

# RVE Series

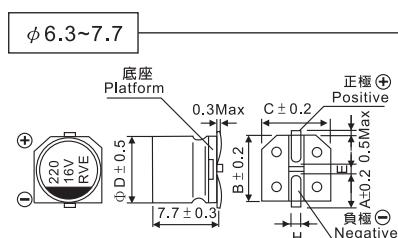
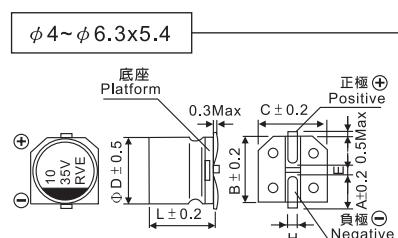
- 1000-hours-load life at 105°C
- Low impedance capacitors
- Designed for surface mounting on higt density PC board.
- RoHS Compliance



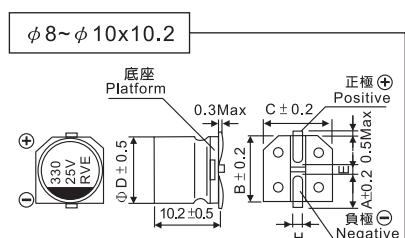
## ● SPECIFICATIONS

| Items                              | Characteristics  |   |      |      |      |      |                        |
|------------------------------------|--|---|------|------|------|------|------------------------|
| Category<br>Temperature Range      | -55 ~ +105°C   |   |      |      |      |      |                        |
| Rated Voltage Range                | 6.3v to 50Vdc  |   |      |      |      |      |                        |
| Capacitance Tolerance              | $\pm 20\%$ (M) (at 20°C , 120Hz)   |   |      |      |      |      |                        |
| Leakage Current                    | I=0.01CV or $3\mu A$ , whichever is greater.<br>Where, I:Max. Leakage current ( $\mu A$ ).<br>C: Nominal capacitance ( $\mu F$ ). V:Rated voltage(V) (at 20°C , after 2 minutes) |   |      |      |      |      |                        |
| Dissipation Factor (tan $\delta$ ) | Rated voltage (Vdc)  | 6.3V  | 10V  | 16V  | 25V  | 35V  | 50V                    |
|                                    | tan $\delta$ (Max.)  | 0.26  | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 (at 20°C , 120Hz) |
| Low Temperature Characteristics    | Impedance ration max at 120Hz  |   |      |      |      |      |                        |
|                                    | Working voltage  | 6.3v  | 10v  | 16v  | 25v  | 35v  | 50v                    |
|                                    | Z-25°C / Z+20°C  | 4   | 3    | 2    | 2    | 2    | 2                      |
|                                    | Z-40°C / Z+20°C  | 12  | 8    | 6    | 4    | 3    | 3                      |
| Load. Life                         | The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for 1000 hours at 105°C                                    |   |      |      |      |      |                        |
|                                    | Capacitance change   | $\leq \pm 30\%$ of the initial value        |      |      |      |      |                        |
|                                    | DF (tan $\delta$ )   | $\leq 300\%$ of the initial specified value |      |      |      |      |                        |
|                                    | Leakage current  | $\leq$ The initial specified value          |      |      |      |      |                        |
| Shelf Life                         | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.                    |   |      |      |      |      |                        |
|                                    | Capacitance change   | $\leq \pm 30\%$ of the initial value        |      |      |      |      |                        |
|                                    | DF (tan $\delta$ )   | $\leq 200\%$ of the initial specified value |      |      |      |      |                        |
|                                    | Leakage current  | $\leq 300\%$ of initial specified value     |      |      |      |      |                        |
| Ripple Current Multiplier          | Frequency coefficient  |   |      |      |      |      |                        |
|                                    | Frequency  | 50 , 60                                     | 120  | 1K   | 10K~ |      |                        |
|                                    | Multiplier   | 0.64  | 0.8  | 0.93 | 1.0  |      |                        |

## ● DIAGRAM OF DIMENSIONS



LEAD SPACING AND DIAMETER Unit: mm





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| $\phi D$ | A   | B    | C    | E   | L    | H       |
|----------|-----|------|------|-----|------|---------|
| 4.0      | 1.8 | 4.3  | 4.3  | 1.0 | 5.4  | 0.5~0.8 |
| 5.0      | 2.1 | 5.3  | 5.3  | 1.3 | 5.4  |         |
| 6.3      | 2.4 | 6.6  | 6.6  | 2.1 | 5.4  |         |
| 6.3      | 2.4 | 6.6  | 6.6  | 2.1 | 7.7  |         |
| 8.0      | 2.9 | 8.3  | 8.3  | 3.1 | 10.2 |         |
| 10.0     | 3.2 | 10.3 | 10.3 | 4.0 | 10.2 | 0.8~1.1 |

