

### Snap-in Type

Series: **HD** Type: **TS**

**Discontinued**

(Last purchasing order: 31/Mar/2015)  
(Last shipment : 30/Jun/2015)



### ■ Features

- Endurance : 105 °C 3000 h
- 30 % smaller than series TS-HC
- RoHS directive compliant

### ■ Specifications

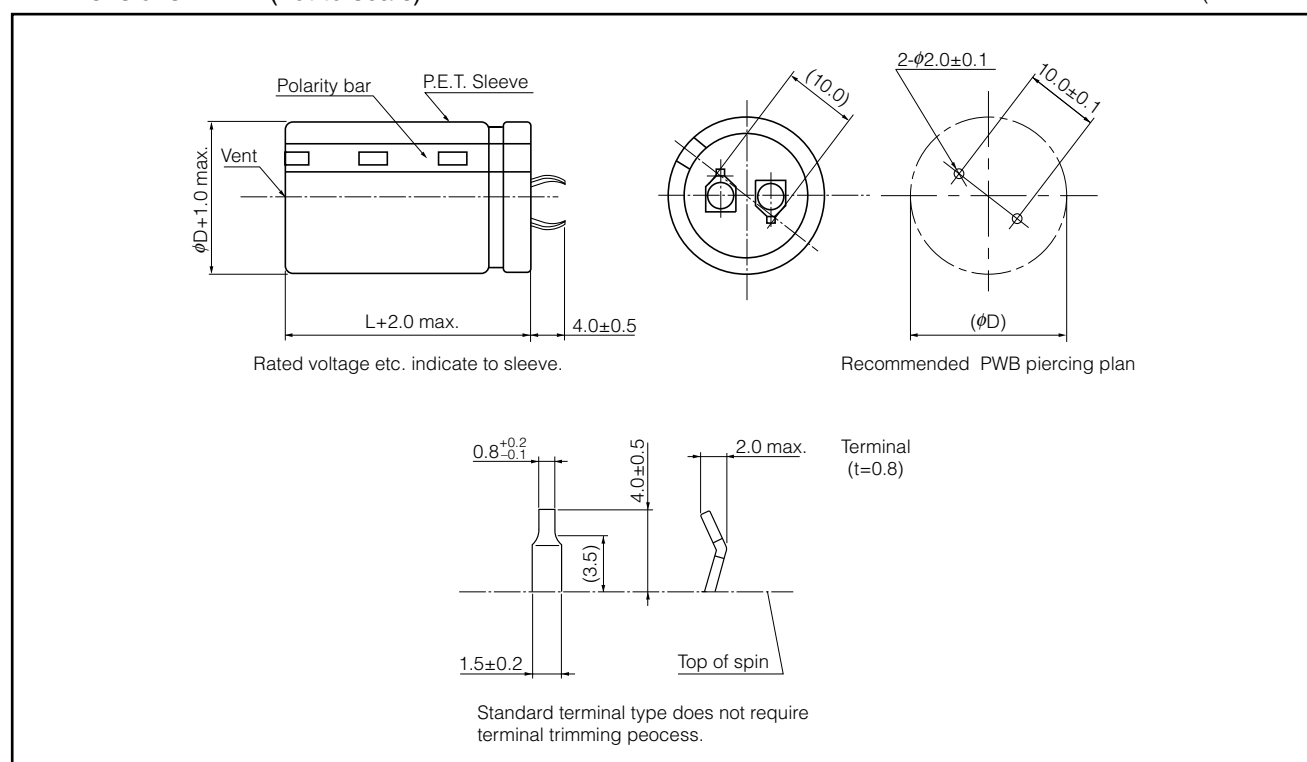
|                       |                                                                                                                                                                                                |                                    |  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--|
| Category Temp. Range  | -25 °C to +105 °C                                                                                                                                                                              |                                    |  |
| Rated W.V. Range      | 400 V.DC to 450 V.DC                                                                                                                                                                           |                                    |  |
| Nominal Cap. Range    | 120 µF to 680 µF                                                                                                                                                                               |                                    |  |
| Capacitance Tolerance | ±20 % (120 Hz/+20 °C)                                                                                                                                                                          |                                    |  |
| DC Leakage Current    | 3√CV (µA) max. After 5 minutes application of rated working voltage at +20 °C.<br>C : Capacitance (µF) V: W.V. (V.DC)                                                                          |                                    |  |
| tan δ                 | Please see the attached standard products list                                                                                                                                                 |                                    |  |
| Endurance             | After 3000 hours application of DC voltage with specified ripple current (≤ rated DC working voltage) at +105 °C, the capacitors shall meet the following limits.                              |                                    |  |
|                       | Capacitance change                                                                                                                                                                             | ≤ ±20 % of initial measured value  |  |
|                       | tan δ                                                                                                                                                                                          | ≤ 200 % of initial specified value |  |
|                       | DC leakage current                                                                                                                                                                             | ≤ initial specified value          |  |
| Shelf Life            | After storage for 1000 hours at +105 °C±20 °C within no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment) |                                    |  |

