

## Surface Mount Type



### Series : SVPE

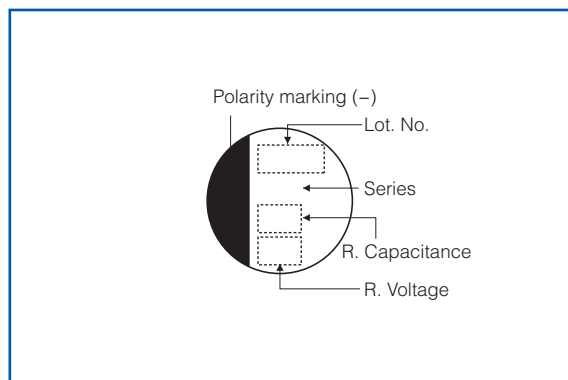
#### Features

- Super low ESR (8 mΩ to 18 mΩ)
- Large capacitance (1200 μF max.)
- RoHS compliance, Halogen free

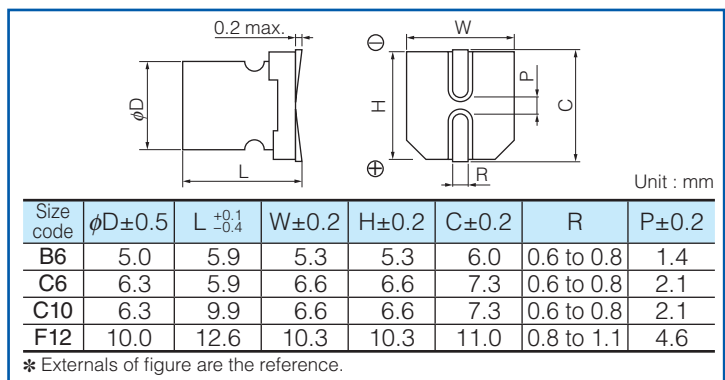
#### Specifications

| Size code                  | B6   | C6  | C10               | F12     |
|----------------------------|--|---|-------------------|---------|
| Category temperature range | -55 °C to +105 °C                                |   |                   |         |
| Rated voltage range        | 2.5 V.DC to 6.3 V.DC                             | 2.5 V.DC to 10 V.DC                                 | 2 V.DC to 16 V.DC | 16 V.DC |
| Rated capacitance range    | 150 μF to 390 μF                                 | 220 μF to 390 μF                                    | 180 μF to 1200 μF | 470 μF  |
| Capacitance tolerance      | ±20 % (120 Hz / + 20 °C)                         |   |                   |         |
| Leakage current            | Please see the attached characteristics list     |   |                   |         |
| Dissipation factor (tan δ) | Please see the attached characteristics list     |   |                   |         |
| Endurance                  | +105 °C, 2000 h, rated voltage applied           |   |                   |         |
|                            | Capacitance change                               | Within ±20 % of the initial value                   |                   |         |
|                            | tan δ  | ≤ 150 % of the initial limit                        |                   |         |
| Damp heat (Steady State)   | +60 °C, 90 % to 95 %, 1000 h, No-applied voltage |   |                   |         |
|                            | Capacitance change                               | Within ±20 % of the initial value                   |                   |         |
|                            | tan δ  | ≤ 150 % of the initial limit                        |                   |         |
|                            | DC leakage current                               | Within the initial limit (after voltage processing) |                   |         |

#### Marking



#### Dimensions (not to scale)



#### Characteristics list

| Series | Rated voltage (V.DC) | Rated capacitance (μF) | Case size (mm) |      | Size code | Specifications                          |                         |    |                     | Standard (Reel size : φ380) |              |                          |
|--------|----------------------|------------------------|----------------|------|-----------|---|-------------------------|----|---------------------|-----------------------------|--------------|--------------------------|
|        |                      |                        | φD             | L    |           | Ripple* <sup>1</sup> current (mAr.m.s.) | ESR                     |    | tan δ* <sup>2</sup> | LC* <sup>3</sup> (μA)       | Part number  | Min. Packaging Qty (pcs) |
|        |                      |                        |                |      |           | 100 kHz/20 °C (mΩ max.)                 | 300 kHz/20 °C (mΩ max.) |    |                     |                             |              |                          |
| SVPE   | 2                    | 1200                   | 6.3            | 9.9  | C10       | 5230                                    | 8                       | 8  | 0.12                | 500                         | 2SVPE1200M   | 500                      |
|        |                      |                        |                |      |           | 3860                                    | 10                      | 9  | 0.12                | 500                         | 2R5SVPE270M  | 1500                     |
|        | 2.5                  | 330                    | 5.0            | 5.9  | B6        | 3150                                    | 15                      | 13 | 0.12                | 500                         | 2R5SVPE330M  | 1500                     |
|        |                      |                        |                |      |           | 3860                                    | 10                      | 9  | 0.12                | 500                         | 2R5SVPE330MY | 1500                     |
|        |                      |                        | 5.0            | 5.9  | C6        | 3860                                    | 10                      | 9  | 0.12                | 700                         | 2R5SVPE390MX | 1500                     |
|        |                      |                        |                |      |           | 3900                                    | 10                      | 9  | 0.12                | 500                         | 2R5SVPE390M  | 1000                     |
|        | 6.3                  | 150                    | 5.0            | 5.9  | B6        | 3520                                    | 12                      | 10 | 0.12                | 500                         | 6SVPE150M    | 1500                     |
|        |                      |                        |                |      |           | 3150                                    | 15                      | 13 | 0.12                | 500                         | 6SVPE180M    | 1500                     |
|        |                      |                        | 5.0            | 5.9  | C6        | 3150                                    | 15                      | 13 | 0.12                | 500                         | 6SVPE220MW   | 1500                     |
|        |                      |                        |                |      |           | 3900                                    | 10                      | 9  | 0.12                | 500                         | 6SVPE220M    | 1000                     |
|        | 10                   | 220                    | 6.3            | 5.9  | C10       | 2700                                    | 20                      | 18 | 0.12                | 500                         | 10SVPE220M   | 1000                     |
|        |                      |                        |                |      |           | 4460                                    | 11                      | 10 | 0.12                | 576                         | 16SVPE180M   | 500                      |
|        | 16                   | 470                    | 10.0           | 12.6 | F12       | 6100                                    | 10                      | 9  | 0.12                | 1504                        | 16SVPE470M   | 400                      |

\*<sup>1</sup> Ripple current (100 kHz/ +105 °C), \*<sup>2</sup> tan δ (120 Hz/+20 °C) \*<sup>3</sup> After 2 minutes  
 ♦ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

#### Frequency correction factor for ripple current

| Frequency   | 120 Hz ≤ f < 1 kHz | 1 kHz ≤ f < 10 kHz | 10 kHz ≤ f < 100 kHz | 100 kHz ≤ f < 500 kHz |
|-------------|--------------------|--------------------|----------------------|-----------------------|
| Coefficient | 0.05               | 0.3                | 0.7                  | 1                     |

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