



### **ISOLATION SUPERFAST RECOVERY RECTIFIER**

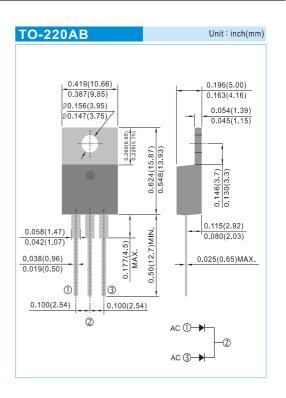
VOLTAGE 50 to 600 Volt CURRENT 16 Ampere

#### **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.



### **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		ER1600CT	ER1601CT	ER1601ACT	ER1602CT	ER1603CT	ER1604CT	ER1606CT	UNITS
Maximum Recurrent Peak Reverse Voltage		50	100	150	200	300	400	600	V
Maximum RMS Voltage		35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage		50	100	150	200	300	400	600	٧
Maximum Average Forward Current at T <sub>c</sub> =90°C	I <sub>F(AV)</sub>	16					А		
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	125					Α		
Maximum Forward Voltage at 8A	V <sub>F</sub>		0	95 1.3 1.7			1.7	٧	
Maximum DC Reverse Current at Rated DC Blocking $T_J=25^{\circ}\text{C}$ Voltage $T_J=100^{\circ}\text{C}$	I <sub>R</sub>	1 500			,	μΑ			
Maximum Reverse Recovery Time (Note 2)	t <sub>rr</sub>	35				ns			
Typical Junction Capacitance (Note 1)	C	62				pF			
Typical Thermal Resistance	R <sub>eJC</sub>	3				°C / W			
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-50 to +150			°C				

#### NOTES:

- 1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
- 2. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, Irr=0.25A.
- 3. Both Bonding and Chip structure are available.

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### **RATING AND CHARACTERISTIC CURVES**

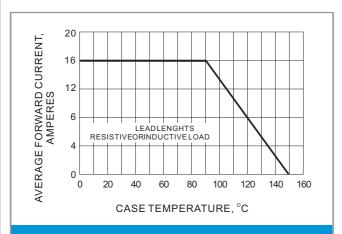


Fig.1- FORWARD CURRENT DERATING CURVE

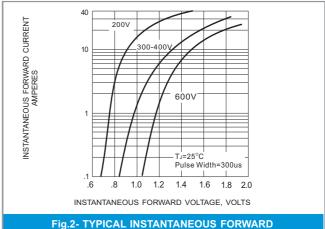


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

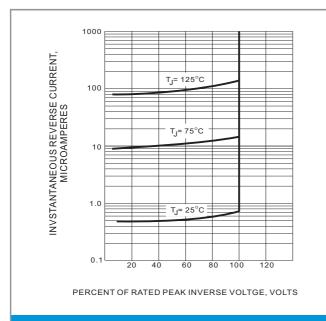


FIG.3 TYPICAL REVERSE CHARACTERISTICS

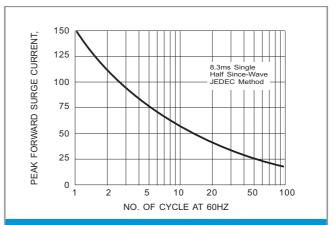


Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT

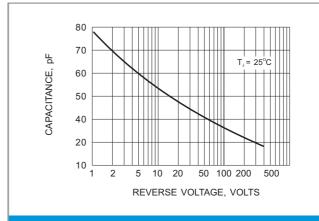


Fig.5- TYPICAL JUNCTION CAPACITANCE

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## Part No\_packing code\_Version

ER1600CT\_T0\_00001

# For example:



Packing Code XX			Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code	
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number	
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number	
Bulk Packing (B/P)	В	13"	2				
Tube Packing (T/P)	Т	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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