PANJIT SEMI CONDUCTOR

ER2000CT~ER2006CT

ISOLATION SUPERFAST RECOVERY RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 20 Ampere

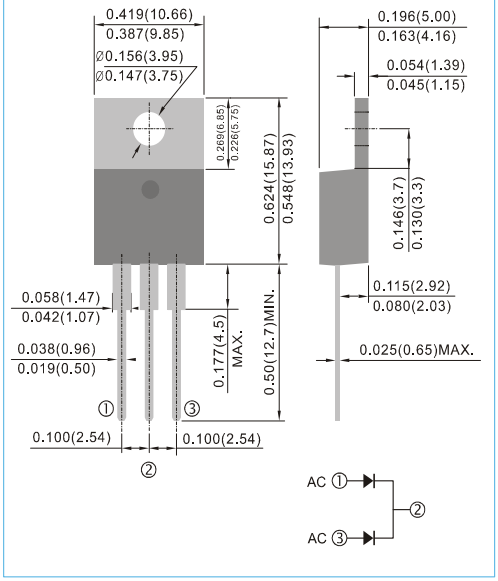
FEATURES

- 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.
- Epitaxial chip construction.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: TO-220AB 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-220AB Unit : inch(mm)



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICSS

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	ER2000CT	ER2001CT	ER2001ACT	ER2002CT	ER2003CT	ER2004CT	ER2006CT	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=90°C	$I_{F(AV)}$	20							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Maximum Forward Voltage at 10A	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	85							pF
Typical thermal Resistance (Note 3)	$R_{\theta Jc}$	3							°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-50 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

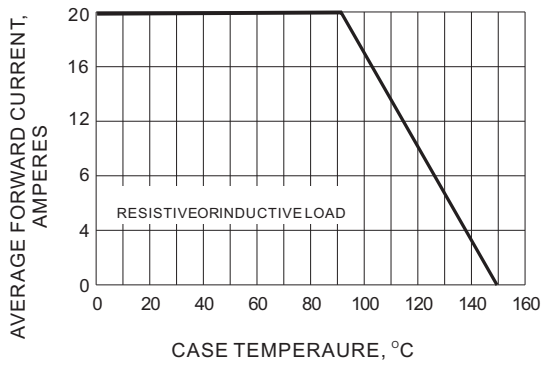


Fig.1- FORWARD CURRENT DERATING CURVE

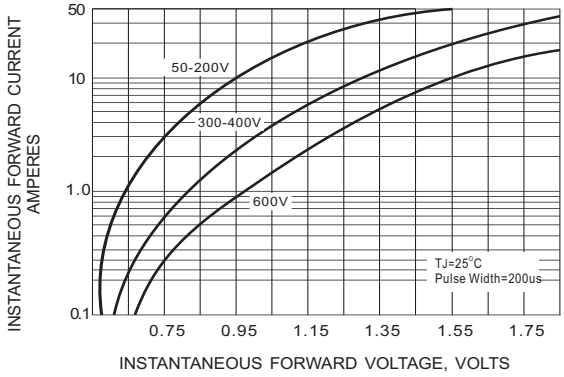


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

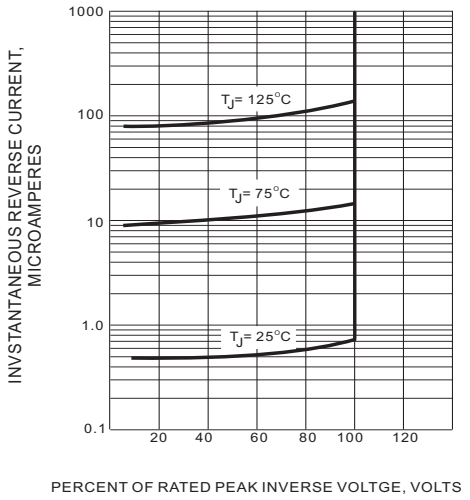


FIG.3 TYPICAL REVERSE CHARACTERISTICS

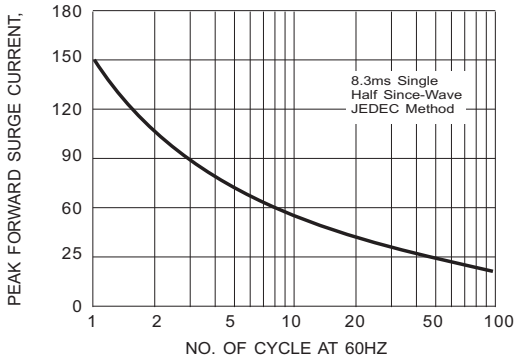


Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT

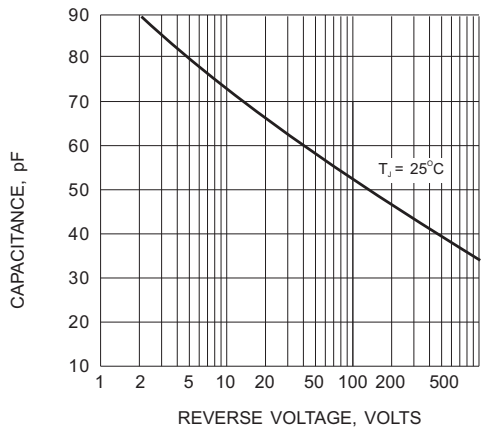


Fig.5- TYPICAL JUNCTION CAPACITANCE

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Part No_packing code_Version

ER2000CT_T0_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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