

## Chip Type 105°C Capacitors (height:5.5mm) Series RVS

- Compatible with surface mounting for 5.5mm high capacitors.
- Supplied with carrier taping.
- Guarantees 1000 hours at 105°C.

RVS

High temperature

RV2



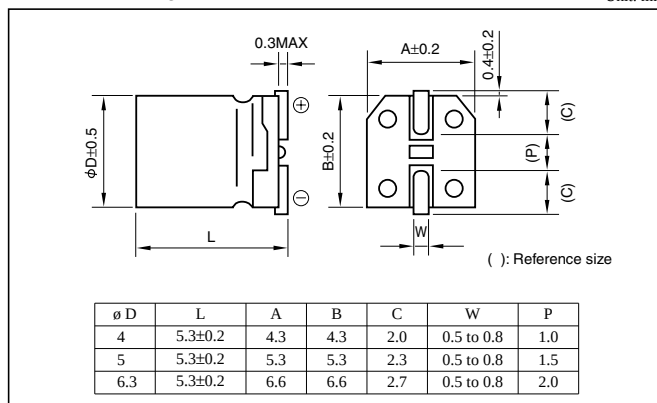
Marking color : Black print

## Specifications

| Item                                          | Performance                                                                                                                                                                                                                                                                                                                                                                      |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------|------|------|------|----|-------------------|------------|----|----|----|----|----|------------------------|-------------------------------------|------|------|------|------|------|----------------------------------|------------------------------|---|---|---|---|--|---------------------------|---------------------------------------------|--|--|--|--|--|
| Category temperature range (°C)               | -55 to +105                                                                                                                                                                                                                                                                                                                                                                      |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Tolerance at rated capacitance (%)            | ±20 (20°C,120Hz)                                                                                                                                                                                                                                                                                                                                                                 |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Leakage current (μA)                          | Less than 0.01CV or 3 whichever is larger(after 2 minutes) C: Rated capacitance(μF); V: Rated voltage(V) (20°C)                                                                                                                                                                                                                                                                  |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Tangent of loss angle (tanδ)                  | <table><tr><td>Rated voltage (V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>tanδ (max.)</td><td>0.30</td><td>0.26</td><td>0.22</td><td>0.16</td><td>0.13</td><td>0.12</td></tr></table> (20°C,120Hz)                                                                                                                                    |                                     |      |      |      |      |    | Rated voltage (V) | 6.3        | 10 | 16 | 25 | 35 | 50 | tanδ (max.)            | 0.30                                | 0.26 | 0.22 | 0.16 | 0.13 | 0.12 |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
|                                               | Rated voltage (V)                                                                                                                                                                                                                                                                                                                                                                | 6.3                                 | 10   | 16   | 25   | 35   | 50 |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| tanδ (max.)                                   | 0.30                                                                                                                                                                                                                                                                                                                                                                             | 0.26                                | 0.22 | 0.16 | 0.13 | 0.12 |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Characteristics at high and low temperature   | <table><tr><td>Rated voltage (V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td rowspan="2">Impedance ratio (max.)</td><td>Z-25°C / Z+20°C</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z-40°C / Z+20°C</td><td>8</td><td>5</td><td>4</td><td>3</td><td>3</td></tr></table> (120Hz)                                   |                                     |      |      |      |      |    | Rated voltage (V) | 6.3        | 10 | 16 | 25 | 35 | 50 | Impedance ratio (max.) | Z-25°C / Z+20°C                     | 4    | 3    | 2    | 2    | 2    | Z-40°C / Z+20°C                  | 8                            | 5 | 4 | 3 | 3 |  |                           |                                             |  |  |  |  |  |
|                                               | Rated voltage (V)                                                                                                                                                                                                                                                                                                                                                                | 6.3                                 | 10   | 16   | 25   | 35   | 50 |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Impedance ratio (max.)                        | Z-25°C / Z+20°C                                                                                                                                                                                                                                                                                                                                                                  | 4                                   | 3    | 2    | 2    | 2    |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
|                                               | Z-40°C / Z+20°C                                                                                                                                                                                                                                                                                                                                                                  | 8                                   | 5    | 4    | 3    | 3    |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Endurance (105°C)<br>(Applied ripple current) | <table><tr><td>Test time</td><td colspan="6">1000 hours</td></tr><tr><td>Leakage current</td><td colspan="6">The initial specified value or less</td></tr><tr><td>Percentage of capacitance change</td><td colspan="6">Within ±20% of initial value</td></tr><tr><td>Tangent of the loss angle</td><td colspan="6">200% or less of the initial specified value</td></tr></table> |                                     |      |      |      |      |    | Test time         | 1000 hours |    |    |    |    |    | Leakage current        | The initial specified value or less |      |      |      |      |      | Percentage of capacitance change | Within ±20% of initial value |   |   |   |   |  | Tangent of the loss angle | 200% or less of the initial specified value |  |  |  |  |  |
|                                               | Test time                                                                                                                                                                                                                                                                                                                                                                        | 1000 hours                          |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
|                                               | Leakage current                                                                                                                                                                                                                                                                                                                                                                  | The initial specified value or less |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
|                                               | Percentage of capacitance change                                                                                                                                                                                                                                                                                                                                                 | Within ±20% of initial value        |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Tangent of the loss angle                     | 200% or less of the initial specified value                                                                                                                                                                                                                                                                                                                                      |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Shelf life (105°C)                            | Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-1                                                                                                                                                                                                                                            |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |
| Applicable standards                          | JIS C5101-1, -18 1998 (IEC 60384-1 1992, -18 1993)                                                                                                                                                                                                                                                                                                                               |                                     |      |      |      |      |    |                   |            |    |    |    |    |    |                        |                                     |      |      |      |      |      |                                  |                              |   |   |   |   |  |                           |                                             |  |  |  |  |  |

