

## Surface Mount Type

Series: H

# SP-Cap

Japan



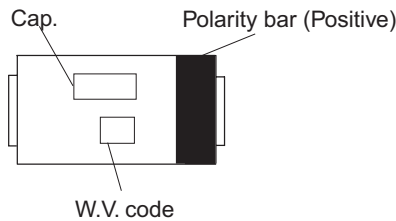
### ■ Features

- High Reliability (125°C)
- Low ESR & High Ripple Current

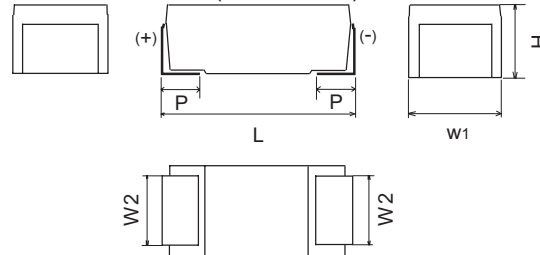
### ■ Specifications

|                       |  |  |
|-----------------------|--|--|
| Operating Temp. Range | -40 to +125°C  |  |
| Rated W.V. Range      | 2 to 8 V. DC   |  |
| Nominal Cap. Range    | 33 to 330 μF   |  |
| Capacitance Tolerance | ±20 % (120Hz/+20°C)  |  |
| DC Leakage Current    | $I \leq 0.1 CV$ after 2minutes   |  |
| Dissipation Factor    | 0.1 max. (120Hz/+20°C)   |  |
| Surge Voltage         | Rated Working Voltage x 1.25 (+15 to +35°C)  |  |
| Endurance             | After applying rated working voltage for 1000 hours or derated voltage (working voltage x 0.875 at 115°C or working voltage x 0.75 at 125°C) and then being stabilized at 20°C, the capacitor shall meet the following limits. |  |
|                       | Capacitance change   | ±10% of initial measured value   |
|                       | D.F.   | ≤ Initial specified value  |
| Moisture Resistance   | After storing for 500 hours at +60°C, 90%R.H.  |  |
|                       | Capacitance change   | 2, 2.5W.V.: +70%,-20%, 4W.V.: +60%,-20%, 6.3W.V.: +50%,-20%, 8W.V.: +40%,-20% of initial measured value. |
|                       | D.F.   | ≤ 200% of initial specified value  |
|                       | DC leakage current   | Initial specified value  |

### ■ Marking



### ■ Dimensions in mm(not to scale)



| Size Code | L±0.2 | W1±0.2 | W2±0.1 | H±0.1               | P±0.3 |
|-----------|-------|--------|--------|---------------------|-------|
| HL        | 7.3   | 4.3    | 2.4    | 1.8                 | 1.3   |
| HD        | 7.3   | 4.3    | 2.4    | 2.8 <sup>±0.2</sup> | 1.3   |
| HE        | 7.3   | 4.3    | 2.4    | 4.2                 | 1.3   |

### ■ Standard product

| Series | Rated W.V. (V.DC) | Capacitance (± 20%) (μF) | Specification                                 |                             | Part Number | Min Pkg Q'ty (pcs) |
|--------|-------------------|--------------------------|---|-----------------------------|-------------|--------------------|
|        |                   |                          | Ripple Current (A r.m.s./100kHz) +20 to 125°C | ESR (mΩ) max (100kHz/+20°C) |             |                    |
| *HL    | 2                 | 100                      | 1.8   | 18                          | EEFHL0D101R | 3500               |
|        | 2.5               | 82                       | 1.8   | 18                          | EEFHL0E820R | 3500               |
|        | 4                 | 56                       | 1.8   | 18                          | EEFHL0G560R | 3500               |
|        |                   | 68                       | 1.8   | 18                          | EEFHL0G680R | 3500               |
|        | 6.3               | 47                       | 1.8   | 18                          | EEFHL0J470R | 3500               |
| HD     | 2                 | 180                      | 2.5   | 15                          | EEFHD0D181R | 2000               |
|        |                   | 220                      | 2.5   | 15                          | EEFHD0D221R | 2000               |
|        | 2.5               | 150                      | 2.5   | 15                          | EEFHD0E151R | 2000               |
|        |                   | 180                      | 2.5   | 15                          | EEFHD0E181R | 2000               |
|        |                   | 120                      | 2.5   | 15                          | EEFHD0G121R | 2000               |
|        | 6.3               | 100                      | 2.5   | 15                          | EEFHD0J101R | 2000               |
|        | 8                 | 68                       | 2.5   | 15                          | EEFHD0K680R | 2000               |
| HE     | 2                 | 270                      | 3.0   | 12                          | EEFHE0D271R | 2000               |
|        |                   | 330                      | 3.0   | 12                          | EEFHE0D331R | 2000               |
|        | 2.5               | 220                      | 3.0   | 12                          | EEFHE0E221R | 2000               |
|        |                   | 270                      | 3.0   | 12                          | EEFHE0E271R | 2000               |
|        | 4                 | 180                      | 3.0   | 12                          | EEFHE0G181R | 2000               |
|        | 6.3               | 150                      | 3.0   | 12                          | EEFHE0J151R | 2000               |
|        | 8                 | 100                      | 3.0   | 12                          | EEFHE0K101R | 2000               |

\* Mass-production begins Q4/2002.