

# TXH Series

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

TXH

Longer life  
LXM

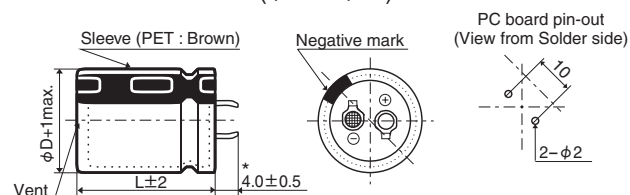


## SPECIFICATIONS

| Items                                                        | Characteristics                                                                                                                                                                                                                                                                       |                                      |      |                 |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------|-----------------|
| Category                                                     | -25 to +105℃                                                                                                                                                                                                                                                                          |                                      |      |                 |
| Temperature Range                                            |                                                                                                                                                                                                                                                                                       |                                      |      |                 |
| Rated Voltage Range                                          | 200 to 450V <sub>dc</sub>                                                                                                                                                                                                                                                             |                                      |      |                 |
| Capacitance Tolerance                                        | ± 20% (M) (at 20℃, 120Hz)                                                                                                                                                                                                                                                             |                                      |      |                 |
| Leakage Current                                              | I ≤ 3√CV<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 5 minutes)                                                                                                                                                        |                                      |      |                 |
| Dissipation Factor<br>(tan δ )                               | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 200 to 400V                          | 450V | (at 20℃, 120Hz) |
|                                                              | tan δ (Max.)                                                                                                                                                                                                                                                                          | 0.15                                 | 0.20 |                 |
| Low Temperature<br>Characteristics<br>(Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 200 to 400V                          | 450V | (at 120Hz)      |
|                                                              | Z (-25℃)/Z (+20℃)                                                                                                                                                                                                                                                                     | 4                                    | 8    |                 |
| 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]

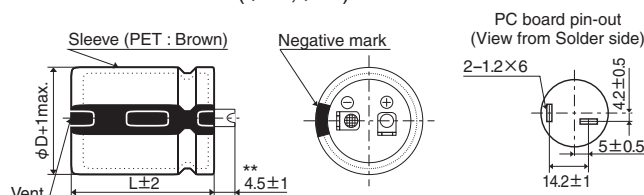
- Terminal Code : VS (φ30 to φ40) : Standard



\* φD=40mm : 3.5±0.5mm

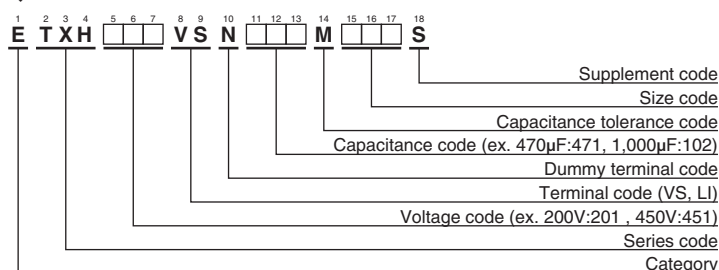
The standard design has no plastic disc.

- Terminal Code : LI (φ35, φ40)