### ■ Frequency correction factor for ripple current

|                   | Frequency (Hz) |      |      |      |      |      |         |
|-------------------|----------------|------|------|------|------|------|---------|
|                   | 50             | 60   | 100  | 120  | 500  | 1 k  | 10 k to |
| Correction factor | 0.75           | 0.80 | 0.95 | 1.00 | 1.20 | 1.25 | 1.40    |

### ■ Dimensions in mm (not to scale)

(Unit : mm)



Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

01 Sep. 2013

### Standard Products

**Discontinued**

Endurance : 105 °C 3000 h

| W.V.<br>(V. DC) | Cap.<br>(120 Hz)<br>(±20 %)<br>(μF) | Case size    |                | Part No.<br><br>PET sleeve<br>Terminal Length<br>4.0 mm<br>(Without Top Plate) | Specification                                            |                                       | Min. Packaging Q'ty<br><br>(pcs) |
|-----------------|-------------------------------------|--------------|----------------|--------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------|----------------------------------|
|                 |                                     | Dia.<br>(mm) | Length<br>(mm) |                                                                                | Ripple<br>Current<br>(120 Hz)<br>(+105 °C)<br>(A r.m.s.) | tan δ<br>(120 Hz)<br>(+20 °C)<br>max. |                                  |
| 400             | 120                                 | 22           | 25             | EETHD2G121HJ                                                                   | 0.75                                                     | 0.15                                  | 200                              |
|                 | 180                                 | 25           | 25             | EETHD2G181JJ                                                                   | 0.95                                                     | 0.15                                  | 200                              |
|                 | 220                                 | 22           | 35             | EETHD2G221HJ                                                                   | 1.10                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 30             | EETHD2G221JJ                                                                   | 1.10                                                     | 0.15                                  | 200                              |
|                 | 270                                 | 25           | 35             | EETHD2G271JJ                                                                   | 1.22                                                     | 0.15                                  | 200                              |
|                 |                                     | 30           | 25             | EETHD2G271KJ                                                                   | 1.22                                                     | 0.15                                  | 100                              |
|                 | 330                                 | 22           | 50             | EETHD2G331HJ                                                                   | 1.44                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 40             | EETHD2G331JJ                                                                   | 1.44                                                     | 0.15                                  | 200                              |
|                 |                                     | 35           | 25             | EETHD2G331LJ                                                                   | 1.44                                                     | 0.15                                  | 100                              |
|                 | 390                                 | 25           | 45             | EETHD2G391JJ                                                                   | 1.55                                                     | 0.15                                  | 200                              |
|                 |                                     | 35           | 25             | EETHD2G391LJ                                                                   | 1.55                                                     | 0.15                                  | 100                              |
|                 | 470                                 | 25           | 50             | EETHD2G471JJ                                                                   | 1.68                                                     | 0.15                                  | 200                              |
|                 |                                     | 30           | 35             | EETHD2G471KJ                                                                   | 1.68                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 30             | EETHD2G471LJ                                                                   | 1.68                                                     | 0.15                                  | 100                              |
|                 | 560                                 | 30           | 40             | EETHD2G561KJ                                                                   | 1.90                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 35             | EETHD2G561LJ                                                                   | 1.90                                                     | 0.15                                  | 100                              |
|                 | 680                                 | 30           | 50             | EETHD2G681KJ                                                                   | 2.12                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 40             | EETHD2G681LJ                                                                   | 2.12                                                     | 0.15                                  | 100                              |
| 420             | 120                                 | 22           | 25             | EETHD2S121HJ                                                                   | 0.74                                                     | 0.15                                  | 200                              |
|                 | 150                                 | 22           | 30             | EETHD2S151HJ                                                                   | 0.84                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 25             | EETHD2S151JJ                                                                   | 0.84                                                     | 0.15                                  | 200                              |
|                 | 180                                 | 22           | 35             | EETHD2S181HJ                                                                   | 0.91                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 30             | EETHD2S181JJ                                                                   | 0.91                                                     | 0.15                                  | 200                              |
|                 | 220                                 | 22           | 40             | EETHD2S221HJ                                                                   | 1.05                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 35             | EETHD2S221JJ                                                                   | 1.05                                                     | 0.15                                  | 200                              |
|                 | 270                                 | 22           | 50             | EETHD2S271HJ                                                                   | 1.20                                                     | 0.15                                  | 200                              |
|                 |                                     | 25           | 40             | EETHD2S271JJ                                                                   | 1.20                                                     | 0.15                                  | 200                              |
