



# ERT1602CT \ ERT1602FCT

## SUPERFAST RECOVERY RECTIFIERS

**Voltage**

**200 V**

**Current**

**16 A**

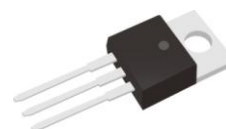
### Features

- 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.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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.



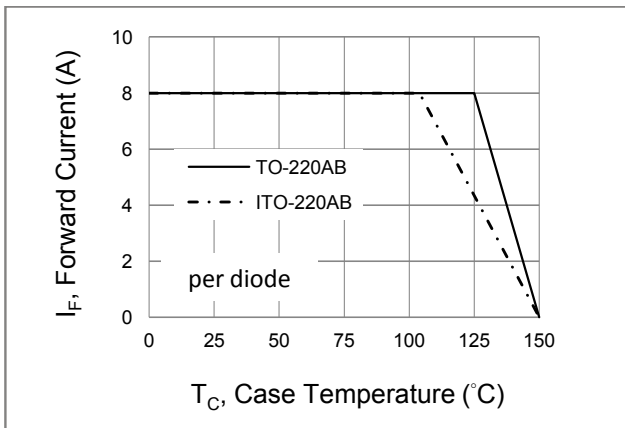
# ERT1602CT \ ERT1602FCT

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

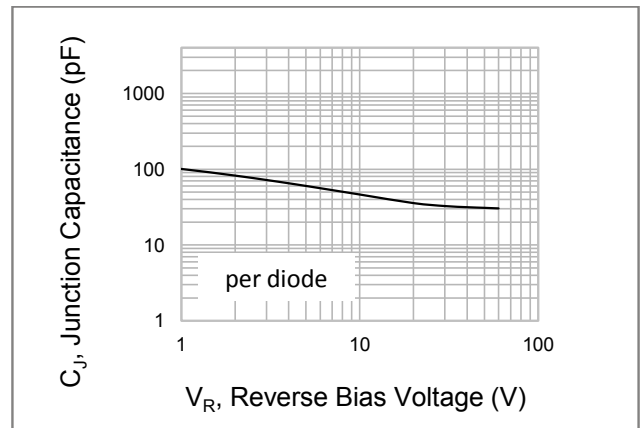
PARAMETER		SYMBOL	LIMIT	UNIT
Maximum reverse recovery time	(Note 2)	$T_{RR}$	25	ns
Typical thermal resistance per diode	TO-220AB (Note 3)	$R_{\theta JC}$	1.5	$^{\circ}\text{C/W}$
	ITO-220AB (Note 3)		5	

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

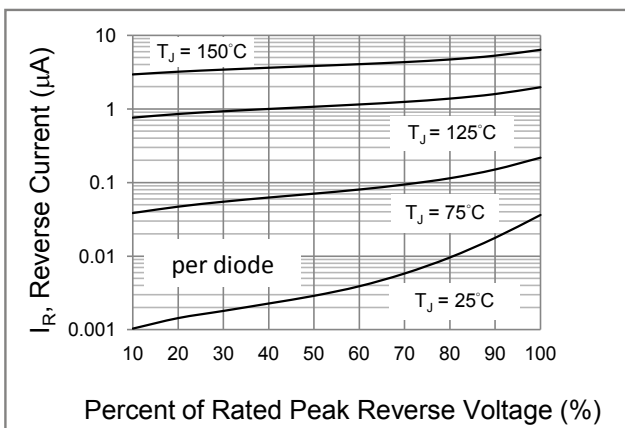
3. Device mounted on a infinite heatsink , then measured the center of the marking side.



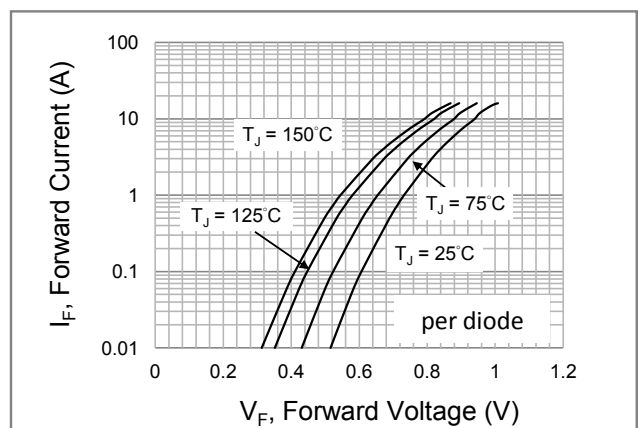
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