## Outline Drawing

Unit: mm



## Coefficient of Frequency for Rated Ripple Current

| Frequency(Hz)    | 50 · 60 | 120 | 1k   | 10k · 100k |
|------------------|---------|-----|------|------------|
| Rated voltage(V) |         |     |      |            |
| 6.3 to 16        | 0.80    | 1   | 1.15 | 1.25       |
| 25 to 35         | 0.80    | 1   | 1.25 | 1.40       |
| 50               | 0.80    | 1   | 1.35 | 1.50       |

## Part numbering system (example: 16V47μF)

| Environmental item | RVS         | 16                   | V                        | 470                          | M                 | U             |  |
|--------------------|-------------|----------------------|--------------------------|------------------------------|-------------------|---------------|--|
|                    | Series code | Rated voltage symbol | Rated capacitance symbol | Capacitance tolerance symbol | Additional symbol | Taping symbol |  |
| Former item        | RVS         | 16                   | V                        | 470                          | M                 |               |  |
|                    | Series code | Rated voltage symbol | Rated capacitance symbol | Capacitance tolerance symbol | Additional symbol | Taping symbol |  |

- Soldering conditions and land size are described on page 14.
- The taping specifications are described on page 15.

## Standard Ratings

| Rated voltage(V)      |      | 6.3     |     |                      | 10      |     |                      | 16      |     |                      | 25      |     |                      | 35      |     |                      | 50      |      |                      |
|-----------------------|------|---------|-----|----------------------|---------|-----|----------------------|---------|-----|----------------------|---------|-----|----------------------|---------|-----|----------------------|---------|------|----------------------|
| Rated capacitance(μF) | Item | Case    | ESR | Rated ripple current | Case    | ESR | Rated ripple current | Case    | ESR | Rated ripple current | Case    | ESR | Rated ripple current | Case    | ESR | Rated ripple current | Case    | ESR  | Rated ripple current |
|                       |      | ø D(mm) | Ω   | mArms                | ø D(mm) | Ω   | mArms                | ø D(mm) | Ω   | mArms                | ø D(mm) | Ω   | mArms                | ø D(mm) | Ω   | mArms                | ø D(mm) | Ω    | mArms                |
| 0.1                   | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 1190 | 2                    |
| 0.22                  | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 905  | 3                    |
| 0.33                  | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 603  | 4                    |
| 0.47                  | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 424  | 5                    |
| 1                     | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 199  | 7                    |
| 2.2                   | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 91   | 10                   |
| 3.3                   | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 60   | 12                   |
| 4.7                   | —    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | 4       | 57  | 12                   | 4       | 46  | 14                   | 5       | 42   | 17                   |
| 10                    | —    | —       | —   | —                    | 4       | 43  | 15                   | 4       | 36  | 16                   | 5       | 27  | 21                   | 5       | 22  | 23                   | 6.3     | 20   | 26                   |
| 22                    | 4    | 23      | 21  | 5                    | 5       | 20  | 25                   | 5       | 17  | 28                   | 6.3     | 12  | 36                   | 6.3     | 10  | 50                   | —       | —    | —                    |
| 33                    | 5    | 15      | 30  | 5                    | 5       | 13  | 31                   | 6.3     | 11  | 40                   | 6.3     | 8.0 | 44                   | —       | —   | —                    | —       | —    | —                    |
| 47                    | 5    | 11      | 36  | 6.3                  | 6.3     | 9.2 | 43                   | 6.3     | 7.8 | 47                   | —       | —   | —                    | —       | —   | —                    | —       | —    | —                    |
| 100                   | 6.3  | 5.0     | 61  | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —   | —                    | —       | —    | —                    |

(Note) Rated ripple current : 105°C, 120Hz ; ESR : 20°C, 120Hz

## NOTE

Design, Specifications are subject to change without notice.  
Ask factory for technical specifications before purchase and/or use.



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331