



# DATA SHEET

## ER1000FCT~ER1004FCT

### ISOLATION SUPERFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 400 Volts **CURRENT** 10 Amperes

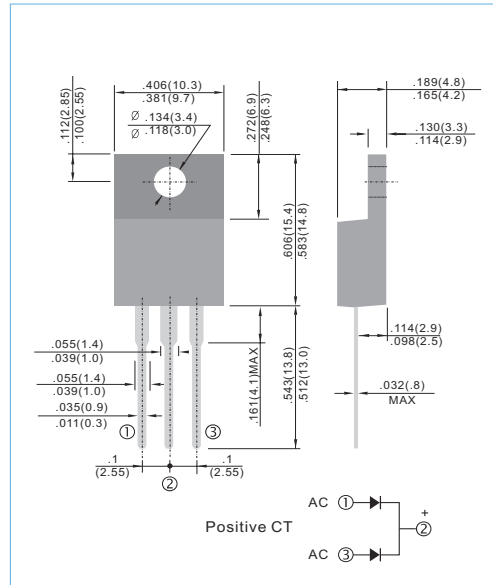
ITO-220AB Unit : inch (mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: ITO-220AB Molded plastic  
 Terminals: Lead solderable per MIL-STD-202, Method 208  
 Polarity: As marked.  
 Standard packaging: Any  
 Weight: 0.08 ounces, 2.24grams.



#### 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%

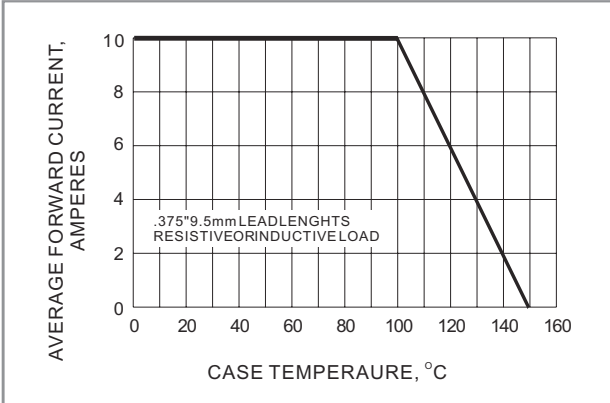
PARAMETER	SYMBOL	ER1000FCT	ER1001FCT	ER1001AFCT	ER1002FCT	ER1003FCT	ER1004FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	V
Maximum Average Forward Current .375"(9.5mm) lead length at T <sub>c</sub> =100°C	I <sub>AV</sub>	10.0						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	150						A
Maximum Forward Voltage at 5A, per element	V <sub>F</sub>	0.95				1.30		V
Maximum DC Reverse Current at TA=25°C Rated DC Blocking Voltage TA=100°C	I <sub>R</sub>	10 500						uA
Maximum Reverse Recovery Time (Note 2)	T <sub>RR</sub>	35				50		ns
Typical Junction capacitance (Note 1)	C <sub>J</sub>	62						pF
Maximum Thermal Resistance	R <sub>θJC</sub>	3.0						°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50 TO +150						°C

NOTES:

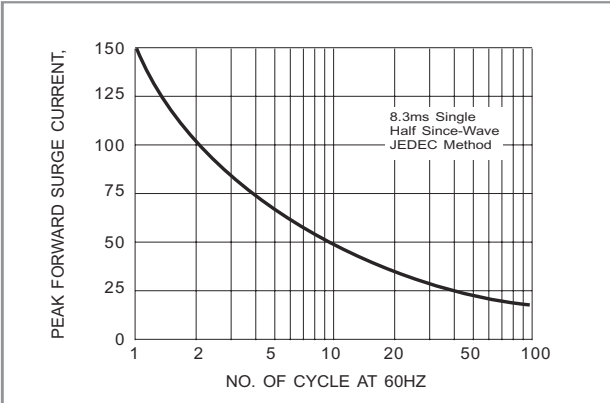
1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: I<sub>F</sub>=.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=.25A.
3. Both Bonding and Chip structure are available.



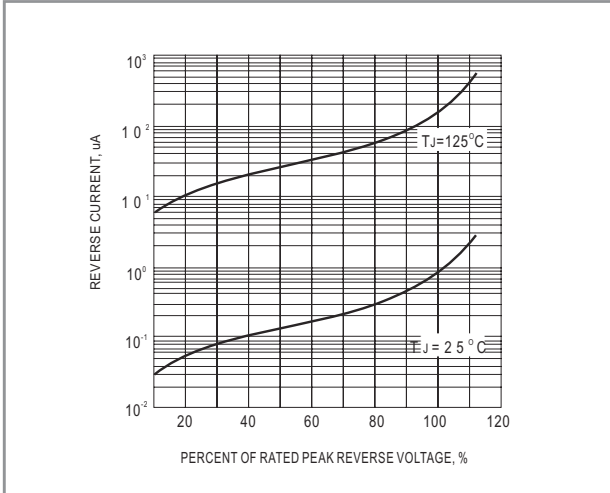
**RATING AND CHARACTERISTIC CURVES**



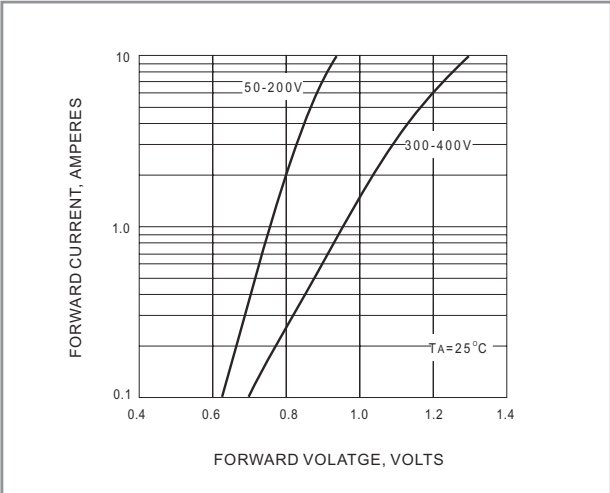
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**