

VH系列 SERIES

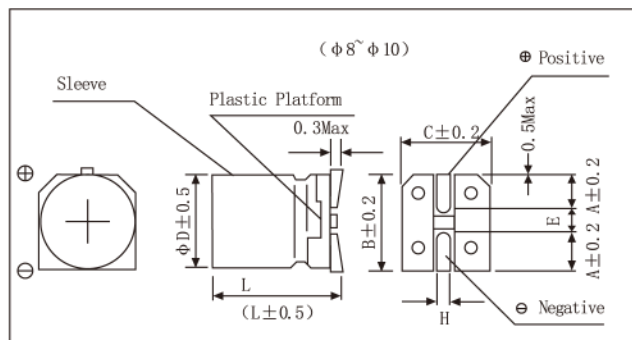
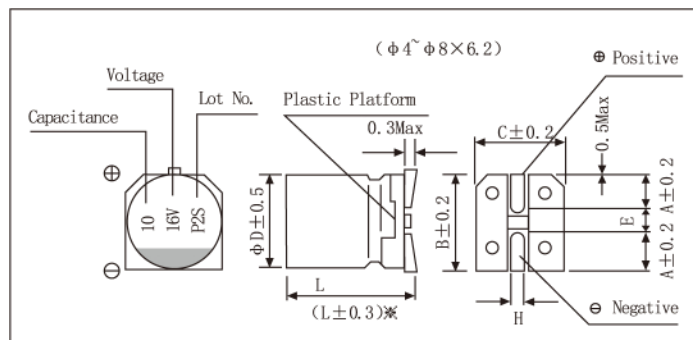
- V-CHIP Type
- Load life : 105°C 2000 hours
- Complied to the RoHS directive



◆ SPECIFICATION

Items	Characteristics																															
Operating Temperature Range(℃)	-40~+105℃																															
Voltage range (V)	4~50V																															
Capacitance Range (μF)	0.1~1500 μF																															
Capacitance Tolerance	±20% (at 20℃, 120Hz)																															
Dissipation Factor(Tan δ)	<table><tr><td>U_R(V)</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>tg δ</td><td>0.40</td><td>0.30</td><td>0.24</td><td>0.20</td><td>0.16</td><td>0.14</td><td>0.14</td></tr></table> (at 20℃, 120Hz)								U _R (V)	4	6.3	10	16	25	35	50	tg δ	0.40	0.30	0.24	0.20	0.16	0.14	0.14								
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Low Temperature Characteristics	<table><tr><td>U_R(V)</td><td>4</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℃/Z+20℃</td><td>7</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z-40℃/Z+20℃</td><td>15</td><td>8</td><td>8</td><td>4</td><td>4</td><td>3</td><td>3</td></tr></table> (at 120Hz)								U _R (V)	4	6.3	10	16	25	35	50	Z-25℃/Z+20℃	7	4	3	2	2	2	2	Z-40℃/Z+20℃	15	8	8	4	4	3	3
U _R (V)	4	6.3	10	16	25	35	50																									
Z-25℃/Z+20℃	7	4	3	2	2	2	2																									
Z-40℃/Z+20℃	15	8	8	4	4	3	3																									
leakage current (μA)	I=0.01C _R U _R or 3μA whichever is greater. (at20℃,After 2 minutes application of rated voltage) I=Leakage Current U _R =Rated Voltage C _R =Rated Capacitance																															
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated rippled current is applied for 2000 hours at 85℃ <table><tr><td>Capacitance change</td><td>Within ±20%initial value 16V: Within ±25%initial value</td></tr><tr><td>D. F. (Tan δ)</td><td>Not more than200% of specified value</td></tr><tr><td>leakage current</td><td>Not more than specified value</td></tr></table>								Capacitance change	Within ±20%initial value 16V: Within ±25%initial value	D. F. (Tan δ)	Not more than200% of specified value	leakage current	Not more than specified value																		
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Shelf Life	After storage for 1000 hours at +85℃, the capacitors shall meet the requirement of load life above.																															
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 25℃ for 30 seconds.After removing from the hot plate and restored at room temperature, they meet the following requirement. <table><tr><td>Capacitance change</td><td>Within ±10%initial value</td></tr><tr><td>D. F. (Tan δ)</td><td>Not more than initial specified value</td></tr><tr><td>leakage current</td><td>Not more than initial specified value</td></tr></table>								Capacitance change	Within ±10%initial value	D. F. (Tan δ)	Not more than initial specified value	leakage current	Not more than initial specified value																		
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Frequency coefficient	<table><tr><td>Frequency(Hz) Rated voltage(v)</td><td>50</td><td>120</td><td>300</td><td>1k</td><td>≥10k</td></tr><tr><td>4~50WV</td><td>0.70</td><td>1.00</td><td>1.17</td><td>1.36</td><td>1.50</td></tr></table>								Frequency(Hz) Rated voltage(v)	50	120	300	1k	≥10k	4~50WV	0.70	1.00	1.17	1.36	1.50												
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4~50WV	0.70	1.00	1.17	1.36	1.50																											

