



DATA SHEET

SEMICONDUCTOR

UF800~UF8010

ULTRAFAST SWITCHING RECTIFIERS

VOLTAGE- 50 to 1000 Volts CURRENT - 8.0 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-220AC 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

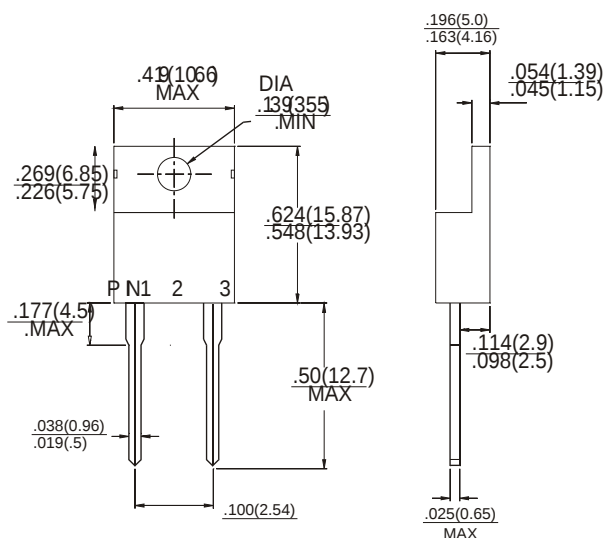
Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

TO-220 AC

Unit : inch (mm)



① ———— ③

	UF800	UF80	UF802	UF803	UF804	UF806	UF808	UF8010	UNIT S
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc=100°C	8.0								A
Peak Forward Surge Current, 8.3 ms single half sine -wave superimposed on rated load (JEDEC method)	13								A
Maximum Instantaneous Forward Voltage at 8.0 A per element	1.0				1.0	1.50	1.0		V
Maximum DC Reverse Current (Note 1) Ta=25°C at Rated DC Blocking Voltage Ta=125°C	10 500								A
Typical Junction Capacitance (Note 1)	80					50			pF
Maximum Reverse Recovery Time (Note 2)	50					3			ns
Typical Thermal Resistance Note RθJC	15								°C/W
Operating and Storage Temperature Range Tj	-55 to 50								°C

NOTES:

1. Maximum Applied reverse voltage of 50 V.D.

2 Reverse Recovery Test Condition: F=5A, I_R=1A, Irr=3A.

3 Thermal resistance from junction to ambient from junction to lead 0.375mm)C. Noted

RATING AND CHARACTERISTIC CURVES

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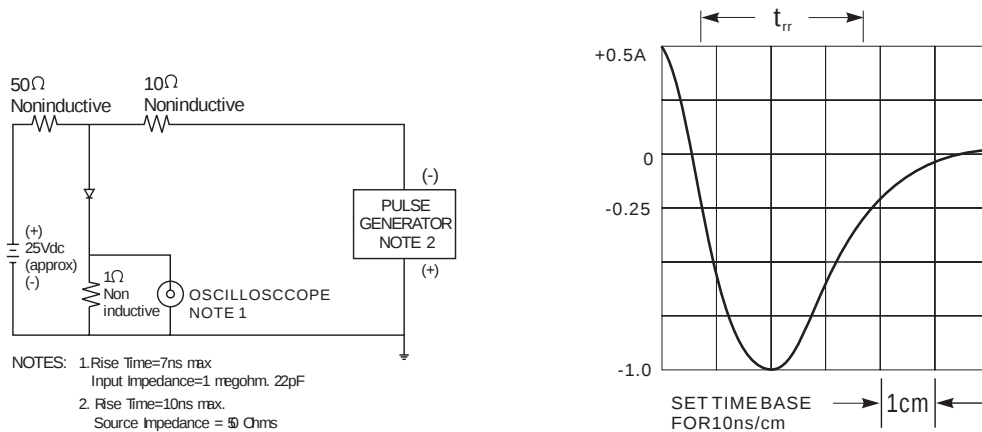


