

# RVE Series

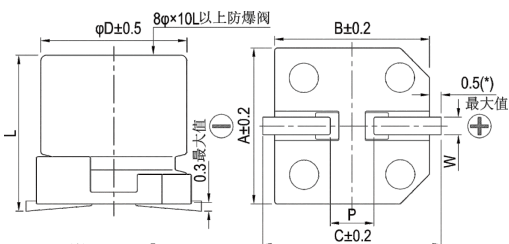
- Available for reflow soldering. Available for high density surface mounting.
- Low Impedance.
- Load life 2,000 hours at 105°C.
- Adapter to the RoHS. REACH directive.



## SPECIFICATIONS

Item	Performance Characteristics																					
Category Temperature Range	-55 ~ +105°C																					
Working Voltage Range	6.3 ~ 50Vdc																					
Capacitance Range	1 ~ 1500 μF																					
Capacitance Tolerance	±20% (at 20°C and 120Hz)																					
Dissipation Factor (tanδ) (at 20°C, 120Hz)	<table border="1"> <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>0.26</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> </tr> </table>	Rated Voltage (V)	6.3	10	16	25	35	50	Tanδ(Max)	0.26	0.20	0.16	0.14	0.12	0.12							
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Tanδ(Max)	0.26	0.20	0.16	0.14	0.12	0.12																
Leakage Current	I=0.01CV or 3 μA, whichever is greater I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 2 minutes																					
Low Temperature Characteristics Impedance Ratio(MAX)	<table border="1"> <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>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-55°C)/Z(+20°C)</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table> <p style="text-align: right;">(at 120Hz)</p>	Rated voltage (V)	6.3	10	16	25	35	50	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	Z(-55°C)/Z(+20°C)	12	8	6	4	3	3
Rated voltage (V)	6.3	10	16	25	35	50																
Z(-25°C)/Z(+20°C)	4	3	2	2	2	2																
Z(-55°C)/Z(+20°C)	12	8	6	4	3	3																
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 105°C. <table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±30% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ 300% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ specified value</td> </tr> </table>	Capacitance change	≒ ±30% of the initial value	Dissipation factor(tanδ)	≒ 300% of the specified value	Leakage current	≒ specified value															
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Dissipation factor(tanδ)	≒ 300% of the specified value																					
Leakage current	≒ specified value																					
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied. <table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±30% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ 300% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ 200% of the specified value</td> </tr> </table>	Capacitance change	≒ ±30% of the initial value	Dissipation factor(tanδ)	≒ 300% of the specified value	Leakage current	≒ 200% of the specified value															
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Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After reflow soldering and restored at room temperature, they meet the characteristics requirements listed below. <table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±10% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ specified value</td> </tr> </table>	Capacitance change	≒ ±10% of the initial value	Dissipation factor(tanδ)	≒ specified value	Leakage current	≒ specified value															
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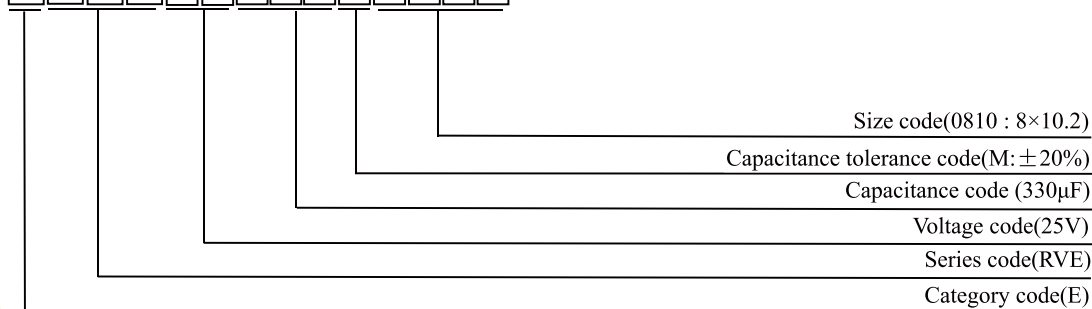
## DIMENSIONS (mm)



