ER1000 THRU ER1004

SUPERFAST RECOVERY RECTIFIERS
VOLTAGE - 50 to 400 Volts CURRENT - 10.0 Amperes

FEATURES

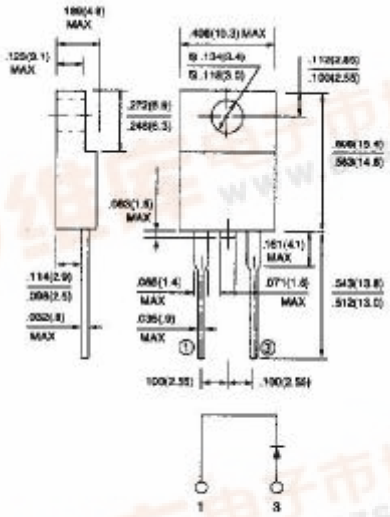
- Plastic package has Underwriters Laboratory

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

TO-220AC



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: TO-220AC molded plastic

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

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounces, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	ER1000	ER1001	ER1001A	ER1002	ER1003	ER1004	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	10						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	150						A
Maximum Forward Voltage at 10.0A per element	0.95				1.30		V
Maximum DC Reverse Current at Rated T_a=25 DC Blocking Voltage per element T_a=125	10 500						A
Typical Junction capacitance (Note 1)	62						pF
Maximum Reverse Recovery Time(Note 2)	35				50		ns
Typical Thermal Resistance(Note 3) R JC	3.0						/W
Operating and Storage Temperature Range T_J	-55 to +150						

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, Irr=.25A

3. Thermal resistance junction to CASE

RATING AND CHARACTERISTIC CURVES

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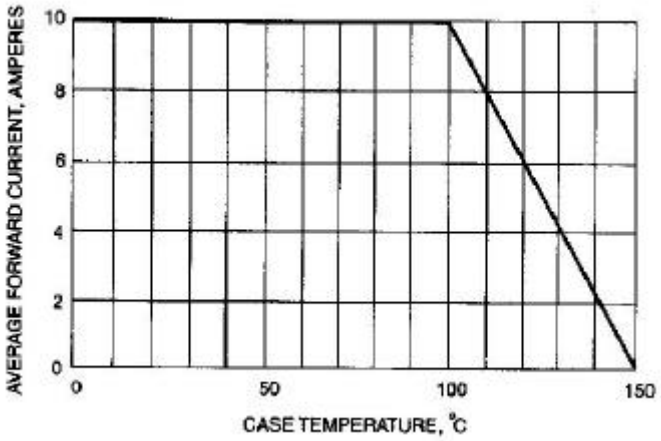

Fig. 1-FORWARD CURRENT DERATING CURVE

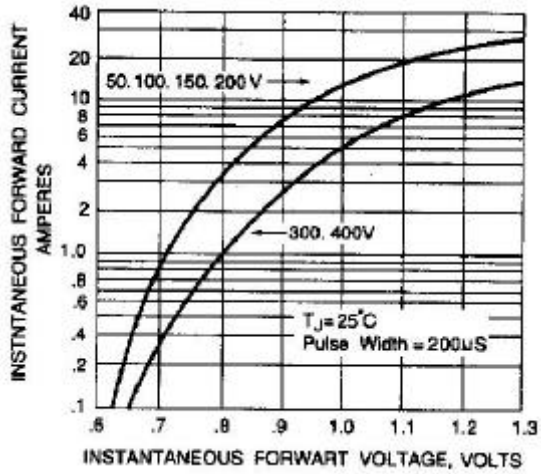

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

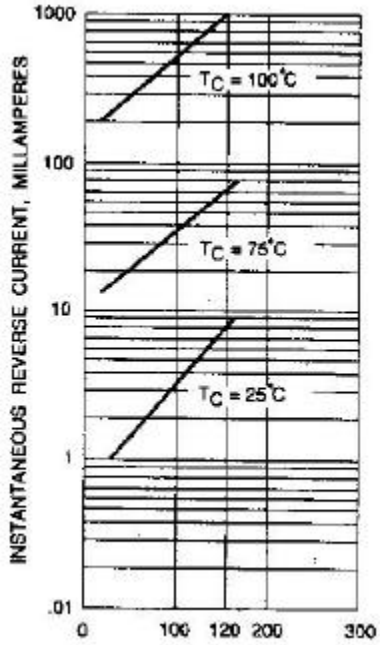

Fig. 3-TYPICAL REVERSE CHARACTERISTICS

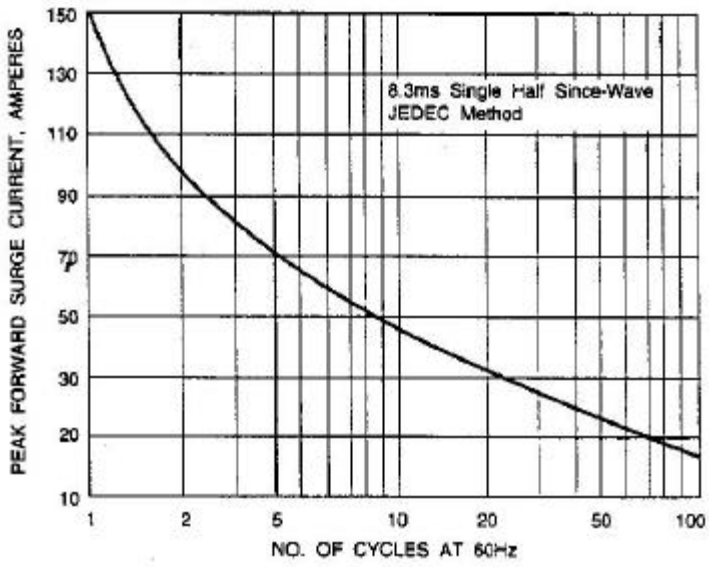

Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

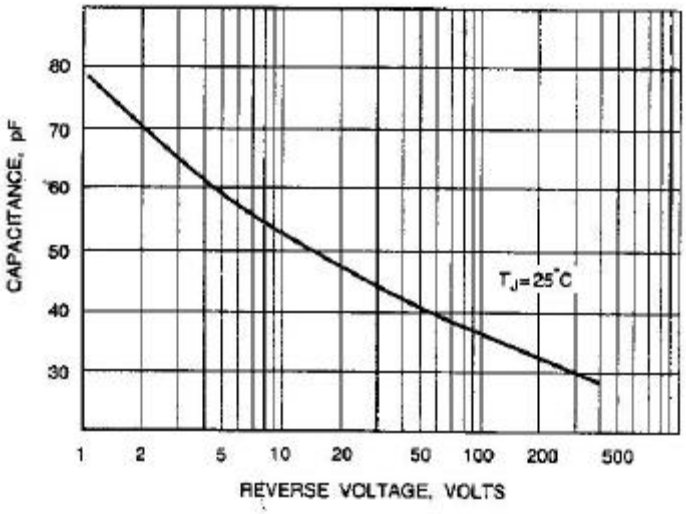

Fig. 5-TYPICAL JUNCTION CAPACITANCE