

# ER3000FCT~ER3006FCT

## ISOLATION SUPERFAST RECOVERY RECTIFIER

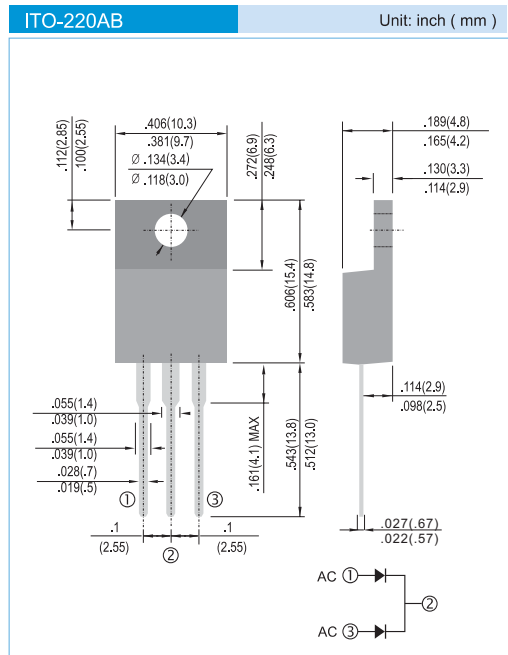
**VOLTAGE** 50 to 600 Volts **CURRENT** 30 Amperes

### 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.
- Epitaxial chip construction.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: ITO-220AB Molded plastic
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.55 ounces, 1.56 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	ER3000FCT	ER3001FCT	ER3001AFCT	ER3002FCT	ER3003FCT	ER3004FCT	ER3006FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum Average Forward Current at $T_c=100^\circ\text{C}$	$I_{F(AV)}$	30							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	300							A
Maximum Forward Voltage at 10A	$V_F$	0.95			1.3		1.7		V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	1			50				$\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$t_{rr}$	35			35				ns
Typical Junction capacitance (Note 1)	$C_j$	85							pF
Typical thermal Resistance (Note 3)	$R_{\theta Jc}$	3.0							$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

#### NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Reverse Recovery Test Conditions:  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$ .
- Both Bonding and Chip structure are available.

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## RATING AND CHARACTERISTIC CURVES

