



DATA SHEET

SEMICONDUCTOR

UF100G~UF1010G

ULTRAFAST SWITCHING RECTIFIER

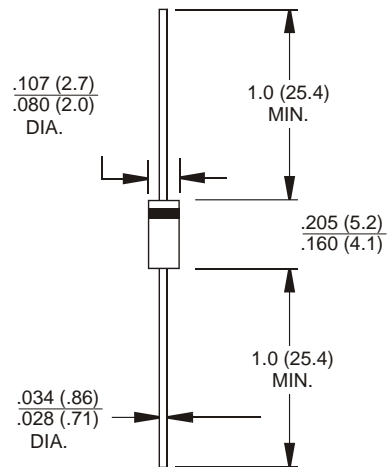
VOLTAGE - 50 to 1000 Volts CURRENT - 1.0 Ampere



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 TA=55 °C with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Ultra fast switching for high efficiency
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

DO-41 Unit:inch(mm)



MECHANICAL DATA

- Case: Molded plastic, DO -41 GLASS PASSIVATION
- 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°C ambient temperature unless otherwise specified.

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

	UF100G	UF101G	UF102G	UF104G	UF106G	UF108G	UF1010G	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; VR	50	100	200	400	600	800	1000	V
Average Forward Current, I_o @TA=55°C 3.8" lead length, 60Hz, resistive or inductive load	1.0							A
Peak Forward Surge Current IFM (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	30.0							A
Maximum Forward Voltage V_F @1.0A, 25°C	1.00		1.30	1.50	1.70			V
Maximum Reverse Current, @ Rated $T_J=25^\circ C$	5							μA
Reverse Voltage $T_J=100^\circ C$	100							μA
Typical Junction capacitance (Note 1) CJ	17.0							pF
Typical Junction Resistance (Note 2) $R_{\theta JA}$	60.0							°C/W
Reverse Recovery Time $I_F=.5A, I_R=1A, I_{rr}=.25A$	50				75			ns
Operating and Storage Temperature Range	-55 to +150							°C

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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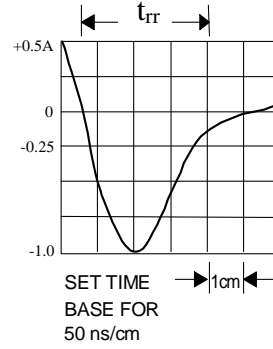
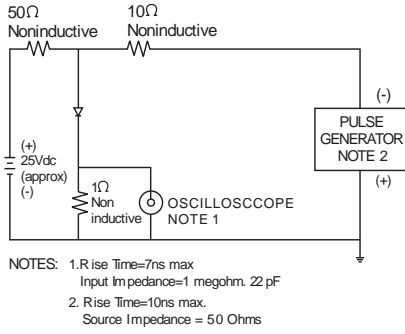


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

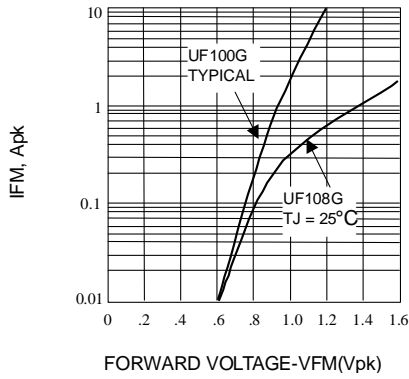


Fig. 2-FORWARD CHARACTERISTICS

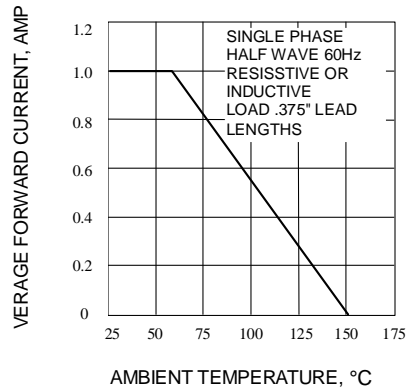


Fig. 3-FORWARD CURRENT DERATING CURVE

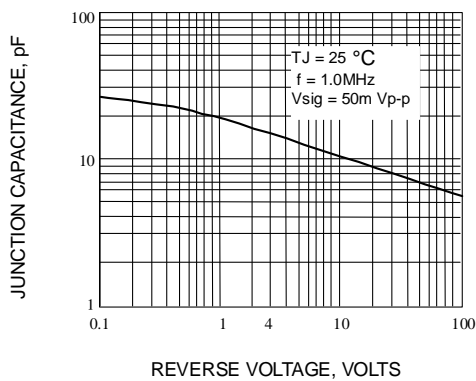


Fig. 4-TYPICAL JUNCTION CAPACITANCE

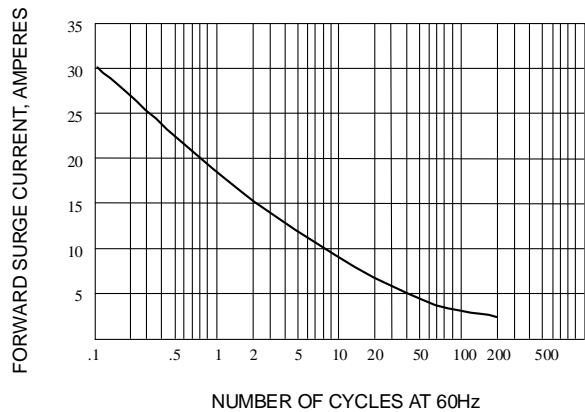


Fig. 5-PEAK FORWARD SURGE CURRENT