◆ Dimensions



VH系列

SERIES

Apply to $\phi 6.3 \times 7.7$ $\phi 8 \times 6.2$

(mm)

	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×6.2	8×10	10×10
A	1.8	2.1	2.4	2.4	3.3	2.9	3.2
B	4.3	4.3	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	7.7	6.2	10.0	10.0
H	0.5~0.8					0.8~1.1	

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C 120Hz	Size $\phi D \times L$
(V)	(μF)	(mA rms)	(mm)
4 (0G)	22	22	4×5.4
	33	30	5×5.4
	47	36	5×5.4
	100	60	6.3×5.4
	150	86	6.3×7.7
	220	102	6.3×7.7
	330	105	6.3×7.7
	470	210	8×10
	680	210	8×10
	1000	230	8×10
6.3 (8) 0J	1500	310	10×10
	22	22	4×5.4
	33	30	5×5.4
	47	36	5×5.4
	100	60	6.3×5.4
	150	86	6.3×7.7
	220	102	6.3×7.7
	330	105	6.3×7.7
	470	210	8×10
	680	210	8×10
10 (13) 1A	1000	230	8×10
	1500	310	10×10
	22	27	5×5.4
	33	35	5×5.4
	47	46	6.3×5.4
	100	60	6.3×5.4
	150	86	6.3×7.7
	220	105	6.3×7.7
	330	195	8×10
	470	210	8×10
16 (20) 1C	680	310	10×10
	1000	310	10×10
	10	18	4×5.4
	22	30	5×5.4
	33	40	6.3×5.4
	47	50	6.3×5.4
	100	60	6.3×5.4
	150	95	6.3×7.7
	220	105	6.3×7.7
	330	195	8×10
	470	230	8×10
	680	310	10×10



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C 120Hz	Size Φ D × L
(V)	(μF)	(mA rms)	(mm)
25 (32) 1E	4.7	13	4 × 5.4
	10	23	5 × 5.4
	22	38	6.3 × 5.4
	33	48	6.3 × 5.4
	47	66	6.3 × 7.7
	100	91	6.3 × 7.7
	150	140	8 × 10
	220	155	8 × 10
	330	190	8 × 10
35 (44) 1V	470	300	10 × 10
	2.2	7.5	4 × 5.4
	3.3	9	4 × 5.4
	4.7	15	4 × 5.4
	10	25	5 × 5.4
	22	42	6.3 × 5.4
	33	59	6.3 × 7.7
	47	63	6.3 × 7.7
	100	84	6.3 × 7.7
50 (63) 1H	150	155	8 × 10
	220	190	8 × 10
	330	300	10 × 10
	0.1	1.0	4 × 5.4
	0.22	2.6	4 × 5.4
	0.33	3.2	4 × 5.4
	0.47	3.8	4 × 5.4
	1.0	6.3	4 × 5.4
	2.2	11	4 × 5.4
	3.3	14	4 × 5.4
	4.7	19	5 × 5.4
	10	30	6.3 × 5.4
	22	51	6.3 × 7.7
	33	60	6.3 × 7.7
	47	63	6.3 × 7.7
	100	140	8 × 10
	150	180	10 × 10
	220	220	10 × 10

Customer products are available on request