



## **SUPERFAST RECOVERY RECTIFIERS**

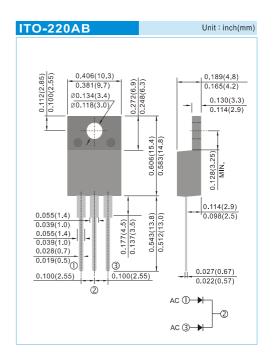
VOLTAGE 50 to 600 Volt CURRENT 10 Ampere

#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
   Flame Retardant Epoxy Molding Compound.
- · Low power loss, high efficiency.
- · Low forward voltge, high current capability
- · High surge capacity.
- · Super fast recovery times, high voltage.
- · Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

## **MECHANICAL DATA**

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



## MAXIMUM RATING 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	ER1000FCT	ER1001FCT	ER1001AFCT	ER1002FCT	ER1003FCT	ER1004FCT	ER1006FCT	UNITS
Maximum Recurrent Peak Reverse Voltage		50	100	150	200	300	400	600	V
Maximum RMS Voltage		35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum Average Forward Current at T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	10					А		
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150						А	
Maximum Forward Voltage at 5A, per element	V <sub>F</sub>	0.95 1.3 1.7			1.7	V			
Maximum DC Reverse Current at Rated DC Blocking $T_J$ =25°C Voltage $T_J$ =100°C	I <sub>R</sub>	1 500				μА			
Maximum Reverse Recovery Time (Note 2)	t,,	35			ns				
Typical Junction Capacitance (Note 1)	C¹	62				pF			
Typical Thermal Resistance	R <sub>eJC</sub>	3				°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. Both Bonding and Chip structure are available.

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## **RATING AND CHARACTERISTIC CURVES**

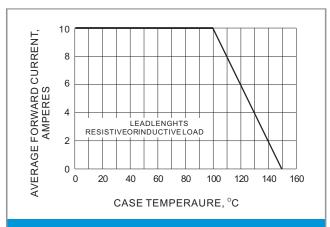


Fig.1- FORWARD CURRENT DERATING CURVE

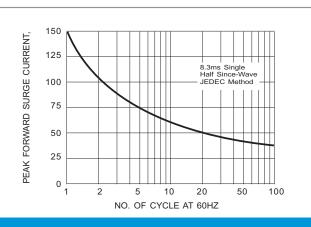


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

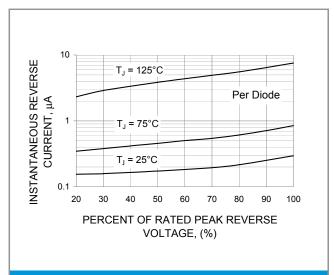


Fig.3- TYPICAL REVERSE CHARACTERISTIC

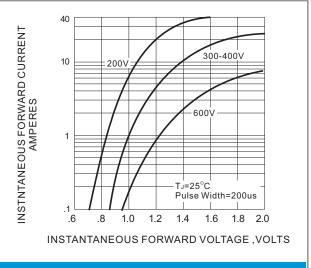


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC





## Part No\_packing code\_Version

ER1000FCT\_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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