

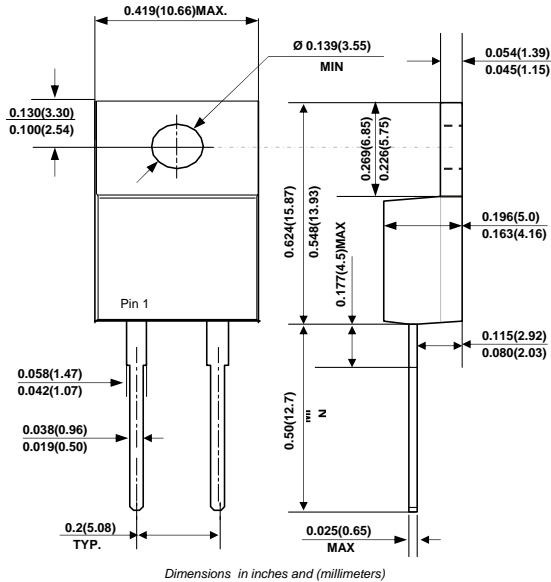


# UF800T THRU UF810T

## HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current 8.0 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	UF800T	UF801T	UF802T	UF804T	UF809T	UF810T	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	900	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	630	700	Volts
Maximum DC Breakdown Voltage	$V_{DC}$	50	100	200	400	900	1000	Volts
Maximum Average Forward Current at $T_C = 100^\circ C$	$I_{F(AV)}$	8.0						Amp
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load (JEDEC method)	$I_{FSM}$	125						Amps
Maximum Forward Voltage at 8A at $I_F = 8.0A$	$V_F$	1.00		1.30		1.85	1.95	Volts
Maximum DC Reverse Current Rated DC Blocking Voltage at $T_J = 25^\circ C$ $T_J = 100^\circ C$	$I_R$	10.0				100		$\mu A$
Maximum Reverse Recovery Time (NOTE 2)	$t_{rr}$	35				50		nS
Typical Junction Capacitance (NOTE 1)	$C_J$	80				48		pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JC}$	5.0						$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150						$^\circ C$

- 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

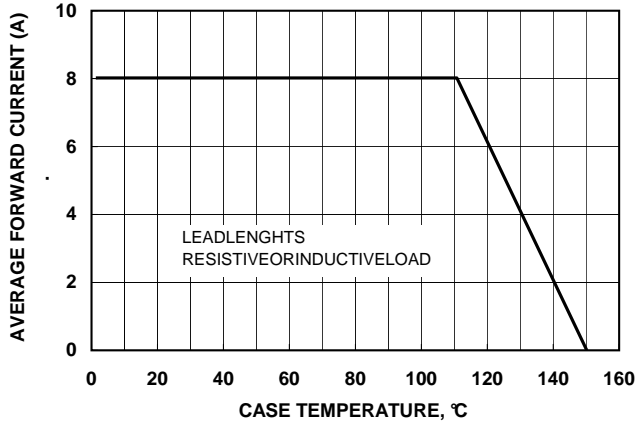


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

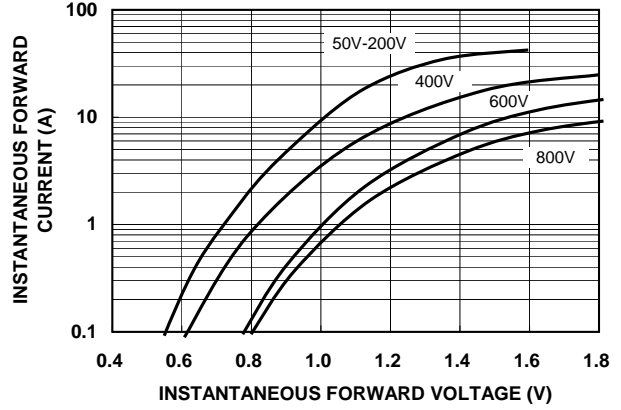


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

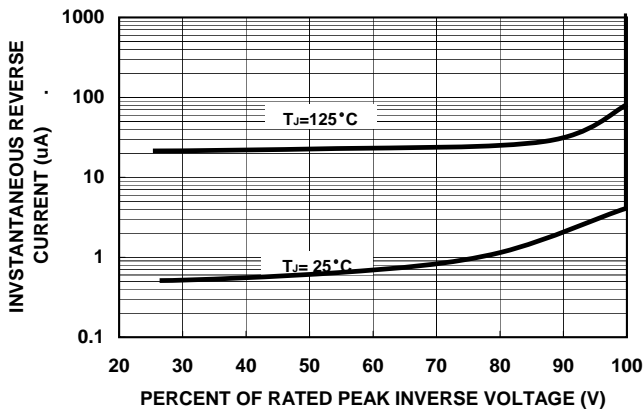


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

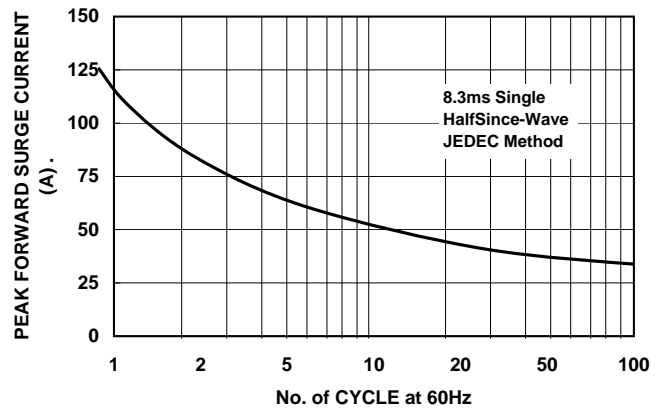


FIG. 5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

