



#### **ULTRAFAST RECOVERY RECTIFIERS**

VOLTAGE 50 to 600 Volt CURRE

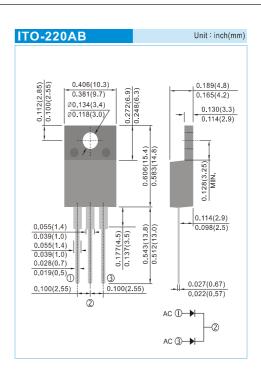
CURRENT 10 Ampere

#### **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)

#### **MECHANCAL 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		50	100	200	300	400	600	V
Maximum RMS Voltage		35	70	140	210	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	10						
Peak Forward Surge Current :8.3ms single half sinewave superimposed on rated load	I <sub>FSM</sub>	125						А
Maximum Forward Voltage at 5A	V <sub>F</sub>	1 1.3			1.7	V		
Maximum DC Reverse Current $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=125^{\circ}C$	I <sub>R</sub>	1 500						μА
Typical Junction Capacitance (Note 1)	C¹	60 40					40	pF
Maximum Reverse Recovery Time (Note 2)	t <sub>rr</sub>	50					100	ns
Typical Thermal Resistance (Note 3)	R <sub>eJC</sub>	2						°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150					°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,  $I_R$ =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**

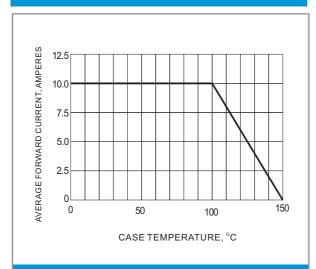


Fig.1 FORWARD CURRENT DERATING CURVE

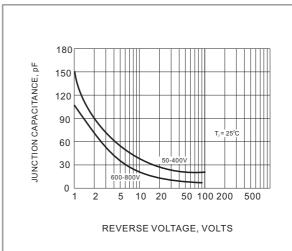


Fig.2 TYPICAL JUNCTION CAPACITANCES

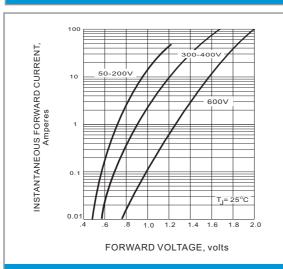


Fig.3 FORWARD CHARACTERISTICS

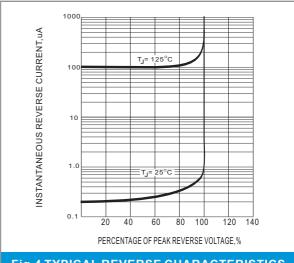
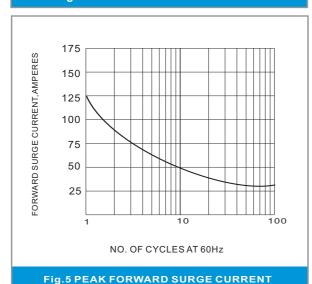


Fig.4 TYPICAL REVERSE CHARACTERISTICS



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## Part No\_packing code\_Version

UF1000FCT\_T0\_00001

# For example : RB500V-40\_R2\_00001 Part No. Serial number Version code means HF Packing size code means 13" Packing type means T/R

Packing Code XX					Version Code XXXXX			
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)	Α	N/A	0	HF	0	serial number		
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number		
Bulk Packing (B/P)	В	13"	2					
Tube Packing (T/P)	Т	26mm	X					
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y					
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U					
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D					

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