



ER3002PT / ER3004PT

ISOLATION SUPERFAST RECOVERY RECTIFIER

VOLTAGE 200 to 400 Volts **CURRENT** 30 Amperes

TO-247AD / TO-3P

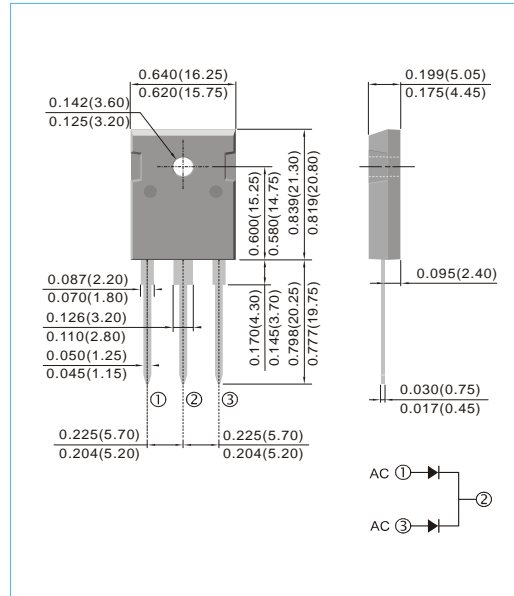
Unit : inch(mm)

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.
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: TO-3P Molded plastic
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.2245 ounces, 6.367 grams.



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	ER3002PT	ER3004PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	V
Maximum RMS Voltage	V_{RMS}	140	280	V
Maximum DC Blocking Voltage	V_{DC}	200	400	V
Maximum Average Forward Current	$I_{F(AV)}$	30		A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300		A
Maximum Forward Voltage at 15A	V_F	0.95	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1 50		μA
		$T_J=25^\circ C$ $T_J=125^\circ C$		
Maximum Reverse Recovery Time (Notes 2)	t_{rr}	35		ns
Typical Junction Capacitance (Notes 1)	C_J	140		pF
Typical Thermal Resistance (Notes 3)	$R_{\theta JC}$	2		$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150		$^\circ C$

NOTES :

1. Measured at 1MHz and applied reverse voltage of 4.0 Volts.
2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, Recover to 0.25A.
3. Infinite heatsink.