Fig.1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

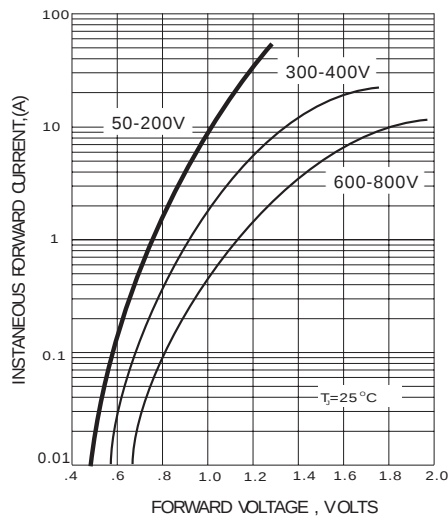


Fig.2- FORWARD CHARACTERISTICS

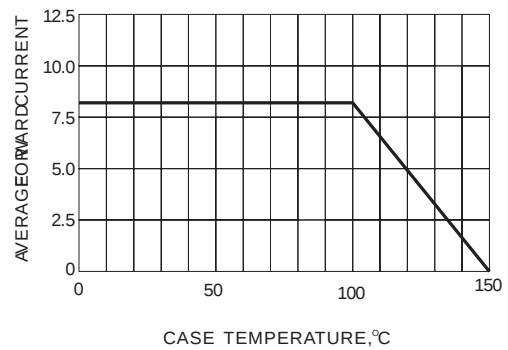


Fig.3-FORWARD CURRENT DERATING CURVE

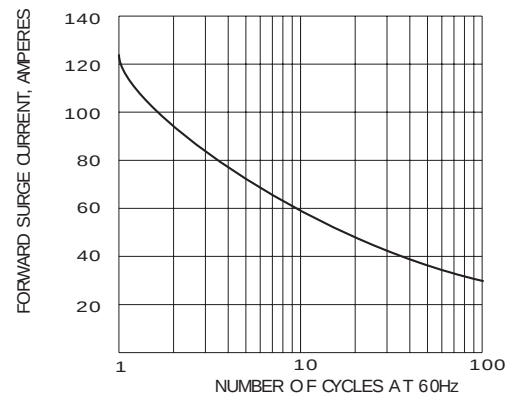


Fig.4-PEAK FORWARD SURGE CURRENT

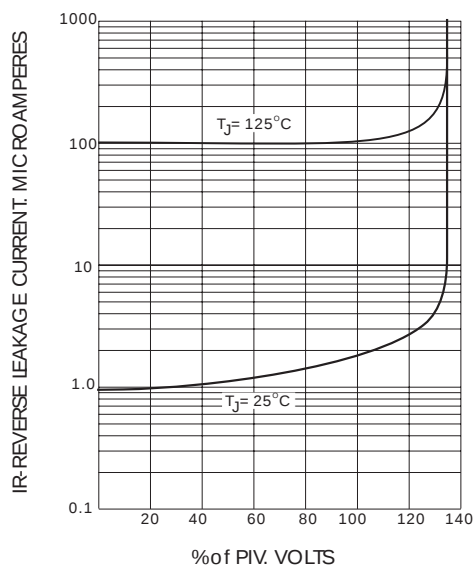


Fig.5- TYPICAL REVERSE CHARACTERISTICS

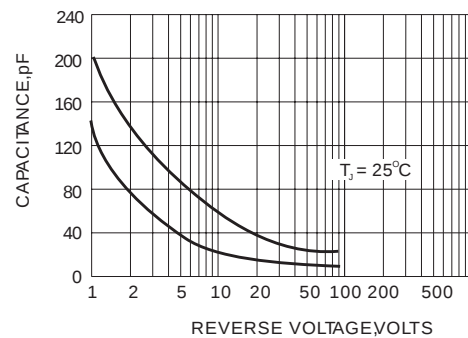


Fig.6-TYPICAL JUNCTION CAPACITANCE