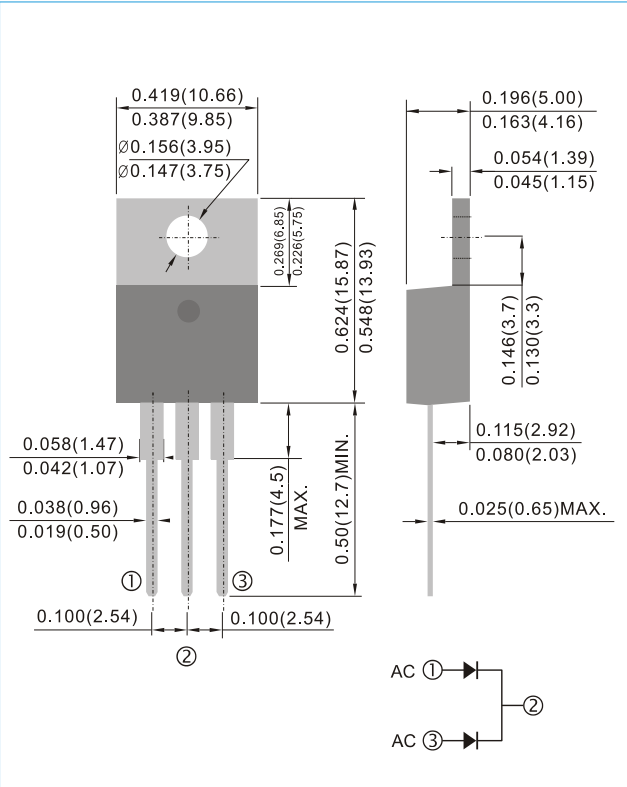
**Fig.4 Typical Forward Characteristics**



# ERT1602CT \ ERT1602FCT

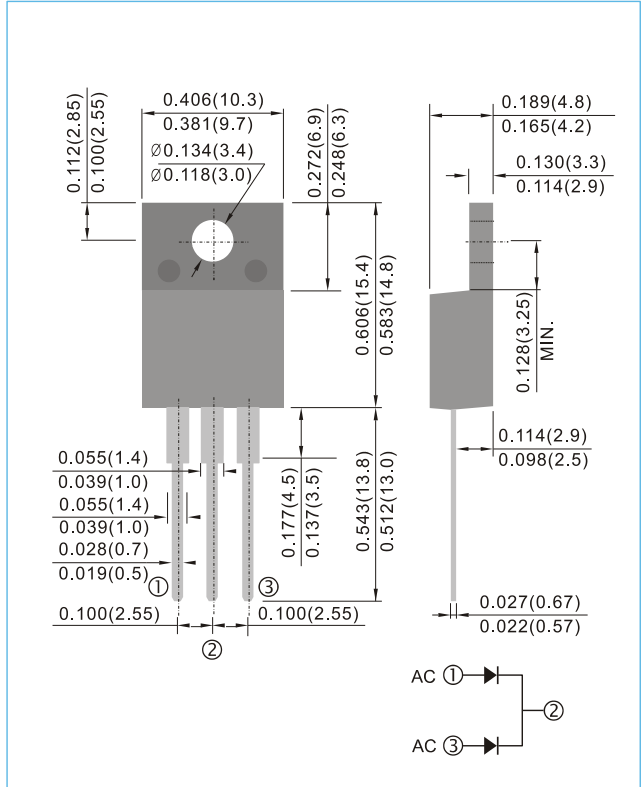
## TO-220AB

Unit : inch(mm)



## ITO-220AB

Unit : inch(mm)





## ERT1602CT \ ERT1602FCT

### Part No\_packing code\_Version

ERT1602CT\_T0\_00001

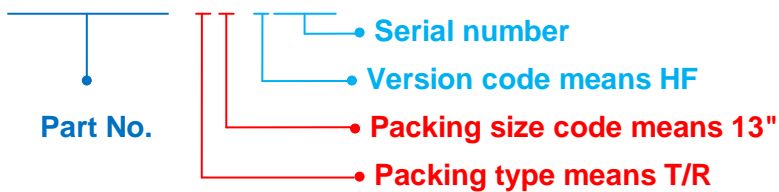
ERT1602CT\_T0\_10001

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			



## ERT1602CT \ ERT1602FCT

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.