ΦD	L	A	B	C	W	P±0.2
4	5.4±0.3	4.3	4.3	5.0	0.5~0.8	1.0
5	5.4±0.3	5.3	5.3	6.0	0.5~0.8	1.4
6.3	5.4±0.5	6.6	6.6	7.2	0.5~0.8	1.9
6.3	7.7±0.5	6.6	6.6	7.2	0.5~0.8	3.1
8	6.5±0.5	8.3	8.3	9.1	0.8~1.1	3.1
8	10.2±0.5	8.3	8.3	9.1	0.8~1.1	3.1
10	10.2±0.5	10.3	10.3	11.1	0.8~1.1	4.5

## PART NUMBER SYSTEM( Example : 25V 330μF )

E R V E I E 3 3 1 M 0 8 1 0



## RVE Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 100KHz; Impedance: ( $\Omega$ ) at 20°C / 100KHz

$\mu\text{F}$ \ Vdc	6.3V			10V			16V		
	$\Phi\text{D} \times \text{L}$	Z	RC	$\Phi\text{D} \times \text{L}$	Z	RC	$\Phi\text{D} \times \text{L}$	Z	RC
10							4×5.4	3.2	60
22	4×5.4	3.2	60	4×5.4 5×5.4	3.2 1.5	60 110	5×5.4	1.5	110
33	5×5.4	1.5	110	5×5.4	1.5	110	5×5.4 6.3×5.4	1.5 0.85	110 70
47	5×5.4	1.5	110	5×5.4 6.3×5.4	1.5 0.85	110 170	5×5.4 6.3×5.4	1.5 0.85	110 70
100	5×5.4 6.3×5.4	1.5 0.85	110 170	6.3×5.4 6.3×7.7	0.85 0.60	170 230	6.3×5.4 6.3×7.7	0.85 0.60	70 230
150	6.3×5.4	0.85	170	6.3×5.4	0.85	170	6.3×7.7	0.60	230
220	6.3×5.4 6.3×7.7	0.85 0.80	170 230	6.3×7.7	0.60	230	6.3×7.7 8×10.2	0.60 0.43	230 450
330	6.3×7.7	0.60	230	8×10.2	0.43	450	8×10.2	0.43	450
470	8×10.2	0.43	450	8×10.2	0.43	450	8×10.2 10×10.2	0.43 0.23	450 670
680	8×10.2	0.43	450	10×10.2	0.23	670	10×10.2	0.23	670
1000	8×10.2 10×10.2	0.43 0.23	450 670	10×10.2	0.23	670			
1500	10×10.2	0.23	670						

$\mu\text{F}$ \ Vdc	25V			35V			50V		
	$\Phi\text{D} \times \text{L}$	Z	RC	$\Phi\text{D} \times \text{L}$	Z	RC	$\Phi\text{D} \times \text{L}$	Z	RC
1							4×5.4	5.0	30
2.2							4×5.4	5.0	30
3.3							4×5.4	5.0	30
4.7	4×5.4	3.2	60	4×5.4	3.2	60	5×5.4	3.0	50
10	4×5.4 5×5.4	3.2 1.5	60 100	4×5.4 5×5.4	3.2 1.5	60 110	6.3×5.4	2.0	70
22	5×5.4 6.3×5.4	1.5 0.85	110 170	5×5.4 6.3×5.4	1.5 0.85	110 170	6.3×5.4 6.3×7.7	2.0 1.0	70 120
33	6.3×5.4	0.85	170	6.3×5.4	0.85	170	6.3×7.7	1.0	120
47	6.3×5.4 6.3×7.7	0.85 0.60	170 230	6.3×5.4 6.3×7.7	0.85 0.60	170 230	6.3×7.7 8×10.2	1.0 0.60	120 300
100	6.3×7.7	0.60	230	6.3×7.7 8×10.2	0.60 0.43	230 450	8×10.2 10×10.2	0.60 0.30	300 500
150	8×10.2	0.43	450	8×10.2	0.43	450	10×10.2	0.30	500
220	8×10.2 10×10.2	0.43 0.23	450 670	10×10.2	0.23	670	10×10.2	0.30	500
330	8×10.2 10×10.2	0.43 0.23	450 670						
470	10×10.2	0.23	670						

### ◆ RIPPLE CURRENT MULTIPLIERS

#### Frequency Multipliers

Vdc	Frequency (Hz)				
	50Hz	120Hz	300Hz	1KHz	$\geq 10\text{KHz}$
6.3 ~ 50	0.64	0.80	0.85	0.93	1.00