



SEMICONDUCTOR

DATA SHEET

UF200~UF2010

ULTRAFAST SWITCHING RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in DO-15 package
- 2.0 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
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

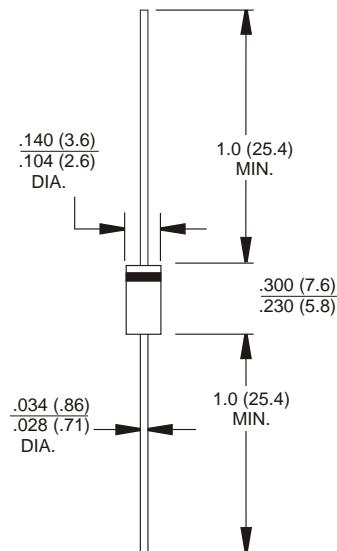
- Case: Glass passivation, DO-15
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.015 ounce, 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C J ambient temperature unless otherwise specified.

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

DO-15 Unit:inch(mm)



	UF200	UF201	UF202	UF204	UF206	UF208	UF2010	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 @ $T_A=55^\circ\text{C}$ 3. 8" lead length, 60Hz, resistive or inductive load	2.0							A
Peak Forward Surge Current IFM (surge) 8.3msec. single half sine- wave superimposed on rated load(JEDEC method)	60							A
Maximum Forward Voltage V_F @2.0A, 25°C	1.00		1.3	1.5	1.7			V
Maximum Reverse Current, @ Rated $T_A=25^\circ\text{C}$	5							μA
Reverse Voltage $T_A=100^\circ\text{C}$	100							μA
Typical Junction capacitance (Note 1) CJ	35							pF
Typical Junction Resistance (Note 2) R JA	45							$^\circ\text{C}/\text{W}$
Reverse Recovery Time $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$	50				75			ns
Operating and Storage Temperature Range	-55 to +150							$^\circ\text{C}$

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

UF200~UF2010

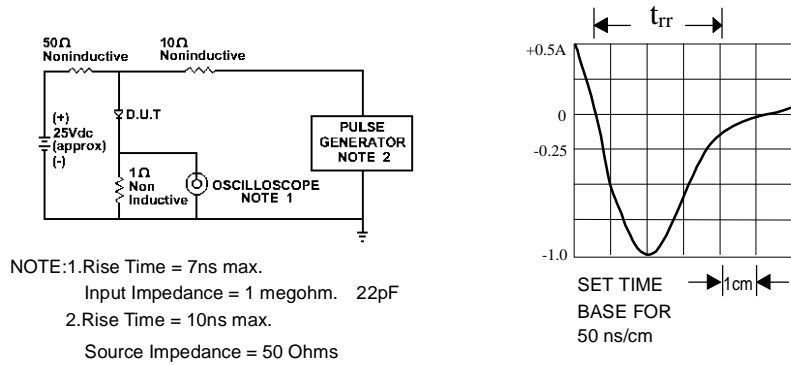


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

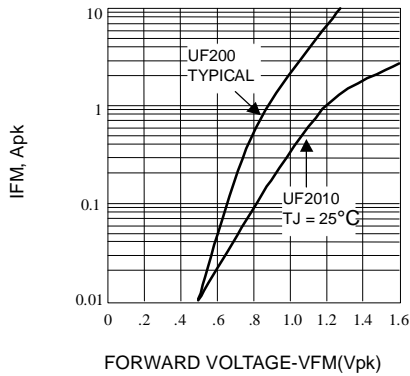


Fig. 2-FORWARD CHARACTERISTICS

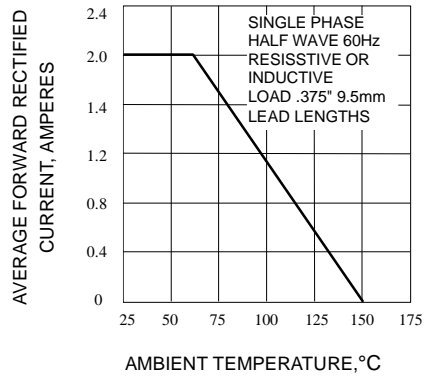


Fig. 3-FORWARD CURRENT DERATING CURVE

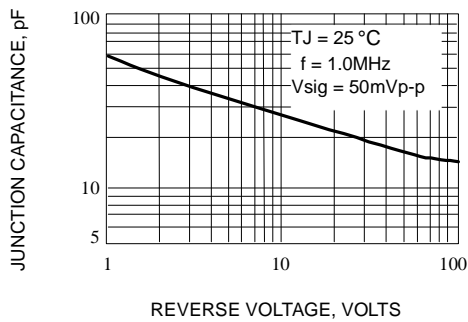


Fig. 4-TYPICAL JUNCTION CAPACITANCE

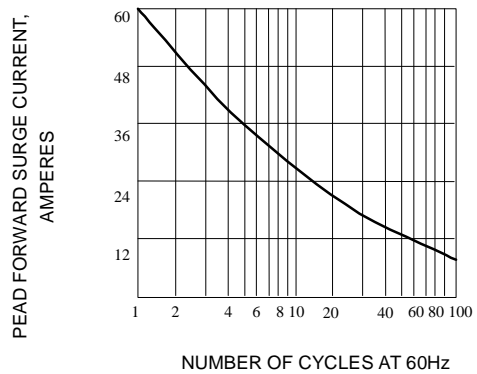


Fig. 5-PEAK FORWARD SURGE CURRENT