|                 |                                     | 30           | 30             | EETHD2S271KJ                                                                   | 1.20                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 25             | EETHD2S271LJ                                                                   | 1.20                                                     | 0.15                                  | 100                              |
|                 | 330                                 | 25           | 45             | EETHD2S331JJ                                                                   | 1.42                                                     | 0.15                                  | 200                              |
|                 |                                     | 30           | 35             | EETHD2S331KJ                                                                   | 1.42                                                     | 0.15                                  | 100                              |
|                 | 390                                 | 25           | 50             | EETHD2S391JJ                                                                   | 1.55                                                     | 0.15                                  | 200                              |
|                 |                                     | 30           | 40             | EETHD2S391KJ                                                                   | 1.55                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 30             | EETHD2S391LJ                                                                   | 1.55                                                     | 0.15                                  | 100                              |
|                 | 470                                 | 30           | 45             | EETHD2S471KJ                                                                   | 1.71                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 35             | EETHD2S471LJ                                                                   | 1.71                                                     | 0.15                                  | 100                              |
|                 | 560                                 | 30           | 50             | EETHD2S561KJ                                                                   | 1.90                                                     | 0.15                                  | 100                              |
|                 |                                     | 35           | 40             | EETHD2S561LJ                                                                   | 1.90                                                     | 0.15                                  | 100                              |
| 450             | 120                                 | 22           | 30             | EETHD2W121HJ                                                                   | 0.72                                                     | 0.20                                  | 200                              |
|                 |                                     | 25           | 25             | EETHD2W121JJ                                                                   | 0.72                                                     | 0.20                                  | 200                              |
|                 | 180                                 | 22           | 35             | EETHD2W181HJ                                                                   | 0.87                                                     | 0.20                                  | 200                              |
|                 |                                     | 25           | 30             | EETHD2W181JJ                                                                   | 0.87                                                     | 0.20                                  | 200                              |
|                 | 220                                 | 22           | 45             | EETHD2W221HJ                                                                   | 1.00                                                     | 0.20                                  | 200                              |
|                 |                                     | 25           | 35             | EETHD2W221JJ                                                                   | 1.00                                                     | 0.20                                  | 200                              |
|                 |                                     | 30           | 25             | EETHD2W221KJ                                                                   | 1.00                                                     | 0.20                                  | 100                              |
|                 | 270                                 | 22           | 50             | EETHD2W271HJ                                                                   | 1.19                                                     | 0.20                                  | 200                              |
|                 |                                     | 25           | 40             | EETHD2W271JJ                                                                   | 1.19                                                     | 0.20                                  | 200                              |
|                 |                                     | 30           | 30             | EETHD2W271KJ                                                                   | 1.19                                                     | 0.20                                  | 100                              |
|                 |                                     | 35           | 25             | EETHD2W271LJ                                                                   | 1.19                                                     | 0.20                                  | 100                              |
|                 | 330                                 | 25           | 45             | EETHD2W331JJ                                                                   | 1.38                                                     | 0.20                                  | 200                              |
|                 |                                     | 30           | 35             | EETHD2W331KJ                                                                   | 1.38                                                     | 0.20                                  | 100                              |
|                 | 390                                 | 30           | 40             | EETHD2W391KJ                                                                   | 1.55                                                     | 0.20                                  | 100                              |
|                 |                                     | 35           | 30             | EETHD2W391LJ                                                                   | 1.55                                                     | 0.20                                  | 100                              |
|                 | 470                                 | 30           | 45             | EETHD2W471KJ                                                                   | 1.74                                                     | 0.20                                  | 100                              |
|                 |                                     | 35           | 35             | EETHD2W471LJ                                                                   | 1.74                                                     | 0.20                                  | 100                              |
|                 | 560                                 | 30           | 50             | EETHD2W561KJ                                                                   | 1.90                                                     | 0.20                                  | 100                              |
|                 |                                     | 35           | 40             | EETHD2W561LJ                                                                   | 1.90                                                     | 0.20                                  | 100                              |

