



# UF2002FCT SERIES

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 200 to 600 Volt **CURRENT** 20 Ampere

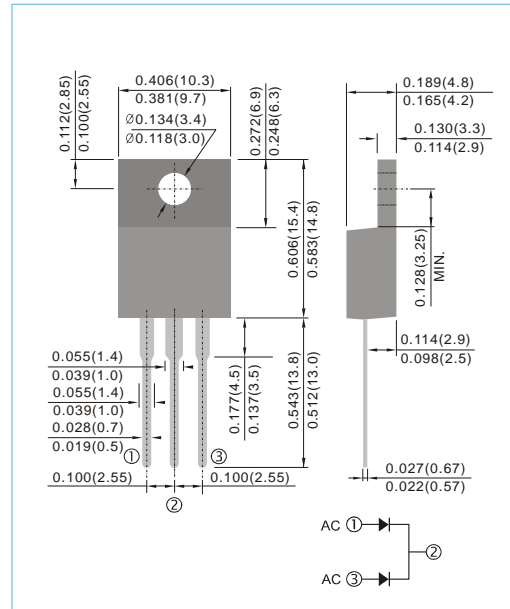
**ITO-220AB** Unit : inch(mm)

### 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 times, high voltage.
- Lead free in compliance with EU RoHS 2011/65/EU directive

### 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%

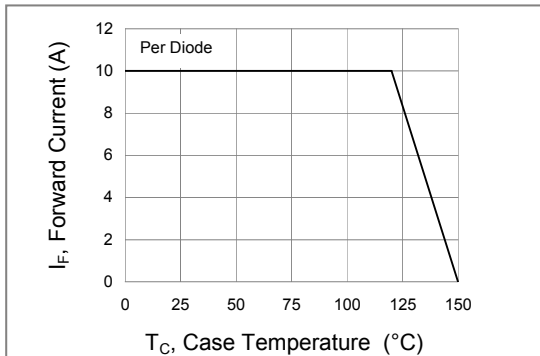
PARAMETER	SYMBOL	UF2002FCT	UF2003FCT	UF2004FCT	UF2006FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	20				A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150				A
Maximum Forward Voltage at 10A	$V_F$	1	1.3	1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	1 250				$\mu A$
Typical Junction Capacitance (Notes 1)	$C_J$	200				pF
Maximum Reverse Recovery Time (Notes 2)	$t_{rr}$	50			100	ns
Typical Thermal Resistance (Notes 3)	$R_{\theta JC}$	7				°C / W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				°C

#### NOTES:

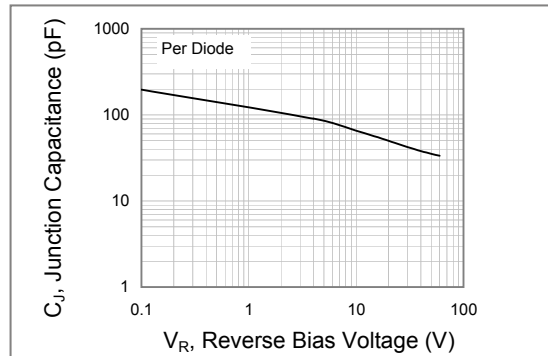
1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
2. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .
3. Thermal resistance from Junction to ambient and from junction to lead



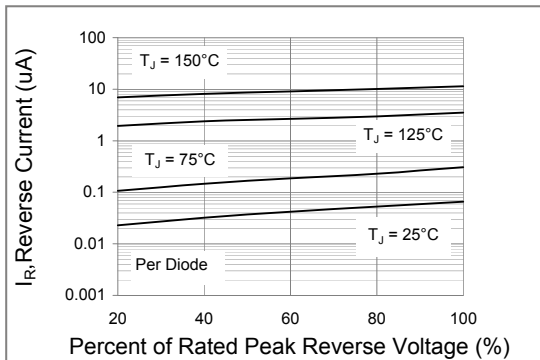
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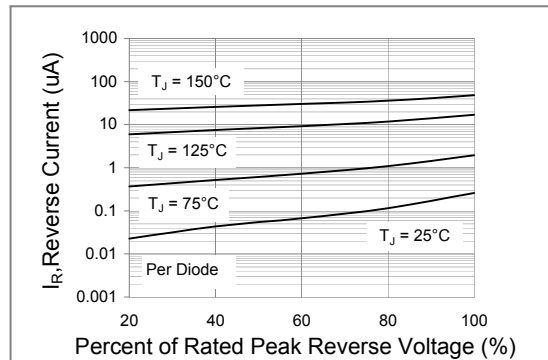
**Fig.1 Forward Current Derating Curve**



