

ER1000FCT THRU ER1004FCT

ISOLATION SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 400 Volts CURRENT - 10.0 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing 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

MECHANICAL DATA

Case: ITO-220AB full molded plastic package

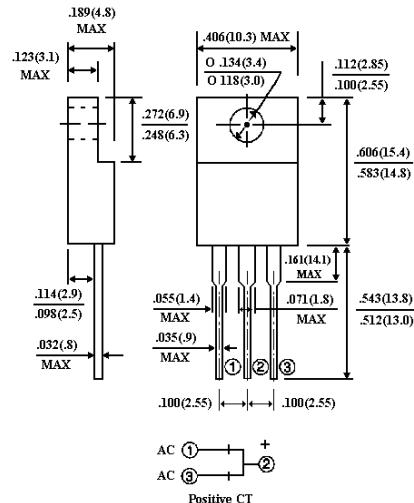
Terminals: Leads, solderable per MIL-STD-202, Method 208

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounces, 2.24 grams

ITO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, Resistive or inductive load.

For capacitive load, derate current by 20%.

	ER1000FC T	ER1001FC T	ER1001A FCT	ER1002FC T	ER1003FC T	ER1004FC T	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	V
Maximum RMS Voltage	35	70	105	140	210	320	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current at $T_C=100$ °C				10.0			A
Peak Forward Surge Current, 8.3ms single half sine-Wave superimposed on rated load(JEDEC method)				150			A
Maximum Forward Voltage at 5.0A per element			0.95		1.30		V
Maximum DC Reverse Current at Rated $T_C=25$ °C				5			fg A
DC Blocking Voltage per element $T_C=100$ °C				500			
Typical Junction capacitance (Note 1)			42				pF
Maximum Reverse Recovery Time (Note 2)		35			50		ns
Typical Thermal Resistance (Note 3) R_{JKC}			3.0				°C/W
Operating and Storage Temperature Range T_J			-55 to +150				°C

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$
3. Thermal resistance junction to CASE

RATING AND CHARACTERISTIC CURVES
ER1000FCT THRU ER1004FCT

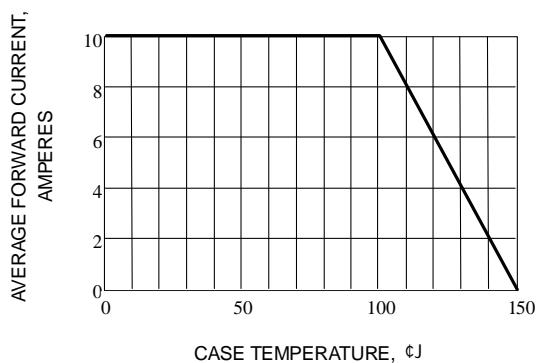


Fig. 1-FORWARD CURRENT DERATING CURVE

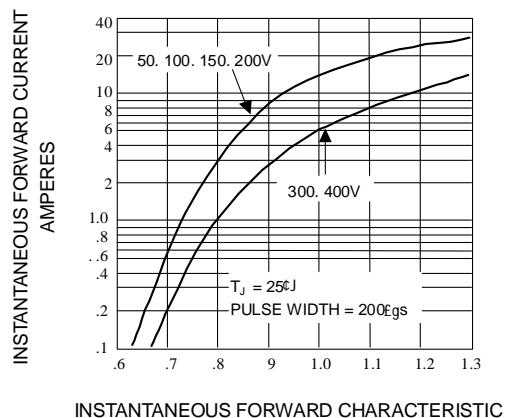


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

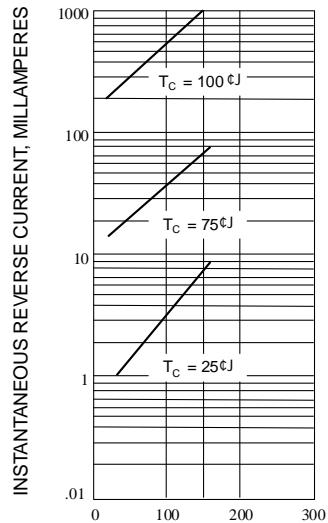


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

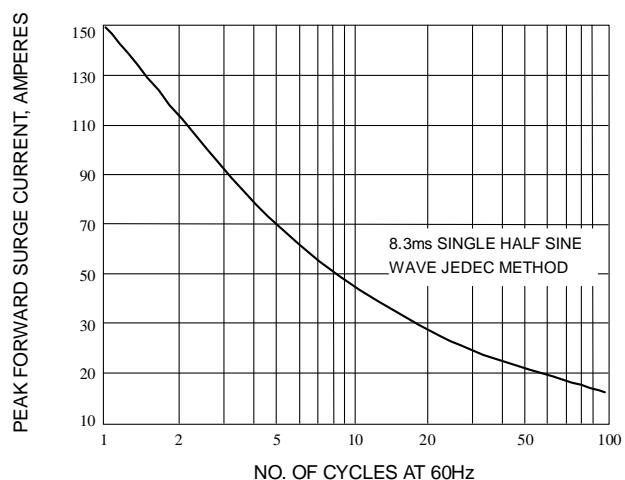


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

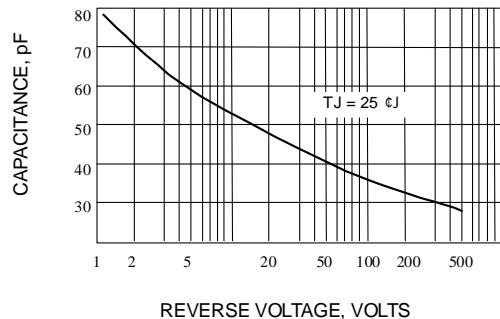


Fig. 5-TYPICAL JUNCTION CAPACITANCE