### ● STANDARD RATING

| Vdc<br>Item<br>Cap(uF) | 6.3v(0J) |     |          | 10v(1A) |     |          | 16v(1C) |     |          |
|------------------------|----------|-----|----------|---------|-----|----------|---------|-----|----------|
|                        | D*L      | mA  | $\Omega$ | D*L     | mA  | $\Omega$ | D*L     | mA  | $\Omega$ |
| 10                     |          |     |          |         |     |          | 4*5.4   | 50  | 4.5      |
| 22                     | 4*4.5    | 50  | 4.5      | 4*5.4   | 50  | 4.5      | 5*5.4   | 80  | 1.9      |
| 33                     | 5*5.4    | 80  | 1.9      | 5*5.4   | 80  | 1.9      | 6.3*5.4 | 115 | 1.1      |
| 47                     | 5*5.4    | 80  | 1.9      | 6.3*5.4 | 115 | 1.1      | 6.3*5.4 | 115 | 1.1      |
| 100                    | 6.3*5.4  | 115 | 1.1      | 6.3*5.4 | 115 | 1.1      | 6.3*7.7 | 150 | 0.85     |
| 150                    | 6.3*5.4  | 115 | 1.1      | 6.3*7.7 | 150 | 0.85     | 6.3*7.7 | 150 | 0.85     |
| 220                    | 6.3*7.7  | 150 | 0.85     | 6.3*7.7 | 150 | 0.85     | 8*10.2  | 240 | 0.43     |
| 330                    | 6.3*7.7  | 150 | 0.85     | 8*10.2  | 240 | 0.43     | 8*10.2  | 240 | 0.43     |
| 470                    | 8*10.2   | 240 | 0.43     | 8*10.2  | 240 | 0.43     | 10*10.2 | 360 | 0.23     |
| 1000                   | 10*10.2  | 360 | 0.23     | 10*10.2 | 360 | 0.23     |         |     |          |
| 1500                   | 10*10.2  | 360 | 0.23     |         |     |          |         |     |          |

| Vdc<br>Item<br>Cap(uF) | 25v(1E) |     |          | 35v(1V) |     |          | 50v(1H) |     |          |
|------------------------|---------|-----|----------|---------|-----|----------|---------|-----|----------|
|                        | D*L     | mA  | $\Omega$ | D*L     | mA  | $\Omega$ | D*L     | mA  | $\Omega$ |
| 2.2                    |         |     |          |         |     |          | 4*5.4   | 38  | 7.3      |
| 3.3                    |         |     |          |         |     |          | 4*5.4   | 38  | 7.3      |
| 4.7                    | 4*5.4   | 50  | 4.5      | 4*5.4   | 50  | 4.5      | 4*5.4   | 38  | 7.3      |
| 10                     | 4*5.4   | 50  | 4.5      | 5*5.4   | 80  | 1.9      | 5*5.4   | 53  | 3.8      |
| 22                     | 6.3*5.4 | 115 | 1.1      | 6.3*5.4 | 115 | 1.1      | 6.3*5.4 | 103 | 2.2      |
| 33                     | 6.3*5.4 | 115 | 1.1      | 6.3*5.4 | 115 | 1.1      | 6.3*7.7 | 116 | 1.7      |
| 47                     | 6.3*5.4 | 150 | 0.85     | 6.3*7.7 | 150 | 0.85     | 6.3*7.7 | 116 | 1.7      |
| 100                    | 6.3*7.7 | 150 | 0.85     | 8*10.2  | 240 | 0.43     | 8*10.2  | 185 | 0.85     |
| 150                    | 6.3*7.7 | 240 | 0.43     | 10*10.2 | 360 | 0.23     | 10*10.2 | 418 | 0.45     |
| 220                    | 8*10.2  | 240 | 0.43     | 10*10.2 | 360 | 0.23     | 10*10.2 | 418 | 0.45     |
| 330                    | 10*10.2 | 360 | 0.23     | 10*10.2 | 360 | 0.23     |         |     |          |
| 470                    | 10*10.2 | 360 | 0.23     |         |     |          |         |     |          |

Maximum Ripple Current: mA/rms at 100KHz 105°C  
 Maximum Impedance: 20°C 100KHz

Chip Type SMD  
Miniature Type

General Purpose  
High Frequency Low Impedance

High Voltage High Reliability

Non-polar Type

Large Size Snap-in

Large Size Screw

X Metallized Polypropylene Film Capacitors