



DATA SHEET

SEMICONDUCTOR

UF1000CT~UF1008CT

ULTRAFAST SWITCHING RECTIFIERS

VOLTAGE- 50 to 800 Volts CURRENT - 10.0 Ampere



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Ultra fast recovery times, high voltage.
- 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: TO-220AB full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.08 ounces, 2.24grams.

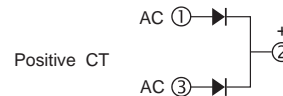
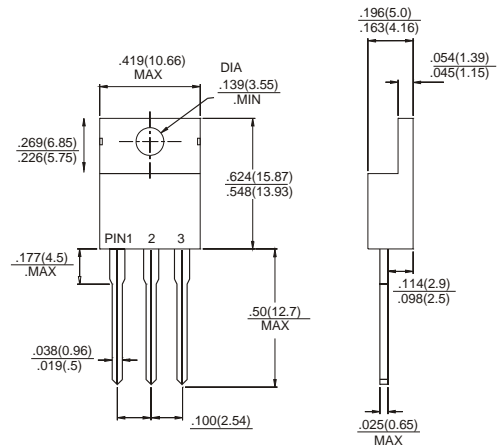
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

TO-220AB Unit:inch(mm)



	UF1000CT	UF1001CT	UF1002CT	UF1003CT	UF1004CT	UF1006CT	UF1008CT	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	V
Maximum RMS Voltage	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current at Tc=100°C	10							A
Peak Forward Surge Current , 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 5.0A per element	1.0		1.30		1.70			V
Maximum DC Reverse Current (Note 1) Ta=25° C at Rated DC Blocking Voltage Ta=125°C	10			500				µA
Maximum DC Reverse Current (Note 1) Ta=25°C at Rated DC Blocking Voltage Ta=125°C	50			100				pF
Maximum Reverse Recovery Time (Note 2)	50			75				ns
Typical Thermal Resistance Note RθJC	15							°C/W
Operating and Storage Temperature Range TJ	-55 to +150							°C

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Reverse Recovery Test Conditions: IF=.5A, IR=1A, Irr=.25A.
- Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.

RATING AND CHARACTERISTIC CURVES

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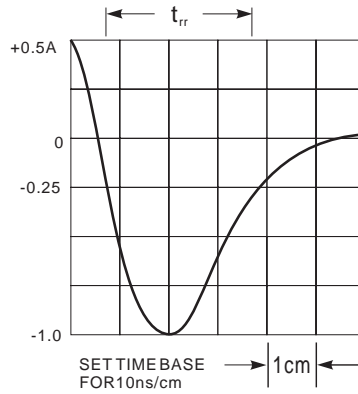
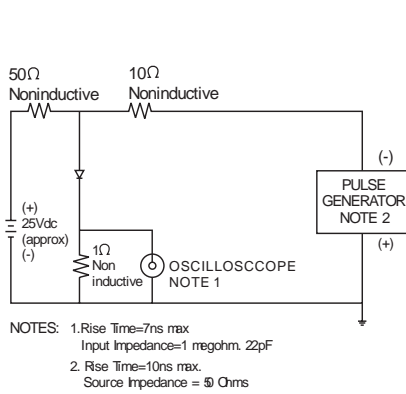


Fig.1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

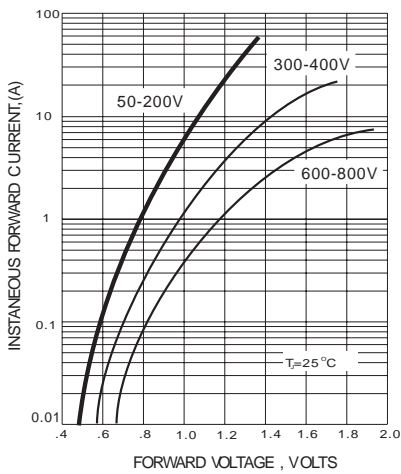


Fig.2- FORWARD CHARACTERISTICS

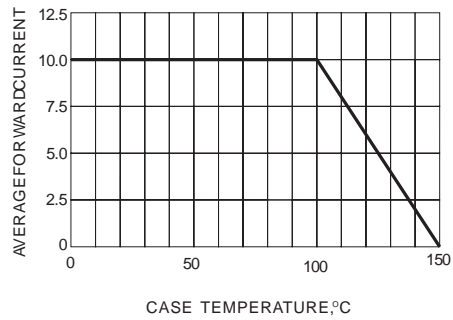


Fig.3-FORWARD CURRENT DERATING CURVE

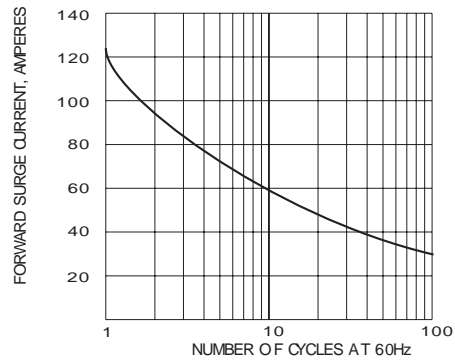


Fig.4-PEAK FORWARD SURGE CURRENT

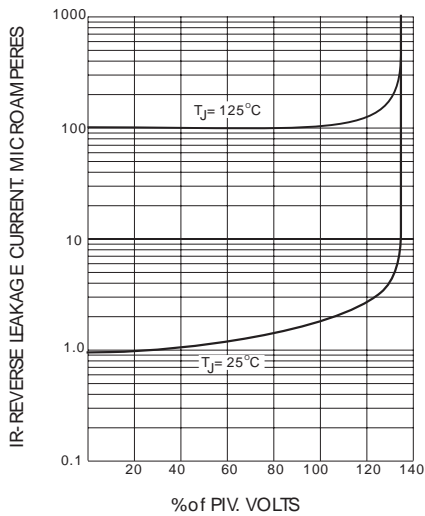


Fig.5- TYPICAL REVERSE CHARACTERISTICS

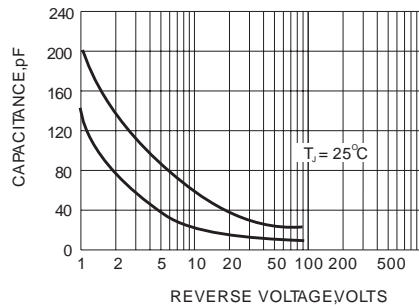


Fig.6-TYPICAL JUNCTION CAPACITANCE