



# UF1000FCT~UF1006FCT

## ULTRAFAST RECOVERY RECTIFIERS

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

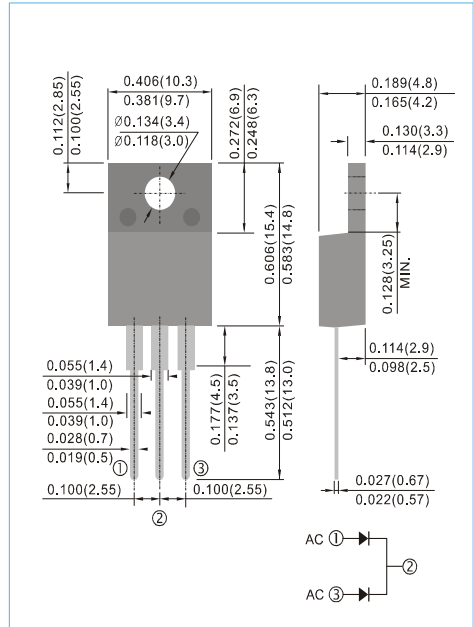
### FEATURES

- 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

**ITO-220AB** Unit : inch(mm)



### 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						$\mu A$
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						$^{\circ}C$

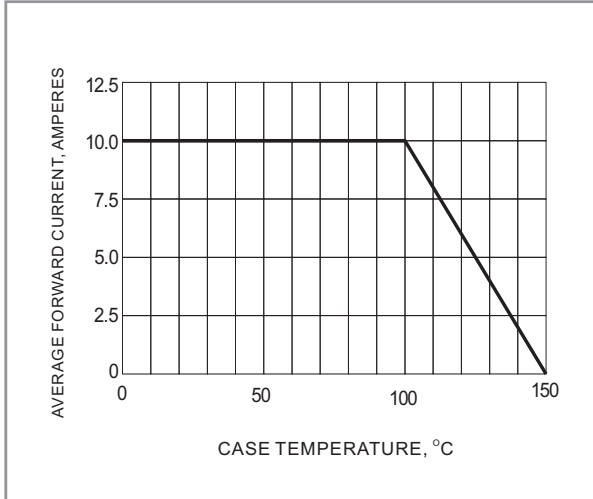
**NOTES:**

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.

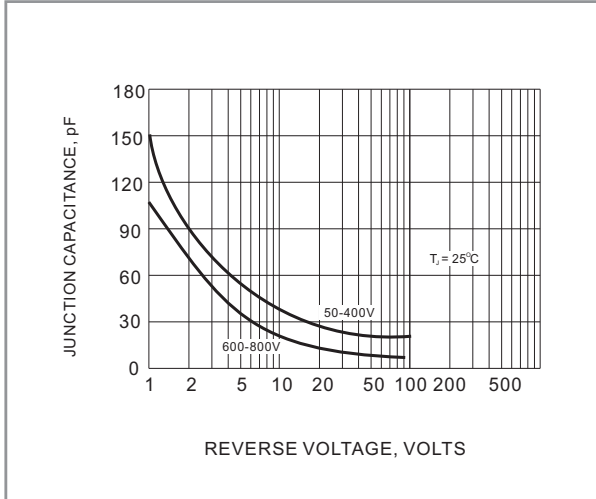


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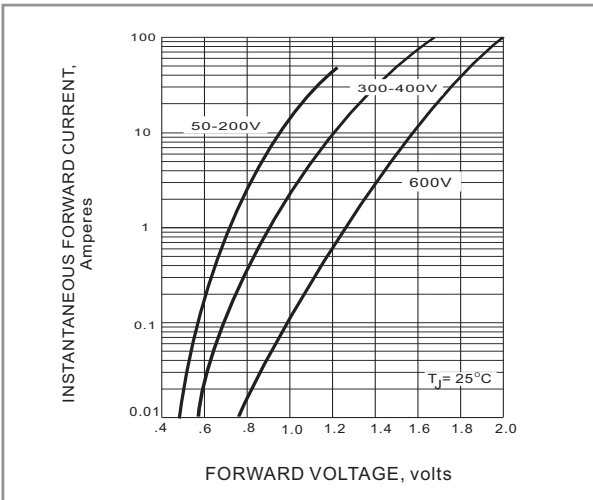
## RATING AND CHARACTERISTIC CURVES



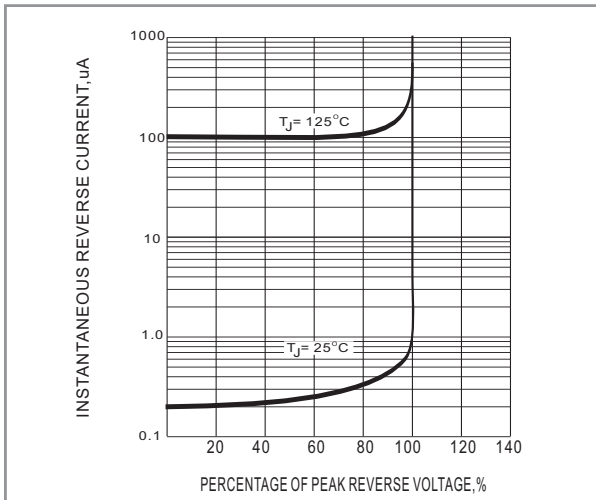
**Fig. 1 FORWARD CURRENT DERATING CURVE**



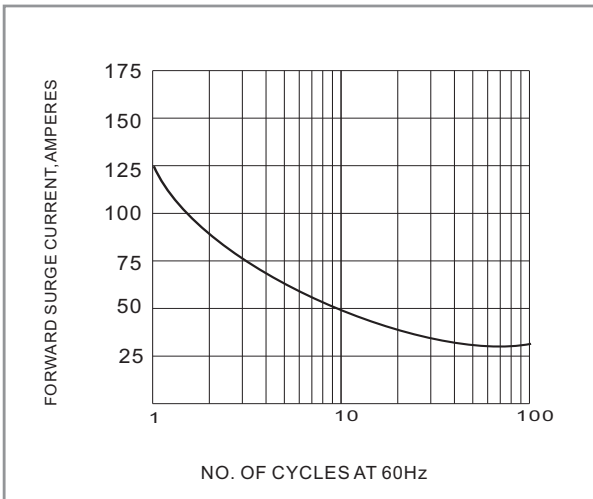
**Fig. 2 TYPICAL JUNCTION CAPACITANCES**



**Fig. 3 FORWARD CHARACTERISTICS**



**Fig. 4 TYPICAL REVERSE CHARACTERISTICS**



**Fig. 5 PEAK FORWARD SURGE CURRENT**



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**Part No\_packing code\_Version**

UF1000FCT\_T0\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> -5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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