

## Metallized Polypropylene Film Capacitor

Type : **ECWH(V)**

Non-inductive construction using metallized polypropylene film with flame retardant epoxy resin coating.



### Features

- Low-loss
- Excellent electrical characteristics
- Flame retardant epoxy resin coating
- RoHS directive compliant

### Recommended applications

- High frequency high voltage circuit  
(General resonance, inverter circuit)

### Explanation of part number

| 1            | 2            | 3                         | 4 | 5                                                                                                                                                                       | 6 | 7           | 8         | 9         | 10        | 11     | 12        |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
|--------------|--------------|---------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-----------|-----------|-----------|--------|-----------|----|-----------|---------------------------------------------------------------------------------|--|---|------|---|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|-----------|-------|----------|---|--------------|---|----------|
| E            | C            | W                         | H |                                                                                                                                                                         |   |             |           |           |           | V      |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| Product code |              | Dielectric & construction |   | Rated voltage                                                                                                                                                           |   | Capacitance |           | Cap. Tol. |           | Suffix | Suffix    |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
|              |              |                           |   | <table><tr><td>10</td><td>1000 V.DC</td></tr><tr><td>12</td><td>1250 V.DC</td></tr><tr><td>16</td><td>1600 V.DC</td></tr><tr><td>20</td><td>2000 V.DC</td></tr></table> |   | 10          | 1000 V.DC | 12        | 1250 V.DC | 16     | 1600 V.DC | 20 | 2000 V.DC | <table><tr><td>H</td><td>±3 %</td></tr><tr><td>J</td><td>±5 %</td></tr></table> |  | H | ±3 % | J | ±5 % | <table><tr><th>Code</th><th>Lead Form</th></tr><tr><td>Blank</td><td>Straight</td></tr><tr><td>B</td><td>Crimped lead</td></tr><tr><td>C</td><td>Cut lead</td></tr></table> |  | Code | Lead Form | Blank | Straight | B | Crimped lead | C | Cut lead |
| 10           | 1000 V.DC    |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| 12           | 1250 V.DC    |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| 16           | 1600 V.DC    |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| 20           | 2000 V.DC    |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| H            | ±3 %         |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| J            | ±5 %         |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| Code         | Lead Form    |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| Blank        | Straight     |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| B            | Crimped lead |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |
| C            | Cut lead     |                           |   |                                                                                                                                                                         |   |             |           |           |           |        |           |    |           |                                                                                 |  |   |      |   |      |                                                                                                                                                                             |  |      |           |       |          |   |              |   |          |

- Odd size taping

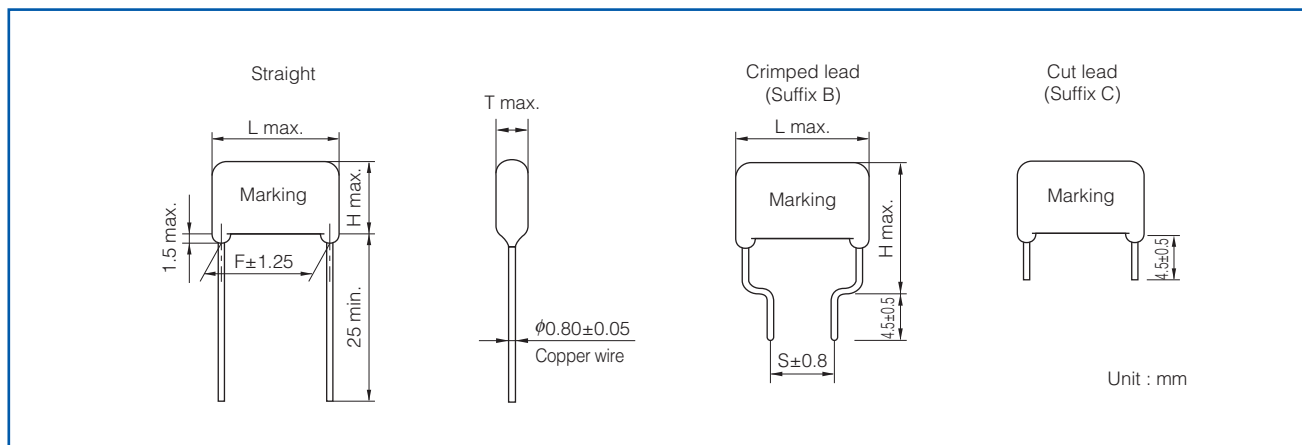
| 1            | 2        | 3                         | 4        | 5             | 6 | 7           | 8 | 9         | 10       | 11     | 12       |
|--------------|----------|---------------------------|----------|---------------|---|-------------|---|-----------|----------|--------|----------|
| <b>E</b>     | <b>C</b> | <b>W</b>                  | <b>H</b> |               |   |             |   |           | <b>R</b> |        | <b>V</b> |
| Product code |          | Dielectric & construction |          | Rated voltage |   | Capacitance |   | Cap. Tol. |          | Suffix | Suffix   |