\*\* φD=40mm : 4.0±1

## PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(Arms/<br>105°C, 120Hz) | Part No.           | WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(Arms/<br>105°C, 120Hz) | Part No.           |
|--------------------------|-------------|-----------------------|-------|----------------------------------------------------|--------------------|--------------------------|-------------|-----------------------|-------|----------------------------------------------------|--------------------|
| 200                      | 560         | 30 × 30               | 0.15  | 1.50                                               | ETXH201VSN561MR30S | 400                      | 220         | 30 × 35               | 0.15  | 1.00                                               | ETXH401VSN221MR35S |
|                          | 680         | 30 × 35               | 0.15  | 1.70                                               | ETXH201VSN681MR35S |                          | 270         | 30 × 40               | 0.15  | 1.15                                               | ETXH401VSN271MR40S |
|                          | 820         | 30 × 40               | 0.15  | 2.00                                               | ETXH201VSN821MR40S |                          | 270         | 35 × 30               | 0.15  | 1.13                                               | ETXH401VSN271MA30S |
|                          | 820         | 35 × 30               | 0.15  | 2.00                                               | ETXH201VSN821MA30S |                          | 330         | 30 × 45               | 0.15  | 1.29                                               | ETXH401VSN331MR45S |
|                          | 1,000       | 30 × 45               | 0.15  | 2.20                                               | ETXH201VSN102MR45S |                          | 330         | 35 × 35               | 0.15  | 1.26                                               | ETXH401VSN331MA35S |
|                          | 1,000       | 35 × 35               | 0.15  | 2.20                                               | ETXH201VSN102MA35S |                          | 330         | 40 × 30               | 0.15  | 1.28                                               | ETXH401VSN331MB30S |
|                          | 1,000       | 40 × 30               | 0.15  | 2.17                                               | ETXH201VSN102MB30S |                          | 390         | 30 × 50               | 0.15  | 1.44                                               | ETXH401VSN391MR50S |
|                          | 1,200       | 35 × 40               | 0.15  | 2.40                                               | ETXH201VSN122MA40S |                          | 390         | 35 × 40               | 0.15  | 1.43                                               | ETXH401VSN391MA40S |
|                          | 1,200       | 40 × 35               | 0.15  | 2.45                                               | ETXH201VSN122MB35S |                          | 470         | 35 × 45               | 0.15  | 1.60                                               | ETXH401VSN471MA45S |
|                          | 1,500       | 35 × 50               | 0.15  | 2.81                                               | ETXH201VSN152MA50S |                          | 470         | 40 × 35               | 0.15  | 1.58                                               | ETXH401VSN471MB35S |
|                          | 1,500       | 40 × 40               | 0.15  | 2.79                                               | ETXH201VSN152MB40S |                          | 560         | 35 × 50               | 0.15  | 1.79                                               | ETXH401VSN561MA50S |
|                          | 1,800       | 40 × 50               | 0.15  | 3.24                                               | ETXH201VSN182MB50S |                          | 560         | 40 × 40               | 0.15  | 1.78                                               | ETXH401VSN561MB40S |
| 250                      | 390         | 30 × 30               | 0.15  | 1.30                                               | ETXH251VSN391MR30S | 450                      | 680         | 40 × 50               | 0.15  | 2.05                                               | ETXH401VSN681MB50S |
|                          | 470         | 30 × 35               | 0.15  | 1.42                                               | ETXH251VSN471MR35S |                          | 820         | 40 × 60               | 0.15  | 2.36                                               | ETXH401VSN821MB60S |
|                          | 560         | 35 × 30               | 0.15  | 1.58                                               | ETXH251VSN561MA30S |                          | 220         | 30 × 40               | 0.20  | 1.04                                               | ETXH451VSN221MR40S |
|                          | 680         | 30 × 45               | 0.15  | 1.80                                               | ETXH251VSN681MR45S |                          | 220         | 35 × 30               | 0.20  | 1.02                                               | ETXH451VSN221MA30S |
|                          | 680         | 35 × 35               | 0.15  | 1.76                                               | ETXH251VSN681MA35S |                          | 270         | 30 × 45               | 0.20  | 1.19                                               | ETXH451VSN271MR45S |
|                          | 820         | 30 × 50               | 0.15  | 2.03                                               | ETXH251VSN821MR50S |                          | 270         | 35 × 35               | 0.20  | 1.16                                               | ETXH451VSN271MA35S |
|                          | 820         | 35 × 40               | 0.15  | 2.01                                               | ETXH251VSN821MA40S |                          | 330         | 30 × 50               | 0.20  | 1.33                                               | ETXH451VSN331MR50S |
|                          | 820         | 40 × 30               | 0.15  | 1.96                                               | ETXH251VSN821MB30S |                          | 330         | 35 × 40               | 0.20  | 1.32                                               | ETXH451VSN331MA40S |
|                          | 1,000       | 35 × 45               | 0.15  | 2.30                                               | ETXH251VSN102MA45S |                          | 390         | 35 × 45               | 0.20  | 1.48                                               | ETXH451VSN391MA45S |
|                          | 1,000       | 40 × 35               | 0.15  | 2.27                                               | ETXH251VSN102MB35S |                          | 470         | 35 × 50               | 0.20  | 1.64                                               | ETXH451VSN471MA50S |
|                          | 1,200       | 35 × 50               | 0.15  | 2.55                                               | ETXH251VSN122MA50S |                          | 560         | 40 × 60               | 0.20  | 1.98                                               | ETXH451VSN561MB60S |
|                          | 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 |                          |             |                       |       |                                                    |                    |

