

ER800 THRU ER804

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 400 Volts CURRENT - 8.0 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: TO-220AC molded plastic

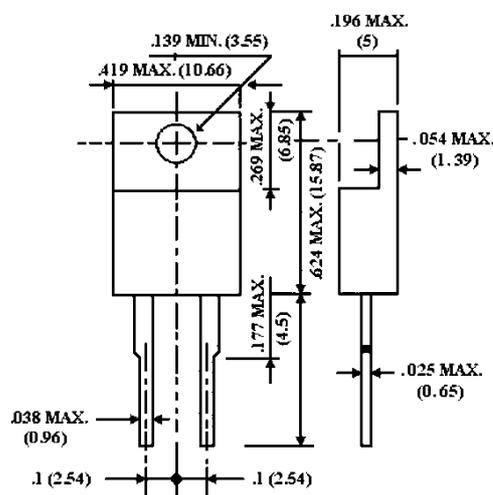
Terminals: Lead, solderable per MIL-STD-202, Method 208

Polarity: As marked

Mounting Position: Any

Weight: 0.08 ounces, 2.24 grams

TO-220AC



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%.

	ER800	ER801	ER801A	ER802	ER803	ER804	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	8.0						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	125						A
Maximum Forward Voltage at 8.0A per element	0.95			1.30			V
Maximum DC Reverse Current at $T_a=25$ °C	10						µA
DC Blocking Voltage per element $T_a=125$ °C	500						V
Typical Junction capacitance (Note 1)	62						pF
Maximum Reverse Recovery Time(Note 2)	35			50			ns
Typical Junction Resistance(Note 3) R _{θJKC}	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: $I_F=.5A$, $I_R=1A$, $I_{rr}=.25A$
3. Thermal resistance junction to CASE

RATING AND CHARACTERISTIC CURVES

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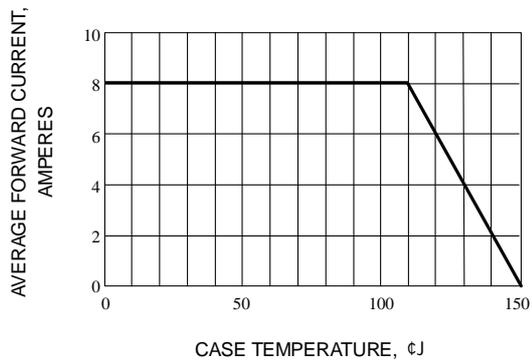


Fig. 1-FORWARD CURRENT DERATING CURVE

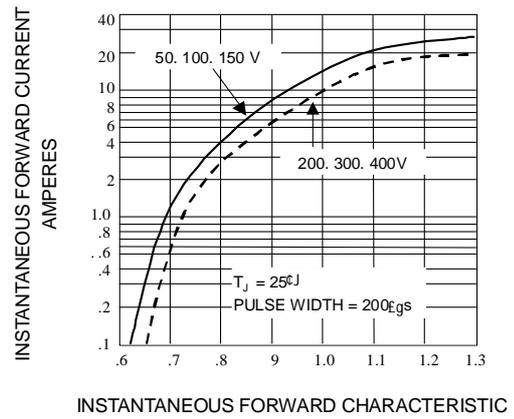


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

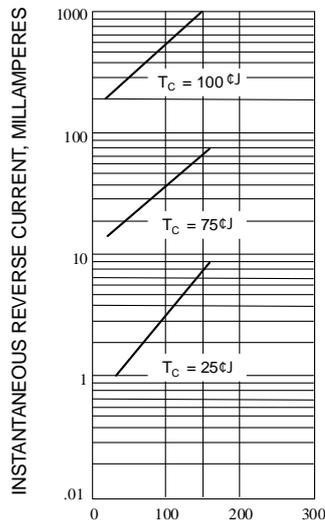


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

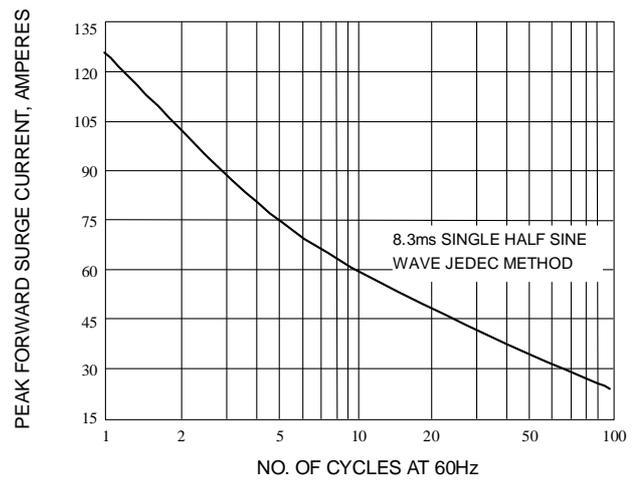


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

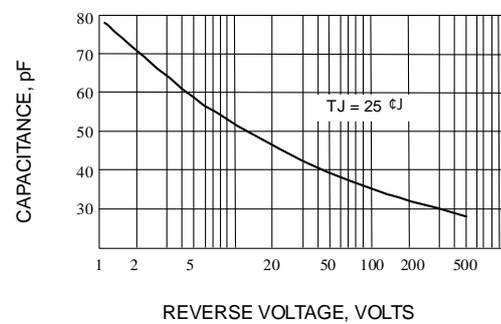


Fig. 5-TYPICAL JUNCTION CAPACITANCE