### Specifications

|                                                                      |                                                                                                                                                 |                       |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Category temp. range<br>(Including temperature-rise on unit surface) | - 40 °C to +105 °C                                                                                                                              |                       |
| Rated voltage                                                        | 1000 V.DC, 1250 V.DC (1000 Vp-p)<br>1600 V.DC (1200 Vp-p), 2000 V.DC (1500 Vp-p)<br>(Derating of rated voltage by 1.25 %/°C at more than 85 °C) |                       |
| Capacitance range                                                    | 1000 V.DC                                                                                                                                       | 0.0075 μF to 0.10 μF  |
|                                                                      | 1250 V.DC                                                                                                                                       | 0.0036 μF to 0.10 μF  |
|                                                                      | 1600 V.DC                                                                                                                                       | 0.0013 μF to 0.056 μF |
|                                                                      | 2000 V.DC                                                                                                                                       | 0.001 μF to 0.015 μF  |
| Capacitance tolerance                                                | ±3 % (H), ±5 % (J)                                                                                                                              |                       |
| Dissipation factor (tan δ)                                           | tan δ ≤ 0.1 % (20 °C, 1 kHz)<br>tan δ ≤ 0.2 % (20 °C, 10 kHz)                                                                                   |                       |
| Withstand voltage                                                    | Between terminals : Rated volt. (V.DC) × 150 %, 60 s<br>Between terminals to enclosure : 1500 V.AC 60 s                                         |                       |
| Insulation resistance (IR)                                           | IR ≥ 30000 MΩ (20 °C, 500 V.DC, 60 s)                                                                                                           |                       |

\* In case of applying voltage in alternating current (50 Hz or 60 Hz sine wave) to a capacitor with DC rated voltage, please refer to the page of "Permissible voltage (R.M.S) in alternating current corresponding to DC rated voltage".

## Dimensions

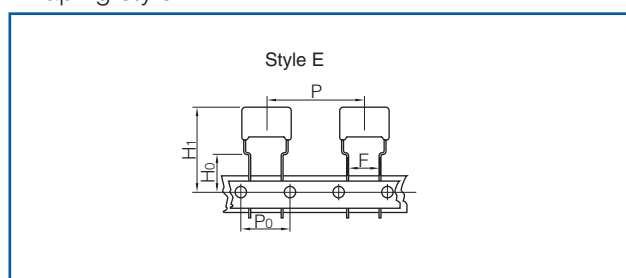


## Packaging specifications for bulk package

- Packing quantity : 100 pcs./bag

## Taping specifications for automatic insertion

- Taping style



\* Refer to the page of taping specifications.

- Taping style

| Type    | Rated voltage (V.DC) | Capacitance range (μF) | Taping style |    |   |   |   |   | Packing | suffix |
|---------|----------------------|------------------------|--------------|----|---|---|---|---|---------|--------|
|         |                      |                        | AD           | AS | B | C | D | E |         |        |
| ECWH(V) | 1000                 | 0.0075 to 0.10         |              |    |   |   |   | ○ | Ammo    | R( ) V |
|         | 1250                 | 0.0036 to 0.051        |              |    |   |   |   | ○ |         | R( ) V |
|         | 1600                 | 0.0013 to 0.020        |              |    |   |   |   | ○ |         | R( ) V |
|         | 2000                 | 0.0010 to 0.015        |              |    |   |   |   | ○ |         | R( ) V |

