PANJIT SEMI CONDUCTOR

ER1000~ER1006

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volt **CURRENT** 10 Ampere

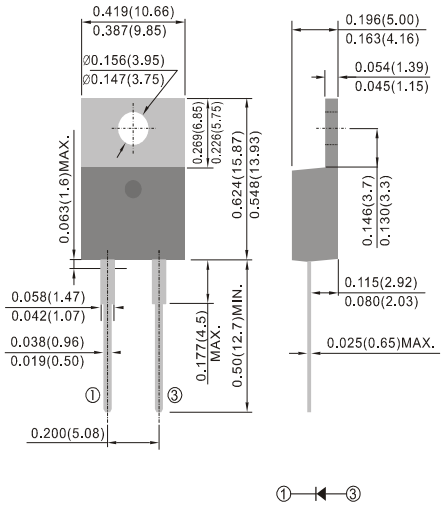
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: TO-220AC Molded plastic
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.067 ounces, 1.89 grams.

TO-220AC Unit : inch(mm)



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	ER1000	ER1001	ER1001A	ER1002	ER1003	ER1004	ER1006	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°C	$I_{F(AV)}$	10							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Maximum Forward Voltage at 10A, per element	V_F	0.95				1.3		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_J=25°C / T_J=100°C	I_R	1 / 500							μA
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35				50			ns
Typical Junction Capacitance (Note 1)	C_J	62							pF
Typical Thermal Resistance	$R_{\theta JC}$	3							°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Irr=0.25A.
3. Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

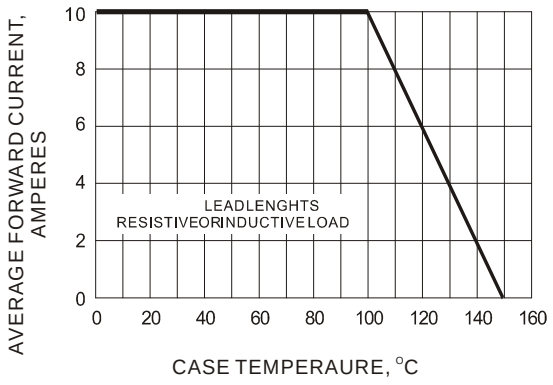

Fig.1- FORWARD CURRENT DERATING CURVE

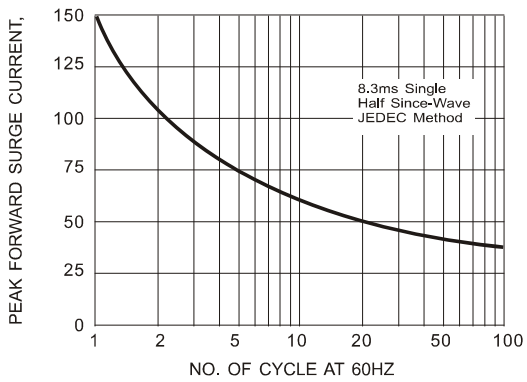

Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

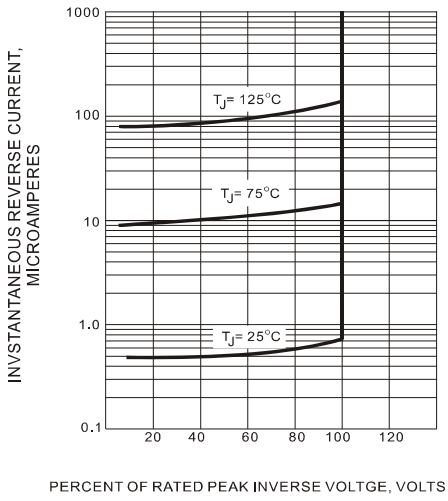

Fig.3- TYPICAL REVERSE CHARACTERISTIC

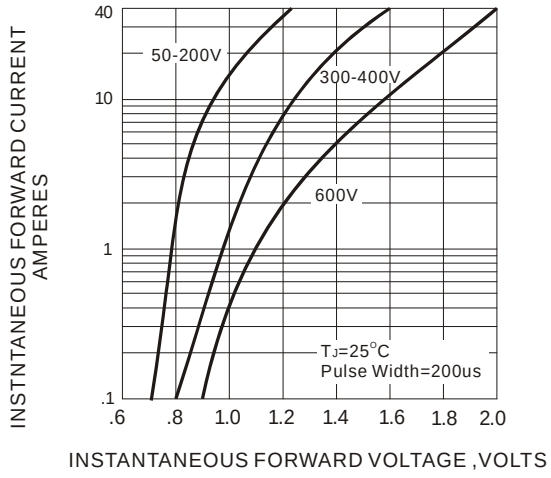

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ER1000	TO-220AC	50pcs / Tube	ER1000
ER1001	TO-220AC	50pcs / Tube	ER1001
ER1001A	TO-220AC	50pcs / Tube	ER1001A
ER1002	TO-220AC	50pcs / Tube	ER1002
ER1003	TO-220AC	50pcs / Tube	ER1003
ER1004	TO-220AC	50pcs / Tube	ER1004
ER1006	TO-220AC	50pcs / Tube	ER1006

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