 3/8" lead length, 60 Hz, resistive or inductive load	1.0						A
Peak Forward Surge Current, I_{FM} (surge) 8.3msec. single half sine wave superimposed on rated load(JECEC method)	30						A
Maximum Forward Voltage VF @ 1.0A, 25 ¢J	1.00			1.30	1.70		V
Maximum Reverse Current, @ Rated T_J=25 ¢J	10.0						£gA
Reverse Voltage T_J=100 ¢J	150						£gA
Typical Junction capacitance (Note 1) CJ	17						pF
Typical Junction Resistance (Note 2) R £KJA	60						¢J/W
Reverse Recovery Time I_F=.5A, I_R=1A, I_{rr}=.25A	50	50	50	50	100	100	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 at 0.375"(9.5mm) P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

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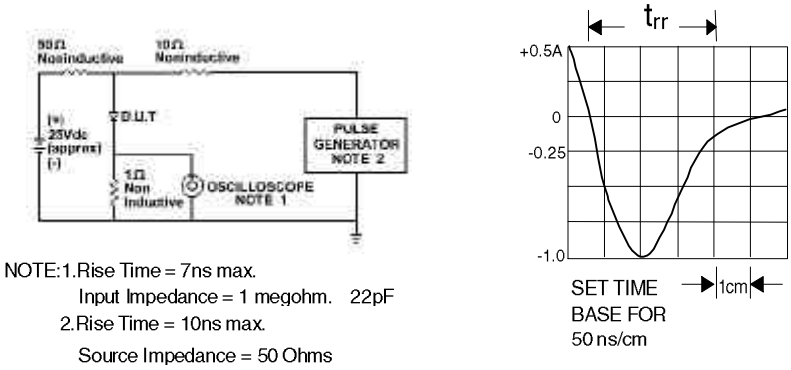

NOTE: 1. Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2. Rise Time = 10ns max.
Source Impedance = 50 Ohms

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

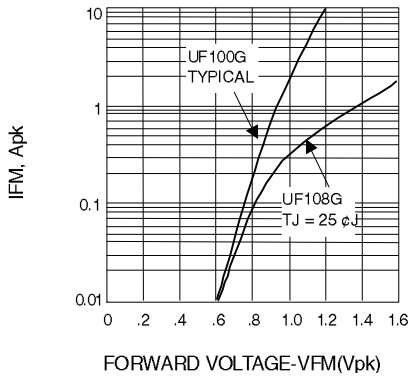

Fig. 2-FORWARD CHARACTERISTICS

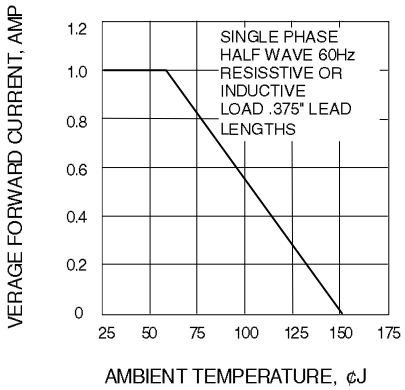

Fig. 3-FORWARD CURRENT DERATING CURVE

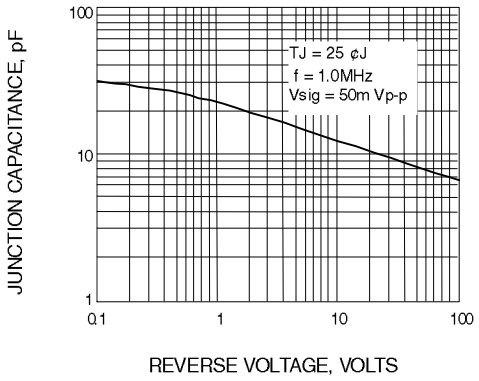

Fig. 4-TYPICAL JUNCTION CAPACITANCE

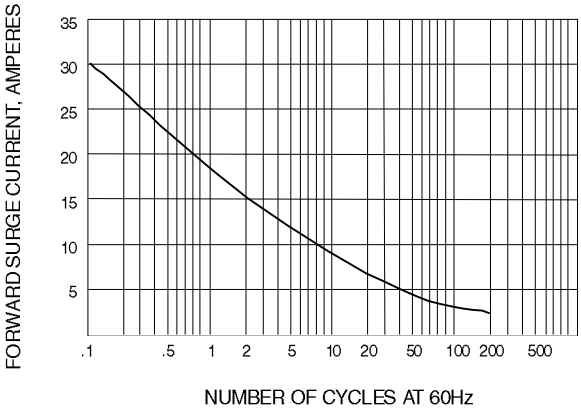

Fig. 5-PEAK FORWARD SURGE CURRENT