\* See the column "Rating · Dimensions · Quantity" for packing quantity

- Lead spacing

| Style | Lead spacing |
|-------|--------------|
| E     | 7.5 mm       |

## Rating · Dimensions · Quantity

● Rated voltage : 1000 V.DC, Capacitance tolerance :  $\pm 3\%$  (H),  $\pm 5\%$  (J)

| Part No.       | Cap.<br>( $\mu$ F) | Dimensions (mm) |        |          |              |          |              |          | Min. order Q'ty |                         |
|----------------|--------------------|-----------------|--------|----------|--------------|----------|--------------|----------|-----------------|-------------------------|
|                |                    | L max.          | T max. | H max.   |              | F        | S            | $\phi$ d | Taping          | Bulk                    |
|                |                    |                 |        | Straight | Crimped lead | Straight | Crimped lead |          | 7.5 mm          | Straight · Crimped lead |
|                |                    |                 |        |          |              |          |              |          |                 |                         |
| ECWH10752□V( ) | 0.0075             | 18.0            | 6.0    | 12.5     | 17.5         | 15.0     | 10.0         | 0.8      | 500             | 500                     |
| ECWH10822□V( ) | 0.0082             | 18.0            | 6.0    | 12.5     | 17.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10912□V( ) | 0.0091             | 18.0            | 6.0    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10103□V( ) | 0.010              | 18.0            | 6.5    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10113□V( ) | 0.011              | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10123□V( ) | 0.012              | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10133□V( ) | 0.013              | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10153□V( ) | 0.015              | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10163□V( ) | 0.016              | 18.0            | 7.5    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10183□V( ) | 0.018              | 18.0            | 7.5    | 14.5     | 19.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10203□V( ) | 0.020              | 18.0            | 8.0    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8      | 400             |                         |
| ECWH10223□V( ) | 0.022              | 18.0            | 8.5    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10243□V( ) | 0.024              | 18.0            | 8.5    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10273□V( ) | 0.027              | 18.0            | 9.0    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8      | 300             |                         |
| ECWH10303□V( ) | 0.030              | 18.0            | 9.5    | 16.5     | 21.5         | 15.0     | 10.0         | 0.8      |                 |                         |
| ECWH10333□V( ) | 0.033              | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8      | 400             |                         |
| ECWH10363□V( ) | 0.036              | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10393□V( ) | 0.039              | 23.0            | 8.0    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10433□V( ) | 0.043              | 23.0            | 8.5    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10473□V( ) | 0.047              | 23.0            | 8.5    | 17.0     | 22.0         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10513□V( ) | 0.051              | 23.0            | 9.0    | 17.5     | 22.5         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10563□V( ) | 0.056              | 23.0            | 9.5    | 17.5     | 22.5         | 20.0     | 15.0         | 0.8      | 300             |                         |
| ECWH10623□V( ) | 0.062              | 23.0            | 9.5    | 18.0     | 23.0         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10683□V( ) | 0.068              | 23.0            | 10.0   | 19.0     | 24.0         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10753□V( ) | 0.075              | 23.0            | 10.5   | 19.5     | 24.5         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10823□V( ) | 0.082              | 23.0            | 11.0   | 20.0     | 25.0         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10913□V( ) | 0.091              | 23.0            | 11.5   | 20.5     | 25.5         | 20.0     | 15.0         | 0.8      |                 |                         |
| ECWH10104□V( ) | 0.10               | 23.0            | 12.0   | 21.0     | 26.0         | 20.0     | 15.0         | 0.8      |                 |                         |