# Mouser Electronics

Authorized Distributor

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

## Panasonic:

[EET-HD2S331KJ](#) [EET-HD2W271HJ](#) [EET-HD2G681KJ](#) [EET-HD2G271KJ](#) [EET-HD2W471KJ](#) [EET-HD2G471KJ](#)  
[EET-HD2G121HJ](#) [EET-HD2G181JJ](#) [EET-HD2G221HJ](#) [EET-HD2G221JJ](#) [EET-HD2G271JJ](#) [EET-HD2G331HJ](#) [EET-](#)  
[HD2G331JJ](#) [EET-HD2G331LJ](#) [EET-HD2G391JJ](#) [EET-HD2G391LJ](#) [EET-HD2G471JJ](#) [EET-HD2G471LJ](#) [EET-](#)  
[HD2G561KJ](#) [EET-HD2G561LJ](#) [EET-HD2G681LJ](#) [EET-HD2S121HJ](#) [EET-HD2S151HJ](#) [EET-HD2S151JJ](#) [EET-](#)  
[HD2S181HJ](#) [EET-HD2S181JJ](#) [EET-HD2S221HJ](#) [EET-HD2S221JJ](#) [EET-HD2S271HJ](#) [EET-HD2S271JJ](#) [EET-](#)  
[HD2S271KJ](#) [EET-HD2S271LJ](#) [EET-HD2S331JJ](#) [EET-HD2S391JJ](#) [EET-HD2S391KJ](#) [EET-HD2S391LJ](#) [EET-](#)  
[HD2S471KJ](#) [EET-HD2S471LJ](#) [EET-HD2S561KJ](#) [EET-HD2S561LJ](#) [EET-HD2W121HJ](#) [EET-HD2W121JJ](#) [EET-](#)  
[HD2W181HJ](#) [EET-HD2W181JJ](#) [EET-HD2W221HJ](#) [EET-HD2W221JJ](#) [EET-HD2W221KJ](#) [EET-HD2W271JJ](#) [EET-](#)  
[HD2W271KJ](#) [EET-HD2W271LJ](#) [EET-HD2W331JJ](#) [EET-HD2W331KJ](#) [EET-HD2W391KJ](#) [EET-HD2W391LJ](#) [EET-](#)  
[HD2W471LJ](#) [EET-HD2W561KJ](#) [EET-HD2W561LJ](#)