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Frequency(Hz)           | 50   | 120  | 300  | 1k   | 10k  | 50k  |
|-------------------------|------|------|------|------|------|------|
| 200, 250V <sub>dc</sub> | 0.81 | 1.00 | 1.17 | 1.32 | 1.45 | 1.50 |
| 400, 450V <sub>dc</sub> | 0.77 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## United Chemi-Con (UCC):

|                                           |                                           |                                           |                                           |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| <a href="#"><u>ETXH251VSN681MA35S</u></a> | <a href="#"><u>ETXH451VSN221MA30S</u></a> | <a href="#"><u>ETXH451VSN331MA40S</u></a> | <a href="#"><u>ETXH401VSN271MR40S</u></a> |
| <a href="#"><u>ETXH251VSN122MB40S</u></a> | <a href="#"><u>ETXH251VSN471MR35S</u></a> | <a href="#"><u>ETXH251VSN102MA45S</u></a> | <a href="#"><u>ETXH401VSN391MA40S</u></a> |
| <a href="#"><u>ETXH401VSN331MA35S</u></a> | <a href="#"><u>ETXH251VSN821MA40S</u></a> | <a href="#"><u>ETXH401VSN391MR50S</u></a> | <a href="#"><u>ETXH451VSN391MA45S</u></a> |
| <a href="#"><u>ETXH201VSN122MB35S</u></a> | <a href="#"><u>ETXH401VSN471MB35S</u></a> | <a href="#"><u>ETXH401VSN561MA50S</u></a> | <a href="#"><u>ETXH201VSN182MB50S</u></a> |
| <a href="#"><u>ETXH201VSN152MA50S</u></a> | <a href="#"><u>ETXH201VSN821MR40S</u></a> | <a href="#"><u>ETXH401VSN471MA45S</u></a> | <a href="#"><u>ETXH251VSN122MA50S</u></a> |
| <a href="#"><u>ETXH401VSN271MA30S</u></a> | <a href="#"><u>ETXH401VSN681MB50S</u></a> | <a href="#"><u>ETXH251VSN102MB35S</u></a> | <a href="#"><u>ETXH451VSN471MA50S</u></a> |
| <a href="#"><u>ETXH251VSN821MR50S</u></a> | <a href="#"><u>ETXH451VSN561MB60S</u></a> | <a href="#"><u>ETXH251VSN182MB60S</u></a> | <a href="#"><u>ETXH251VSN152MB50S</u></a> |
| <a href="#"><u>ETXH401VSN331MR45S</u></a> | <a href="#"><u>ETXH201VSN102MA35S</u></a> | <a href="#"><u>ETXH401VSN331MB30S</u></a> | <a href="#"><u>ETXH451VSN331MR50S</u></a> |
| <a href="#"><u>ETXH251VSN681MR45S</u></a> | <a href="#"><u>ETXH251VSN391MR30S</u></a> | <a href="#"><u>ETXH251VSN561MA30S</u></a> | <a href="#"><u>ETXH451VSN221MR40S</u></a> |
| <a href="#"><u>ETXH401VSN821MB60S</u></a> | <a href="#"><u>ETXH201VSN102MR45S</u></a> | <a href="#"><u>ETXH401VSN561MB40S</u></a> | <a href="#"><u>ETXH251VSN821MB30S</u></a> |
| <a href="#"><u>ETXH201VSN152MB40S</u></a> | <a href="#"><u>ETXH201VSN102MB30S</u></a> | <a href="#"><u>ETXH451VSN271MA35S</u></a> | <a href="#"><u>ETXH201VSN122MA40S</u></a> |
| <a href="#"><u>ETXH401VSN221MR35S</u></a> | <a href="#"><u>ETXH201VSN821MA30S</u></a> | <a href="#"><u>ETXH451VSN271MR45S</u></a> | <a href="#"><u>ETXH201VSN561MR30S</u></a> |
| <a href="#"><u>ETXH201VSN681MR35S</u></a> |                                           |                                           |                                           |

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9