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 1250 V.DC, Capacitance tolerance :  $\pm 3\%$  (H),  $\pm 5\%$  (J)

| Part No.       | Cap.<br>(μF) | Dimensions (mm) |        |          |              |          |              |     | Min. order Q'ty |          |              |
|----------------|--------------|-----------------|--------|----------|--------------|----------|--------------|-----|-----------------|----------|--------------|
|                |              | L max.          | T max. | H max.   |              | F        | S            | ød  | Taping          | Bulk     |              |
|                |              |                 |        | Straight | Crimped lead | Straight | Crimped lead |     | 7.5 mm          | Straight | Crimped lead |
| ECWH12362□V( ) | 0.0036       | 18.0            | 6.0    | 12.5     | 17.5         | 15.0     | 10.0         | 0.8 | 500             | 500      | 500          |
| ECWH12392□V( ) | 0.0039       | 18.0            | 6.0    | 12.5     | 17.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12432□V( ) | 0.0043       | 18.0            | 6.0    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12472□V( ) | 0.0047       | 18.0            | 6.0    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12512□V( ) | 0.0051       | 18.0            | 6.5    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12562□V( ) | 0.0056       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12622□V( ) | 0.0062       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12682□V( ) | 0.0068       | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12752□V( ) | 0.0075       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12822□V( ) | 0.0082       | 18.0            | 7.5    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12912□V( ) | 0.0091       | 18.0            | 7.5    | 14.5     | 19.5         | 15.0     | 10.0         | 0.8 | 400             |          |              |
| ECWH12103□V( ) | 0.010        | 18.0            | 8.0    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12113□V( ) | 0.011        | 18.0            | 8.5    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12123□V( ) | 0.012        | 18.0            | 8.5    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12133□V( ) | 0.013        | 18.0            | 9.0    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8 |                 |          |              |
| ECWH12153□V( ) | 0.015        | 18.0            | 9.5    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8 | 500             |          |              |
| ECWH12163□V( ) | 0.016        | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12183□V( ) | 0.018        | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12203□V( ) | 0.020        | 23.0            | 8.0    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8 | 400             |          |              |
| ECWH12223□V( ) | 0.022        | 23.0            | 8.5    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12243□V( ) | 0.024        | 23.0            | 8.5    | 17.0     | 22.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12273□V( ) | 0.027        | 23.0            | 9.0    | 17.5     | 22.5         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12303□V( ) | 0.030        | 23.0            | 9.5    | 18.0     | 23.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12333□V( ) | 0.033        | 23.0            | 10.0   | 18.5     | 23.5         | 20.0     | 15.0         | 0.8 | 300             |          |              |
| ECWH12363□V( ) | 0.036        | 23.0            | 10.0   | 19.0     | 24.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12393□V( ) | 0.039        | 23.0            | 10.5   | 19.5     | 24.5         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12433□V( ) | 0.043        | 23.0            | 11.0   | 20.0     | 25.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12473□V( ) | 0.047        | 23.0            | 11.5   | 20.5     | 25.5         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12513□V( ) | 0.051        | 23.0            | 12.0   | 21.0     | 26.0         | 20.0     | 15.0         | 0.8 |                 |          |              |
| ECWH12563□V( ) | 0.056        | 28.0            | 11.5   | 20.0     | 25.0         | 25.0     | 17.5         | 0.8 | —               |          |              |
| ECWH12623□V( ) | 0.062        | 28.0            | 12.0   | 21.0     | 26.0         | 25.0     | 17.5         | 0.8 |                 |          |              |
| ECWH12683□V( ) | 0.068        | 28.0            | 12.5   | 21.5     | 26.5         | 25.0     | 17.5         | 0.8 |                 |          |              |
| ECWH12753□V( ) | 0.075        | 28.0            | 13.5   | 22.0     | 27.0         | 25.0     | 17.5         | 0.8 |                 |          |              |
| ECWH12823□V( ) | 0.082        | 28.0            | 14.0   | 22.5     | 27.5         | 25.0     | 17.5         | 0.8 |                 |          |              |
| ECWH12913□V( ) | 0.091        | 28.0            | 14.5   | 23.0     | 28.0         | 25.0     | 17.5         | 0.8 |                 |          |              |
| ECWH12104□V( ) | 0.10         | 28.0            | 15.5   | 24.0     | 29.0         | 25.0     | 17.5         | 0.8 |                 |          |              |