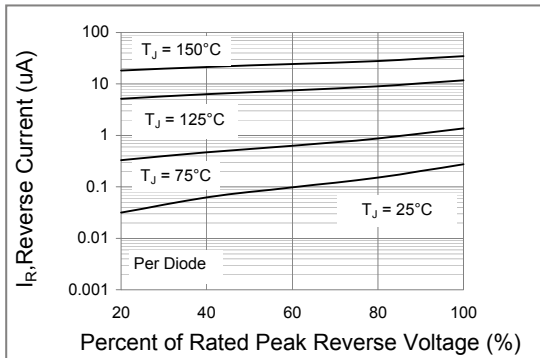
**Fig.2 Typical Junction Capacitance**



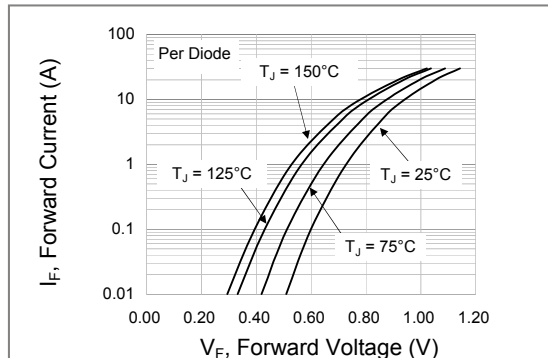
**Fig.3 UF2002FCT Typical Reverse Characteristics**



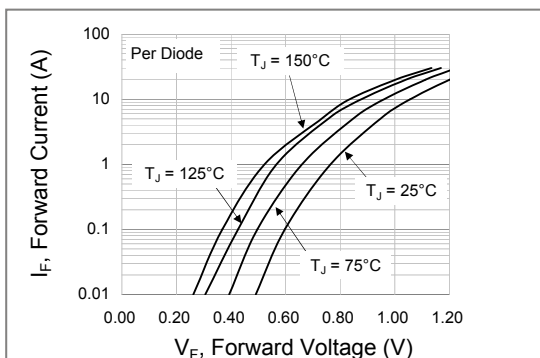
**Fig.4 UF2003FCT & UF2004FCT Typical Reverse Characteristics**



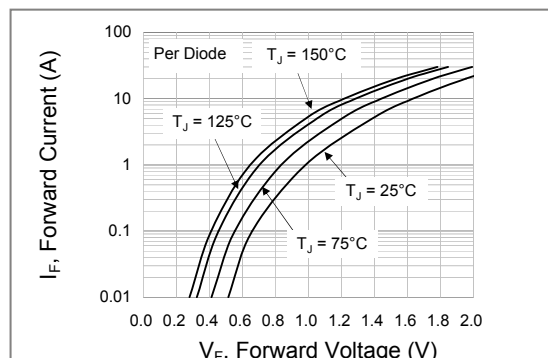
**Fig.5 UF2006FCT Typical Reverse Characteristics**



**Fig.6 UF2002FCT Typical Forward Characteristics**



**Fig.7 UF2003FCT & UF2004FCT Typical Forward Characteristics**



**Fig.8 UF2006FCT Typical Forward Characteristics**



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### Part No\_packing code\_Version

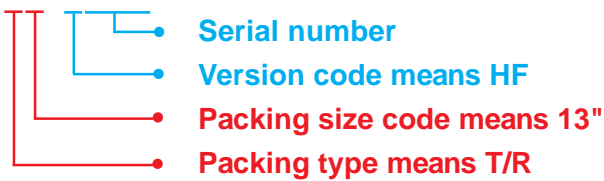
UF2002FCT\_T0\_00001

UF2002FCT\_T0\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.



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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	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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