



# ERT1602CT \ ERT1602FCT

## SUPERFAST RECOVERY RECTIFIERS

**Voltage**

**200 V**

**Current**

**16 A**

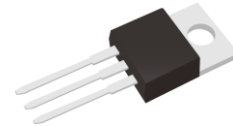
### Features

- Plastic package has Underwriters Laboratory. Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Hyperfast recovery time.
- Epitaxial construction.
- Low forward voltage, high current capability.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Lead free in compliance with EU RoHS 2011/65/EU directive.

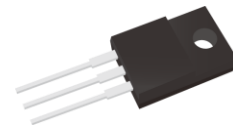
### Mechanical Data

- Case: Molded plastic, TO-220AB, ITO-220AB
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- TO-220AB Weight: 0.067 ounces, 1.89 grams.
- ITO-220AB Weight: 0.056 ounces, 1.6 grams.
- Marking: Part number

ERT1602CT TO-220AB



ERT1602FCT ITO-220AB



### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	200	V
Maximum rms voltage		$V_{RMS}$	140	V
Maximum dc blocking voltage		$V_R$	200	V
Maximum average forward rectified current	per device	$I_{F(AV)}$	16	A
	per diode		8	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		$I_{FSM}$	125	A
Maximum forward voltage at 8A per diode		$V_F$	0.95	V
Maximum dc reverse current at rated dc blocking voltage per diode		$I_R$	1	$\mu\text{A}$
Typical junction capacitance	(Note 1)	$C_J$	75	pF
Operating junction temperature range		$T_J$	-55 to +150	$^{\circ}\text{C}$
Storage temperature range		$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

Note:1. Measured at 1 MHz and Applied Reverse Voltage of 4 Volts.



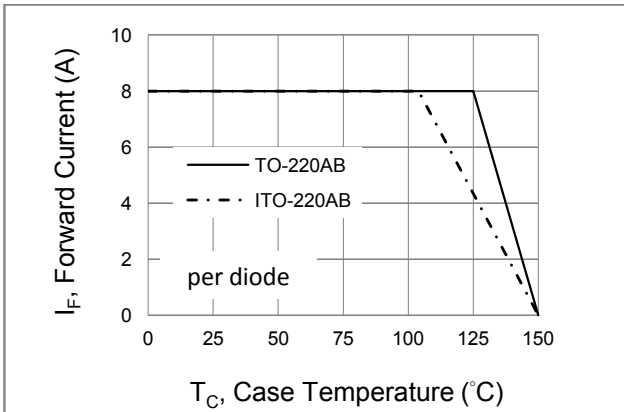
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Maximum Ratings ( $T_A=25^\circ\text{C}$  unless otherwise noted)

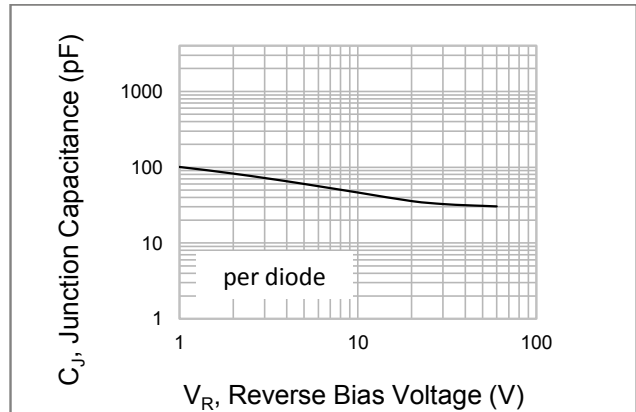
PARAMETER		SYMBOL	LIMIT	UNIT
Maximum reverse recovery time	(Note 2)	$T_{RR}$	25	ns
Typical thermal resistance per diode	TO-220AB (Note 3)	$R_{\theta JC}$	1.5	$^\circ\text{C/W}$
	ITO-220AB (Note 3)		5	

Note:2. Reverse Recovery Test Conditions :  $I_F=0.5\text{A}$ ,  $I_R=-1\text{A}$ , Recovery to  $-0.25\text{A}$

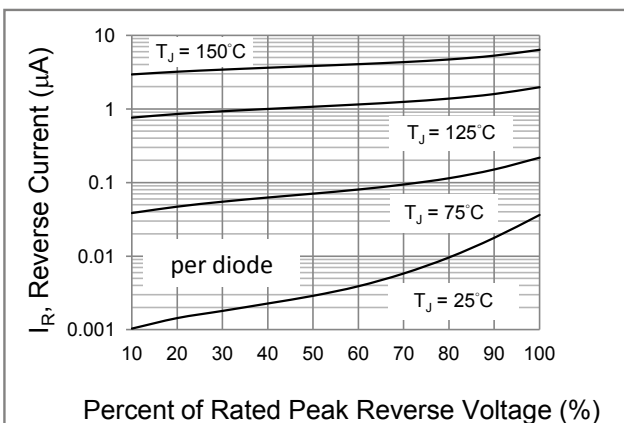
3. Device mounted on a infinite heatsink , then measured the center of the marking side.



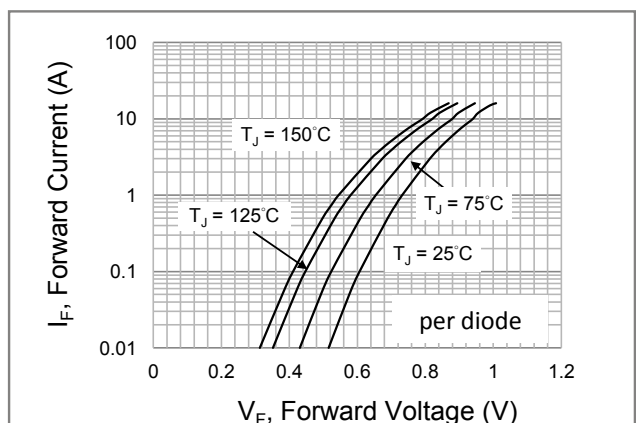
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**





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### Part No\_packing code\_Version

ERT1602CT\_T0\_00001

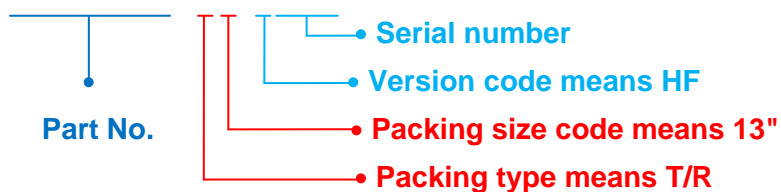
ERT1602CT\_T0\_10001

ERT1602FCT\_T0\_00001

ERT1602FCT\_T0\_10001

### For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	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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