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 1600 V.DC, Capacitance tolerance :  $\pm 3\%$  (H),  $\pm 5\%$  (J)

| Part No.       | Cap.<br>(μF) | Dimensions (mm) |        |          |              |          |              |     | Min. order Q'ty |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
|----------------|--------------|-----------------|--------|----------|--------------|----------|--------------|-----|-----------------|----------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|
|                |              | L max.          | T max. | H max.   |              | F        | S            | ød  | Taping          | Bulk     |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
|                |              |                 |        | Straight | Crimped lead | Straight | Crimped lead |     | 7.5 mm          | Straight | Crimped lead |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16132□V( ) | 0.0013       | 18.0            | 6.5    | 13.0     | 18.0         | 15.0     | 10.0         | 0.8 | 500             | 500      | 500          |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16152□V( ) | 0.0015       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16162□V( ) | 0.0016       | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16182□V( ) | 0.0018       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16202□V( ) | 0.0020       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16222□V( ) | 0.0022       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16242□V( ) | 0.0024       | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16272□V( ) | 0.0027       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16302□V( ) | 0.003        | 18.0            | 7.5    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 | 400             |          |              | 500 | 500 |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16332□V( ) | 0.0033       | 18.0            | 7.5    | 14.5     | 19.5         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16362□V( ) | 0.0036       | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 | 500             |          |              |     |     | 500 | 500 |     |     |     |     |   |     |     |     |     |
| ECWH16392□V( ) | 0.0039       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16432□V( ) | 0.0043       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16472□V( ) | 0.0047       | 23.0            | 6.5    | 14.5     | 19.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16512□V( ) | 0.0051       | 23.0            | 6.5    | 15.0     | 20.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16562□V( ) | 0.0056       | 23.0            | 6.5    | 15.0     | 20.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16622□V( ) | 0.0062       | 23.0            | 7.0    | 15.0     | 20.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16682□V( ) | 0.0068       | 23.0            | 7.0    | 15.5     | 20.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16752□V( ) | 0.0075       | 23.0            | 7.5    | 15.5     | 20.5         | 20.0     | 15.0         | 0.8 | 400             |          |              |     |     |     |     | 500 | 500 |     |     |   |     |     |     |     |
| ECWH16822□V( ) | 0.0082       | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16912□V( ) | 0.0091       | 23.0            | 8.0    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16103□V( ) | 0.010        | 23.0            | 8.0    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16113□V( ) | 0.011        | 23.0            | 8.5    | 17.0     | 22.0         | 20.0     | 15.0         | 0.8 | 300             |          |              |     |     |     |     |     |     | 500 | 500 |   |     |     |     |     |
| ECWH16123□V( ) | 0.012        | 23.0            | 9.0    | 17.0     | 22.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16133□V( ) | 0.013        | 23.0            | 9.0    | 17.5     | 22.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16153□V( ) | 0.015        | 23.0            | 9.5    | 18.0     | 23.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16163□V( ) | 0.016        | 23.0            | 10.0   | 18.5     | 23.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16183□V( ) | 0.018        | 23.0            | 10.5   | 19.5     | 24.5         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16203□V( ) | 0.020        | 23.0            | 11.0   | 20.0     | 25.0         | 20.0     | 15.0         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16223□V( ) | 0.022        | 28.0            | 9.5    | 18.0     | 23.0         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     | — | 500 | 500 |     |     |
| ECWH16243□V( ) | 0.024        | 28.0            | 10.0   | 18.5     | 23.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16273□V( ) | 0.027        | 28.0            | 10.5   | 19.5     | 24.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16303□V( ) | 0.030        | 28.0            | 11.0   | 20.0     | 25.0         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16333□V( ) | 0.033        | 28.0            | 11.5   | 20.5     | 25.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16363□V( ) | 0.036        | 28.0            | 12.5   | 21.5     | 26.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16393□V( ) | 0.039        | 28.0            | 13.5   | 22.0     | 27.0         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16433□V( ) | 0.043        | 28.0            | 14.5   | 22.5     | 27.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16473□V( ) | 0.047        | 28.0            | 15.0   | 23.5     | 28.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |
| ECWH16513□V( ) | 0.051        | 28.0            | 15.5   | 24.0     | 29.0         | 25.0     | 17.5         | 0.8 | 400             |          |              |     |     |     |     |     |     |     |     |   |     |     | 500 | 500 |
| ECWH16563□V( ) | 0.056        | 28.0            | 16.0   | 24.5     | 29.5         | 25.0     | 17.5         | 0.8 |                 |          |              |     |     |     |     |     |     |     |     |   |     |     |     |     |

