PANJIT SEMI CONDUCTOR

DATA SHEET

ER1600CT~ER1604CT

SUPERFAST RECOVERY RECTIFIER

VOLTAGE 50 to 400 Volts **CURRENT** 16.0 Amperes

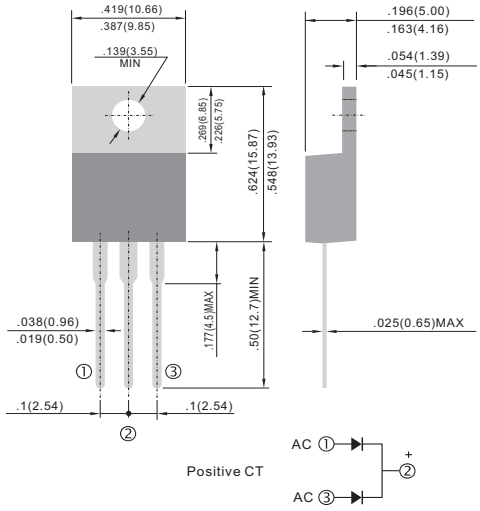
FEATURES

- 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 forwrd voltge, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Epitaxial chip construction.
- Both normal and Pb free product are available :
  Normal : 80~95% Sn, 5~20% Pb
  Pb free: 98.5% Sn above

MECHANICALDATA

Case: TO-220AB Molded plastic
Terminals: Lead solderable per MIL-STD-202, Method 208
Polarity: As marked.
Standard packaging: Any
Weight: 0.08 ounces, 2.24grams.

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	ER1600 CT	ER1601 CT	ER1601A CT	ER1602 CT	ER1603 CT	ER1604 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 .375"(9.5mm) lead length at Tc =90°C	I_{AV}	16.0						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	125						A
Maximum Forward Voltage at 8A	V_F	0.95				1.30		V
Maximum DC Reverse Current at T_A=25°C Rated DC Blocking Voltage T_A=100°C	I_R	10 500						uA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	35				50		ns
Typical Junction capacitance (Note 1)	C_J	62						pF
Maximum Thermal Resistance	RθJC	3.0						°C / W
Operating and Storage Temperature Range	T_J,T_{STG}	-50 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, Irr=.25A.
3. Both Bonding and Chip structure are available.

RATING AND CHARACTERISTIC CURVES

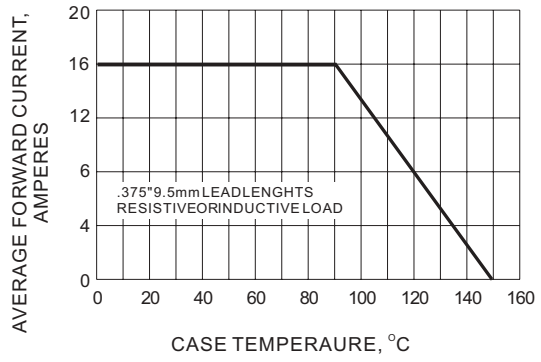


Fig.1- FORWARD CURRENT DERATING CURVE

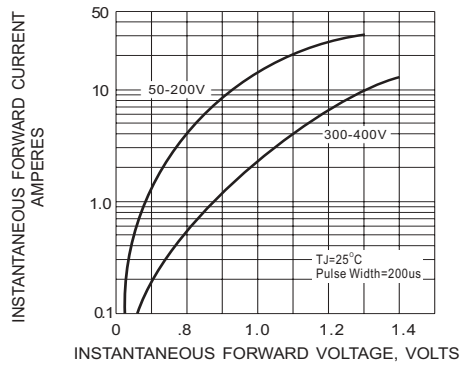


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

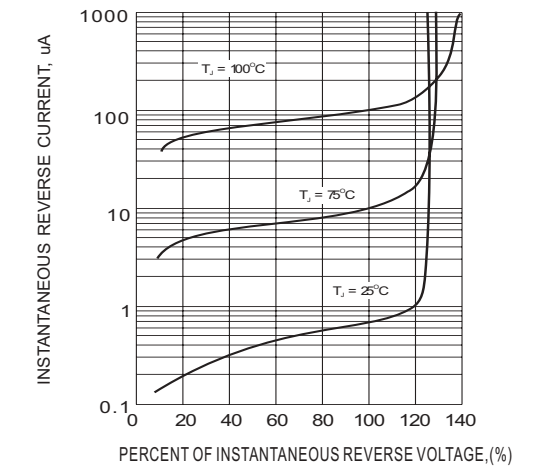


Fig.3- TYPICAL REVERSE CHARACTERISTIC

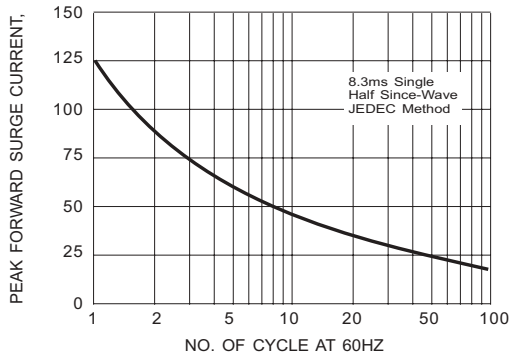


Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT

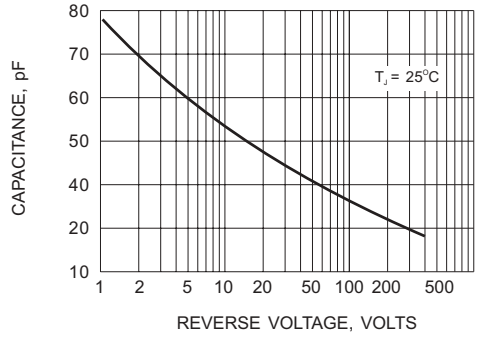


Fig.5- TYPICAL JUNCTION CAPACITANCE