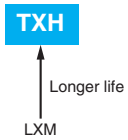
TXH Series

- Endurance with ripple current : 10,000 hours at 105℃
- Non solvent resistant type
- RoHS2 Compliant

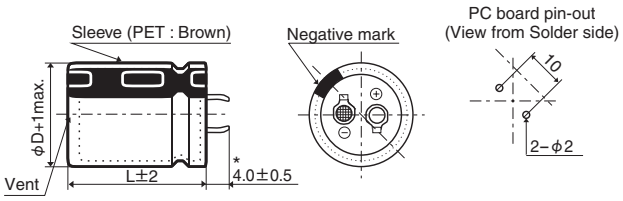


◆SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-25 to +105℃			
Rated Voltage Range	200 to 450Vdc			
Capacitance Tolerance	±20% (M)			(at 20℃, 120Hz)
Leakage Current	I≦3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)			(at 20℃ after 5 minutes)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	200 to 400V	450V	
	tan δ (Max.)	0.15	0.20	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	200 to 400V	450V	
	Z (-25℃)/Z (+20℃)	4	8	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours at 105℃.			
	Capacitance change	≦±20% of the initial value		
	D.F. (tan δ)	≦200% of the initial specified value		
	Leakage current	≦The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.			
	Capacitance change	≦±15% of the initial value		
	D.F. (tan δ)	≦150% of the initial specified value		
	Leakage current	≦The initial specified value		

◆DIMENSIONS [mm]

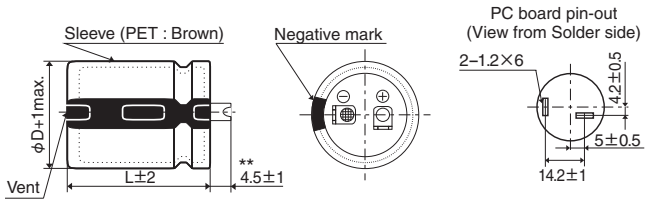
●Terminal Code : VS (φ30 to φ40) : Standard



*φD=40mm : 3.5±0.5mm

The standard design has no plastic disc.

●Terminal Code : LI (φ35, φ40)



**φD=40mm : 4.0±1

◆PART NUMBERING SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E	T	X	H				V	S	N				M				S

- 18 : Supplement code
- 15 16 17 : Size code
- 14 : Capacitance tolerance code
- 11 12 13 : Capacitance code (ex. 470μF:471, 1,000μF:102)
- 10 : Dummy terminal code
- 8 9 : Terminal code (VS, LI)
- 5 6 7 : Voltage code (ex. 200V:201 , 450V:451)
- 4 : Series code
- 1 : Category

Please refer to "Product code guide (snap-in type)"

TXH Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105℃, 120Hz)	Part No.
200	560	30 × 30	0.15	1.50	ETXH201VSN561MR30S
	680	30 × 35	0.15	1.70	ETXH201VSN681MR35S
	820	30 × 40	0.15	2.00	ETXH201VSN821MR40S
	820	35 × 30	0.15	2.00	ETXH201VSN821MA30S
	1,000	30 × 45	0.15	2.20	ETXH201VSN102MR45S
	1,000	35 × 35	0.15	2.20	ETXH201VSN102MA35S
	1,000	40 × 30	0.15	2.17	ETXH201VSN102MB30S
	1,200	35 × 40	0.15	2.40	ETXH201VSN122MA40S
	1,200	40 × 35	0.15	2.45	ETXH201VSN122MB35S
	1,500	35 × 50	0.15	2.81	ETXH201VSN152MA50S
	1,500	40 × 40	0.15	2.79	ETXH201VSN152MB40S
	1,800	40 × 50	0.15	3.24	ETXH201VSN182MB50S
250	390	30 × 30	0.15	1.30	ETXH251VSN391MR30S
	470	30 × 35	0.15	1.42	ETXH251VSN471MR35S
	560	35 × 30	0.15	1.58	ETXH251VSN561MA30S
	680	30 × 45	0.15	1.80	ETXH251VSN681MR45S
	680	35 × 35	0.15	1.76	ETXH251VSN681MA35S
	820	30 × 50	0.15	2.03	ETXH251VSN821MR50S
	820	35 × 40	0.15	2.01	ETXH251VSN821MA40S
	820	40 × 30	0.15	1.96	ETXH251VSN821MB30S
	1,000	35 × 45	0.15	2.30	ETXH251VSN102MA45S
	1,000	40 × 35	0.15	2.27	ETXH251VSN102MB35S
	1,200	35 × 50	0.15	2.55	ETXH251VSN122MA50S
	1,200	40 × 40	0.15	2.53	ETXH251VSN122MB40S
	1,500	40 × 50	0.15	2.96	ETXH251VSN152MB50S
	1,800	40 × 60	0.15	3.39	ETXH251VSN182MB60S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105℃, 120Hz)	Part No.
400	220	30 × 35	0.15	1.00	ETXH401VSN221MR35S
	270	30 × 40	0.15	1.15	ETXH401VSN271MR40S
	270	35 × 30	0.15	1.13	ETXH401VSN271MA30S
	330	30 × 45	0.15	1.29	ETXH401VSN331MR45S
	330	35 × 35	0.15	1.26	ETXH401VSN331MA35S
	330	40 × 30	0.15	1.28	ETXH401VSN331MB30S
	390	30 × 50	0.15	1.44	ETXH401VSN391MR50S
	390	35 × 40	0.15	1.43	ETXH401VSN391MA40S
	470	35 × 45	0.15	1.60	ETXH401VSN471MA45S
	470	40 × 35	0.15	1.58	ETXH401VSN471MB35S
	560	35 × 50	0.15	1.79	ETXH401VSN561MA50S
	560	40 × 40	0.15	1.78	ETXH401VSN561MB40S
	680	40 × 50	0.15	2.05	ETXH401VSN681MB50S
	820	40 × 60	0.15	2.36	ETXH401VSN821MB60S
450	220	30 × 40	0.20	1.04	ETXH451VSN221MR40S
	220	35 × 30	0.20	1.02	ETXH451VSN221MA30S
	270	30 × 45	0.20	1.19	ETXH451VSN271MR45S
	270	35 × 35	0.20	1.16	ETXH451VSN271MA35S
	330	30 × 50	0.20	1.33	ETXH451VSN331MR50S
	330	35 × 40	0.20	1.32	ETXH451VSN331MA40S
	390	35 × 45	0.20	1.48	ETXH451VSN391MA45S
	470	35 × 50	0.20	1.64	ETXH451VSN471MA50S
	560	40 × 60	0.20	1.98	ETXH451VSN561MB60S

◆RATED RIPPLE CURRENT MULTIPLIERS

❶Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
200, 250V_{dc}	0.81	1.00	1.17	1.32	1.45	1.50
400, 450V_{dc}	0.77	1.00	1.16	1.30	1.41	1.43

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

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The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

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