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 2000 V.DC, Capacitance tolerance :  $\pm 3\%$  (H),  $\pm 5\%$  (J)

| Part No.       | Cap.<br>(μF) | Dimensions (mm) |        |          |              |          |              |     | Min. order Q'ty |                            |     |     |     |     |     |
|----------------|--------------|-----------------|--------|----------|--------------|----------|--------------|-----|-----------------|----------------------------|-----|-----|-----|-----|-----|
|                |              | L max.          | T max. | H max.   |              | F        | S            | ød  | Taping          | Bulk                       |     |     |     |     |     |
|                |              |                 |        | Straight | Crimped lead | Straight | Crimped lead |     | 7.5 mm          | Straight ·<br>Crimped lead |     |     |     |     |     |
| ECWH20102□V( ) | 0.0010       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 | 500             | 500                        |     |     |     |     |     |
| ECWH20112□V( ) | 0.0011       | 18.0            | 6.5    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20122□V( ) | 0.0012       | 18.0            | 7.0    | 13.5     | 18.5         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20132□V( ) | 0.0013       | 18.0            | 7.0    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20152□V( ) | 0.0015       | 18.0            | 7.5    | 14.0     | 19.0         | 15.0     | 10.0         | 0.8 | 400             |                            | 500 |     |     |     |     |
| ECWH20162□V( ) | 0.0016       | 18.0            | 7.5    | 14.5     | 19.5         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20182□V( ) | 0.0018       | 18.0            | 8.0    | 14.5     | 19.5         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20202□V( ) | 0.0020       | 18.0            | 8.0    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20222□V( ) | 0.0022       | 18.0            | 8.5    | 15.0     | 20.0         | 15.0     | 10.0         | 0.8 | 300             |                            |     | 500 |     |     |     |
| ECWH20242□V( ) | 0.0024       | 18.0            | 8.5    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20272□V( ) | 0.0027       | 18.0            | 9.0    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20302□V( ) | 0.0030       | 18.0            | 9.5    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20332□V( ) | 0.0033       | 18.0            | 8.5    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8 | 400             |                            |     |     | 500 |     |     |
| ECWH20362□V( ) | 0.0036       | 18.0            | 9.0    | 15.5     | 20.5         | 15.0     | 10.0         | 0.8 | 300             |                            |     |     |     |     |     |
| ECWH20392□V( ) | 0.0039       | 18.0            | 9.0    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20432□V( ) | 0.0043       | 18.0            | 9.5    | 16.0     | 21.0         | 15.0     | 10.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20472□V( ) | 0.0047       | 23.0            | 7.0    | 15.5     | 20.5         | 20.0     | 15.0         | 0.8 | 500             |                            |     |     |     |     |     |
| ECWH20512□V( ) | 0.0051       | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 | 400             |                            |     |     |     | 500 |     |
| ECWH20562□V( ) | 0.0056       | 23.0            | 7.5    | 16.0     | 21.0         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20622□V( ) | 0.0062       | 23.0            | 8.0    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20682□V( ) | 0.0068       | 23.0            | 8.5    | 16.5     | 21.5         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20752□V( ) | 0.0075       | 23.0            | 9.5    | 18.0     | 23.0         | 20.0     | 15.0         | 0.8 | 300             |                            |     |     |     |     | 500 |
| ECWH20822□V( ) | 0.0082       | 23.0            | 10.0   | 18.0     | 23.0         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20912□V( ) | 0.0091       | 23.0            | 10.0   | 19.0     | 24.0         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20103□V( ) | 0.010        | 23.0            | 10.5   | 19.5     | 24.5         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20113□V( ) | 0.011        | 23.0            | 11.0   | 20.0     | 25.0         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20123□V( ) | 0.012        | 23.0            | 11.5   | 20.5     | 25.5         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20133□V( ) | 0.013        | 23.0            | 12.0   | 21.0     | 26.0         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |
| ECWH20153□V( ) | 0.015        | 23.0            | 12.0   | 21.5     | 26.5         | 20.0     | 15.0         | 0.8 |                 |                            |     |     |     |     |     |

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped