

UF1000FCT~UF1006FCT

ULTRAFAST RECOVERY RECTIFIERS

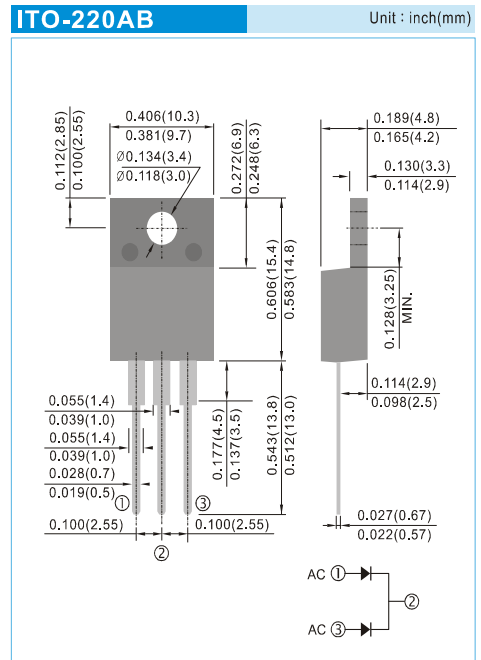
VOLTAGE 50 to 600 Volt **CURRENT** 10 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Ultra fast recovery time, high voltage.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: ITO-220AB full molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.056 ounces, 1.6 grams



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%

PARAMETER	SYMBOL	UF1000FCT	UF1001FCT	UF1002FCT	UF1003FCT	UF1004FCT	UF1006FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	V
Maximum Average Forward Current	$I_{F(AV)}$	10						A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125						A
Maximum Forward Voltage at 5A	V_F	1		1.3		1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R	1 500						μA
Typical Junction Capacitance (Note 1)	C_J	60					40	pF
Maximum Reverse Recovery Time (Note 2)	t_{rr}	50					100	ns
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2						$^{\circ}C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150						$^{\circ}C$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
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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RATING AND CHARACTERISTIC CURVES