ER3002PT / ER3004PT

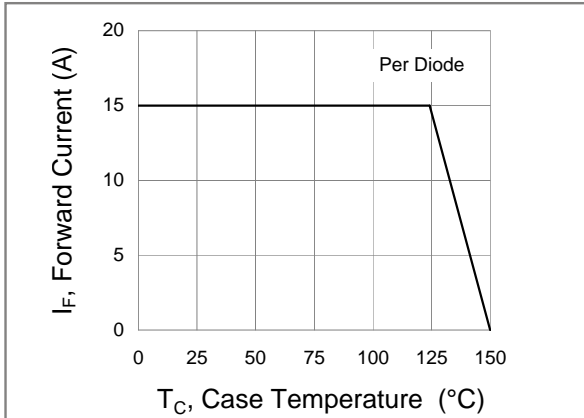


Fig.1 Forward Current Derating Curve

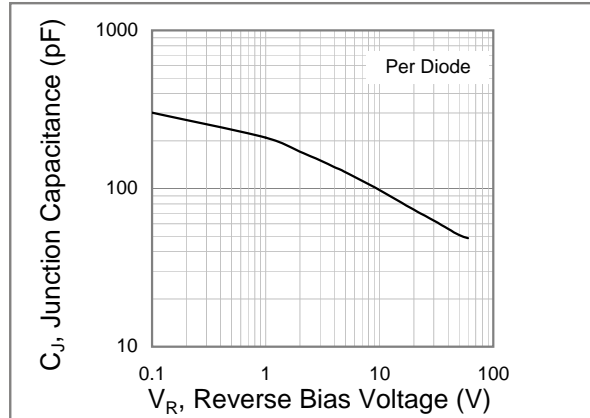


Fig.2 Typical Junction Capacitance

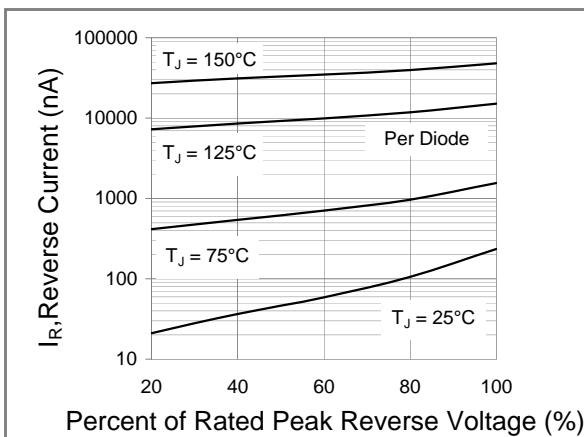


Fig.3 ER3002PT Typical Reverse Characteristics

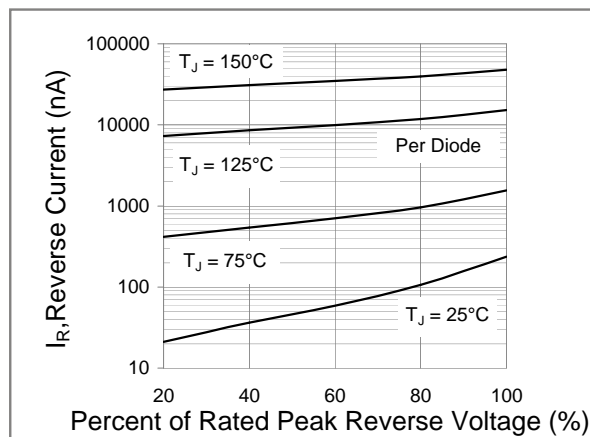


Fig.4 ER3004PT Typical Reverse Characteristics

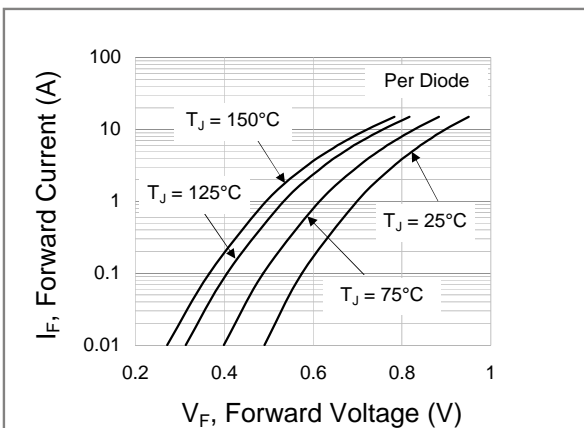


Fig.5 ER3002PT Typical Forward Characteristics

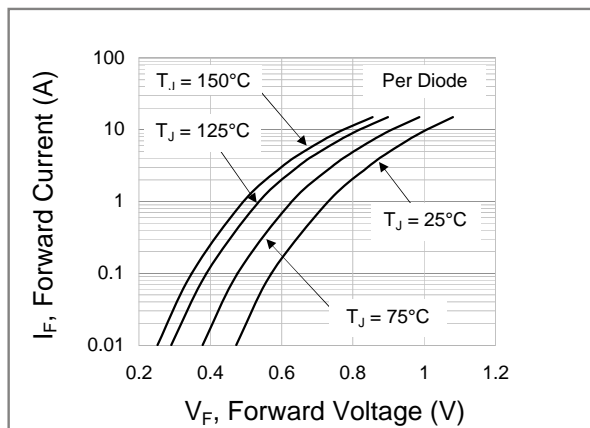


Fig.6 ER3004PT Typical Forward Characteristics



ER3002PT / ER3004PT

Part No_packing code_Version

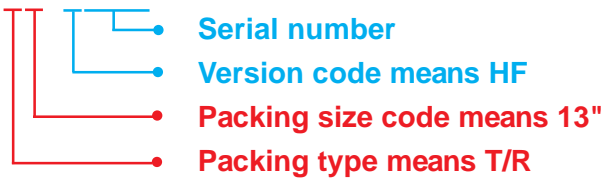
ER3002PT_T0_00001

ER3002PT_T0_10001

For example :

RB500V-40_R2_00001

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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			



ER3002PT / ER3004PT

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.