

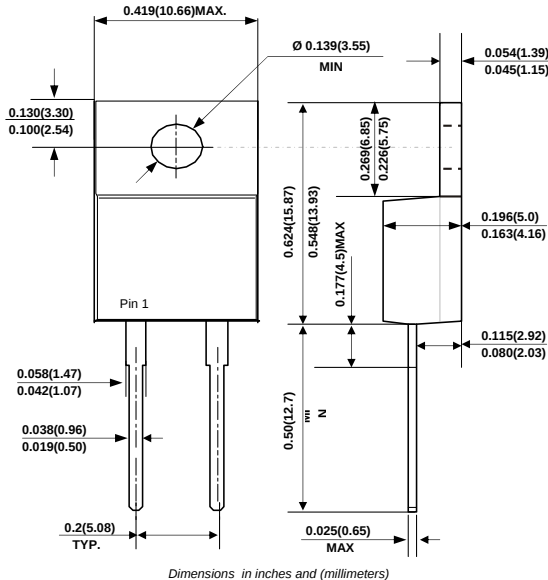


UF1000T THRU UF1008T

HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 800 Volts Forward Current - 10.0 Ampere

TO-220AC



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- ◆ Exceeds environmental of MIL-S-19500/228
- ◆ Low power loss, high efficiency.
- ◆ Low forward voltage, high current capability.
- ◆ High surge capability.
- ◆ Ultra fast recovery times, high voltage.
- ◆ In compliance with EU RoHS 2002/95/EC directives.

MECHANICAL DATA

Case: TO-220AC, Molded plastic.

Terminals: Solderable per MIL-STD-750 · Method 2026

Weight: 1.859 gram (0.0655 ounces).

Standard Packaging : Tube.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	UF1000T	UF1001T	UF1002T	UF1003T	UF1004T	UF1006T	UF1008T	UNITS
Maximum Recurrentent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	Volts
Maximum DC Breakdown Voltage	V _{DC}	50	100	200	300	400	600	800	Volts
Maximum Average Forward Current at TC =100℃	I _{F(AV)}	10.0							Amp
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated olad(JEDEC methode)	I _{FSM}	125							Amps
Maximum Forward Voltage at If=10.0A	V _F	1.10			1.30		1.50		Volts
Maximum DC Reverse Current Rated DC Blocking Voltage at T _J = 25℃ T _J =100℃	I _R	10.0 100							μ A
Maximum Reverse Recovery Time (NOTE 2)	t _{rr}	50					100		nS
Typical Junction Capacitance (NOTE 1)	C _J	80					50		pF
Typical Thermal Resistance (NOTE 3)	R _{θJC}	2.0							℃/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							℃

- Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1A$, $I_{rr} = 0.25A$.
 3. Thermal resistance from Junction to case.
 4. Both Bonding and Chip structure are available.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

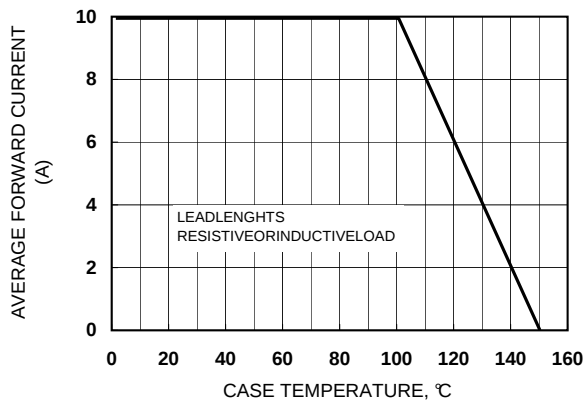


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

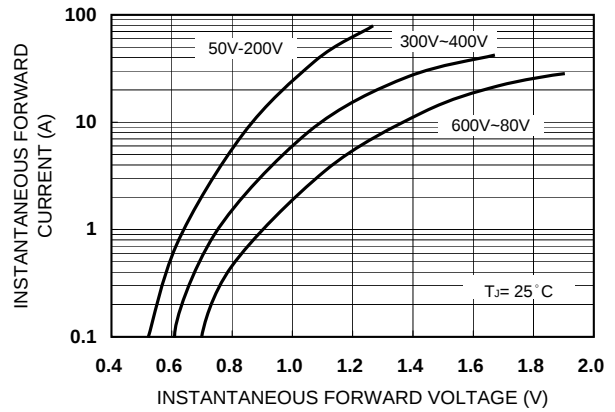


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

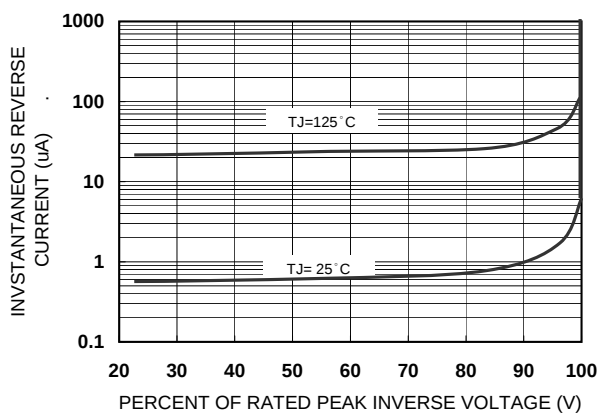


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

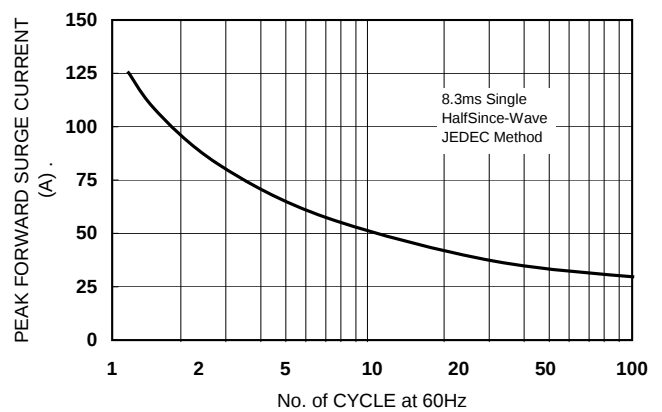


FIG. 5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