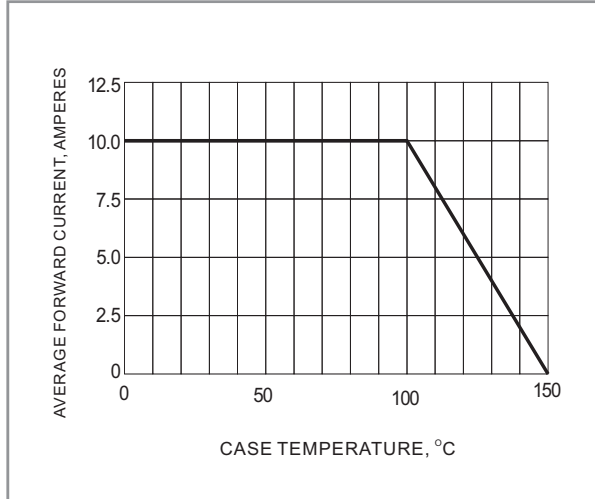


Fig. 1 FORWARD CURRENT DERATING CURVE

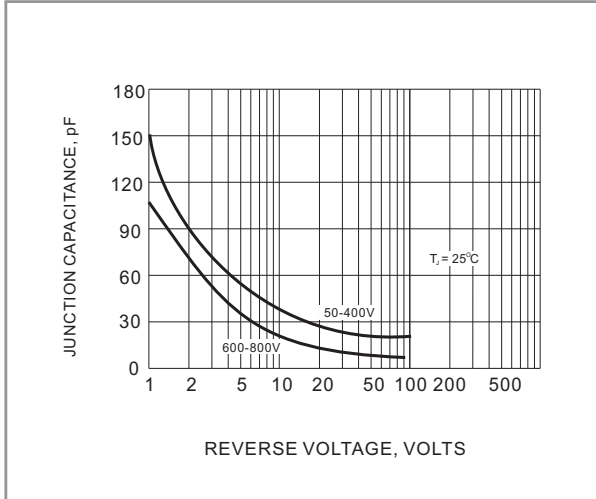


Fig. 2 TYPICAL JUNCTION CAPACITANCES

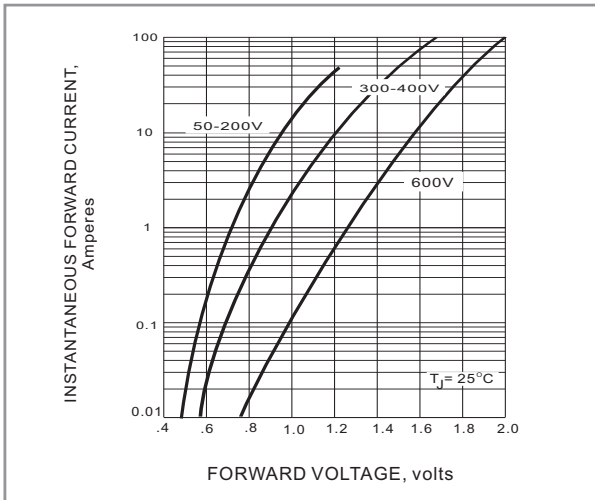


Fig. 3 FORWARD CHARACTERISTICS

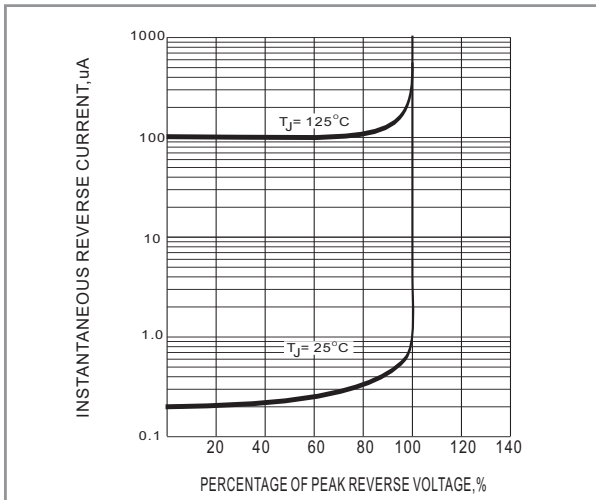


Fig. 4 TYPICAL REVERSE CHARACTERISTICS

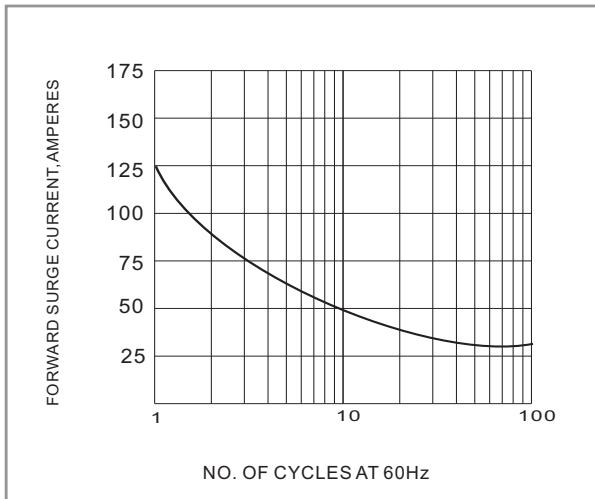


Fig. 5 PEAK FORWARD SURGE CURRENT

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
UF1000FCT	ITO-220AB	50pcs / Tube	UF1000FCT
UF1001FCT	ITO-220AB	50pcs / Tube	UF1001FCT
UF1002FCT	ITO-220AB	50pcs / Tube	UF1002FCT
UF1003FCT	ITO-220AB	50pcs / Tube	UF1003FCT
UF1004FCT	ITO-220AB	50pcs / Tube	UF1004FCT
UF1006FCT	ITO-220AB	50pcs / Tube	UF1006FCT

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