

ER800~ER806

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volt **CURRENT** 8 Ampere

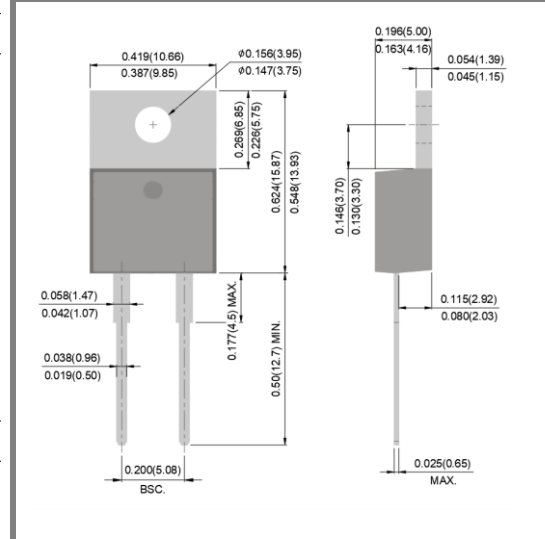
TO-220AC Dimension **Unit: inch(mm)**

FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: Molded plastic, TO-220AC
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: As marking
- Approx. Weight: 1.8903 grams



① ← ③

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	ER800	ER801	ER801A	ER802	ER803	ER804	ER806	UNIT
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 $T_C=75^\circ\text{C}$	$I_{F(AV)}$	8							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	125							A
Maximum Forward Voltage at 8A (Note 1)	V_F	0.95				1.3		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^\circ\text{C}$			1			μA	
		$T_J=100^\circ\text{C}$			300				
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35							ns
Typical Junction Capacitance (Note 3)	C_J	65							pF
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	3							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							$^\circ\text{C}$

NOTES :

1. Pulse Test with $PW=300\mu\text{sec}$, 2% Duty Cycle.
2. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.
3. Measured at 1MHz and applied reverse voltage of $V_R=4\text{V}$.
4. Mounted on P.C. Board with 14mm^2 (0.013mm thick) copper pad areas.

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RATING AND CHARACTERISTIC CURVES

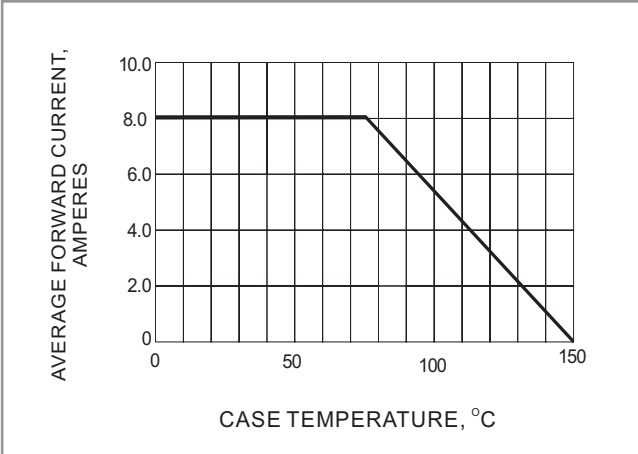


Fig. 1-FORWARD CURRENT DERATING CURVE

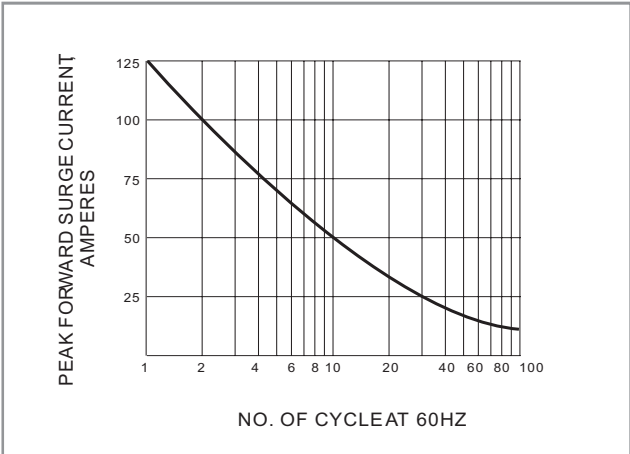


Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

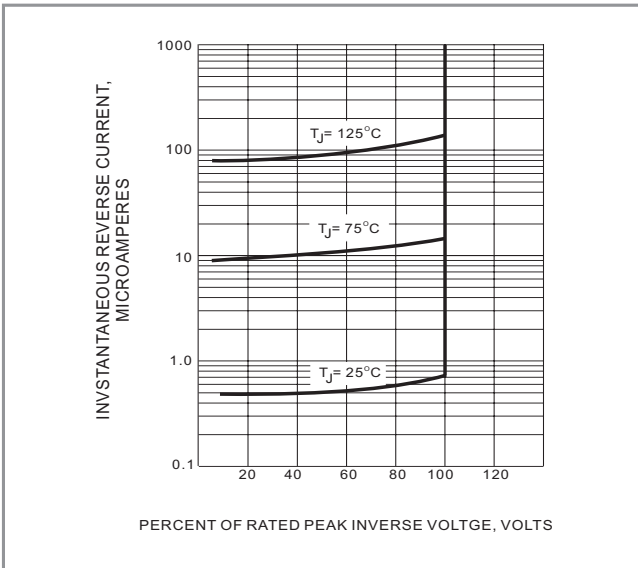


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

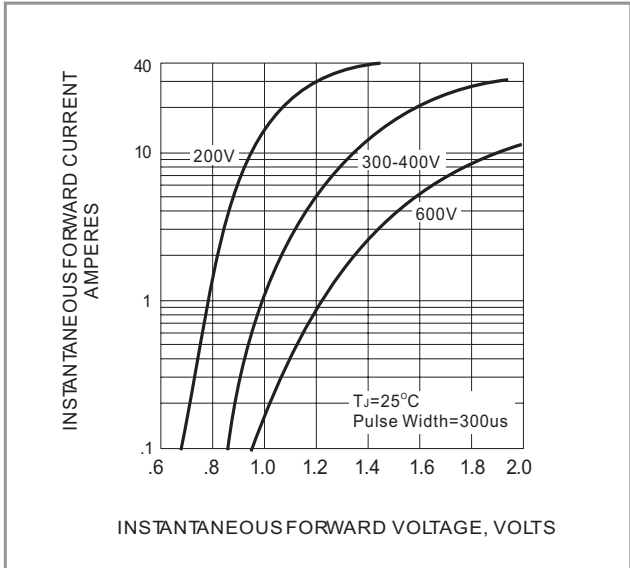


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ER800	TO-220AC	50pcs / Tube	ER800
ER801	TO-220AC	50pcs / Tube	ER801
ER801A	TO-220AC	50pcs / Tube	ER801A
ER802	TO-220AC	50pcs / Tube	ER802
ER803	TO-220AC	50pcs / Tube	ER803
ER804	TO-220AC	50pcs / Tube	ER804
ER806	TO-220AC	50pcs / Tube	ER806

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