



ER2000CT~ER2004CT

ISOLATION SUPERFAST RECOVERY RECTIFIER

VOLTAGE 50 to 400 Volts **CURRENT** 20.0 Amperes

TO-220AB

Unit : inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. 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.
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

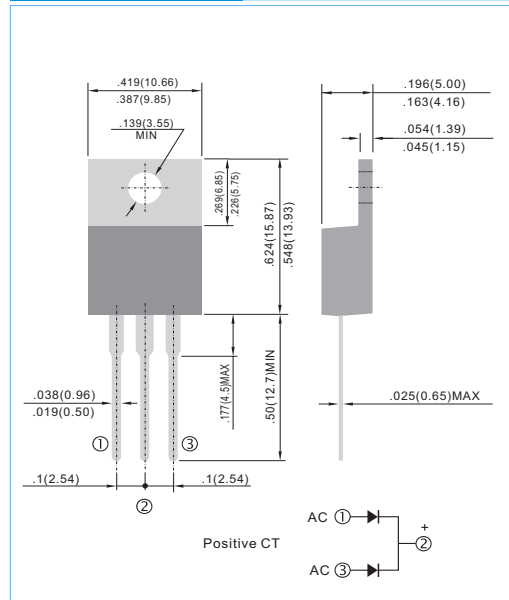
Case: TO-220AB Molded plastic

Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked.

Standard packaging: Any

Weight: 0.08 ounces, 2.24grams.



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	ER2000 CT	ER2001 CT	ER2001A CT	ER2002 CT	ER2003 CT	ER2004 CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	V
Maximum Average Forward Current lead length at $T_c = 90^\circ C$	$I_{F(AV)}$	20.0						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150						A
Maximum Forward Voltage at 10A	V_F	0.95				1.30		V
Maximum DC Reverse Current at $T_A = 25^\circ C$ Rated DC Blocking Voltage $T_A = 100^\circ C$	I_R	10 500						μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	35				50		ns
Typical Junction capacitance (Note 1)	C_J	85						pF
Maximum Thermal Resistance	$R_{\theta JC}$	3.0						$^\circ C / W$
Operating and Storage Temperature Range	T_J, T_{STG}	-50 TO +150						$^\circ C$

NOTES:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Reverse Recovery Test Conditions: $I_F = .5A$, $I_R = 1A$, $I_{rr} = .25A$.
- Both Bonding and Chip structure are available.



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RATING AND CHARACTERISTIC CURVES

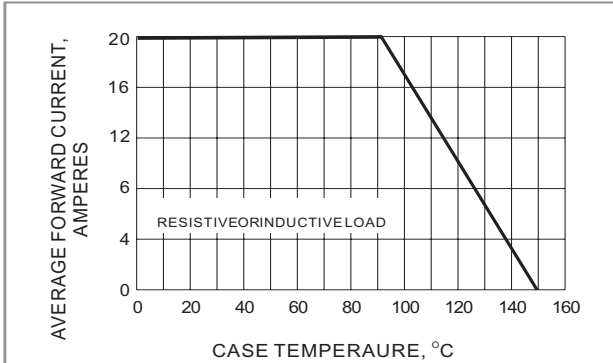


Fig.1- FORWARD CURRENT DERATING CURVE

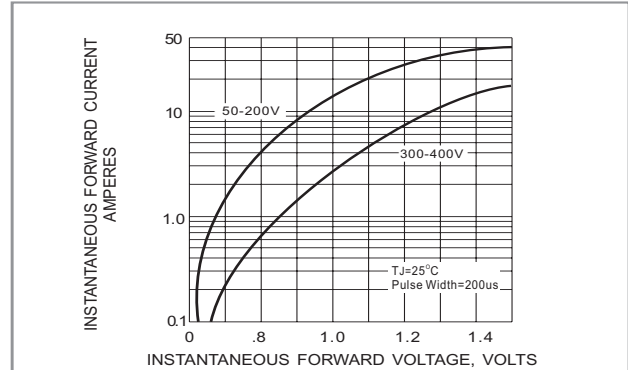


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

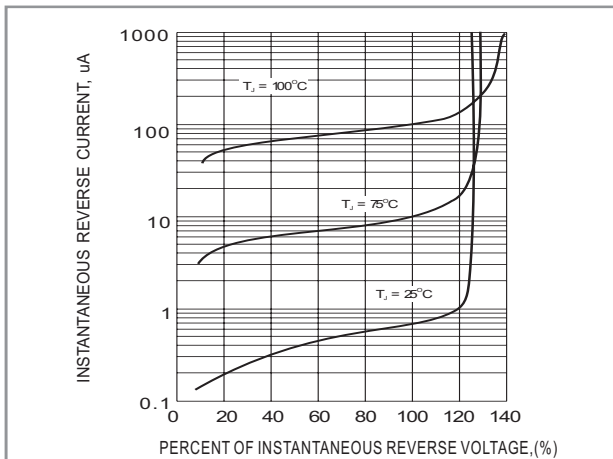


Fig.3- TYPICAL REVERSE CHARACTERISTIC

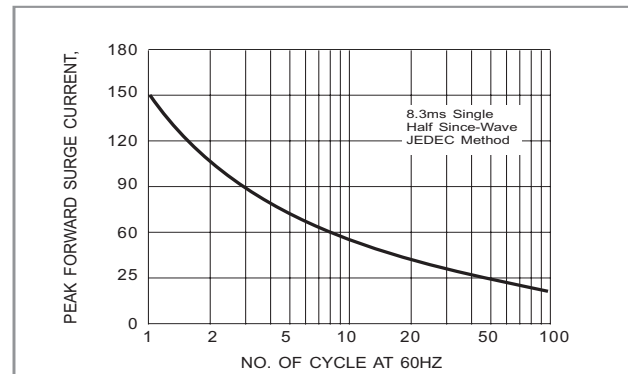


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

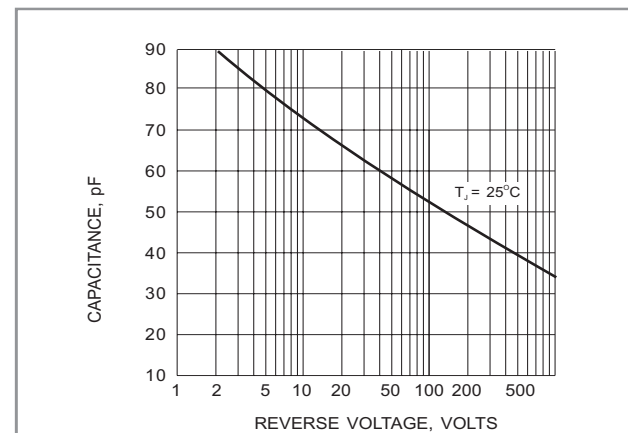


Fig.5- TYPICAL JUNCTION CAPACITANCE