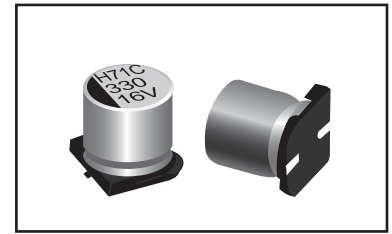
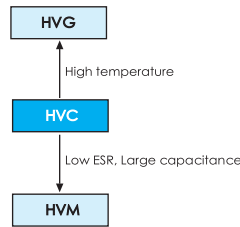


- Chip Type, Standard 105°C, 2000 hours
- Low ESR, high ripple current capability
- Applications: DC/DC Converter, Switching Power Supply, Back up Power Supplies for CPU etc.
- RoHS Compliant



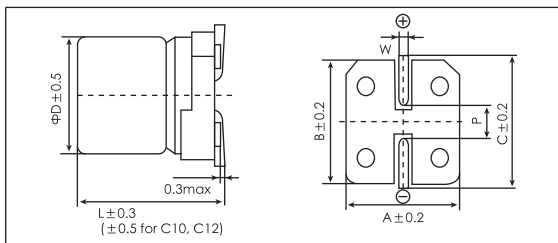
Items	Characteristics
Operating Temperature Range (°C)	-55 ~ +105
Voltage Range (V)	2.5 ~ 25
Capacitance Range (μF) (20°C, 120Hz)	10 ~ 1500
Capacitance Tolerance (20°C, 120Hz)	± 20%
Surge Voltage	$U_R \times 1.15$
Leakage Current (μA) ※1	Please see the attached ratings list (20°C, 2min)
Dissipation Factor (20°C, 120Hz)	Please see the attached ratings list
Equivalent Series Resistance (20°C, 100kHz)	Please see the attached ratings list
Temperature Characteristics (Max Impedance Ratio at 100kHz)	$Z_{+105^\circ\text{C}} / Z_{+20^\circ\text{C}} \leq 1.25$ $Z_{-55^\circ\text{C}} / Z_{+20^\circ\text{C}} \leq 1.25$
Endurance	<b>2000h, Rated voltage applied at 105°C</b> Capacitance change: within ± 20% of the initial measured value Dissipation Factor (Tan δ): ≤ 150% of initial specified value ESR: ≤ 150% of initial specified value DC Leakage Current: ≤ the initial specified value
Damp heat(Steady state)	<b>1000h, No-applied voltage 60°C, 90~95% RH</b> Capacitance change: within ± 20% of the initial measured value Dissipation Factor (Tan δ): ≤ 150% of initial specified value ESR: ≤ 150% of initial specified value DC Leakage Current: ≤ the initial specified value (after voltage processing)
Resistance to soldering heat	<b>Reflow method (260°C x 5s)</b> Capacitance change: within ± 10% of the initial measured value Dissipation Factor (Tan δ): ≤ 130% of initial specified value ESR: ≤ 130% of initial specified value DC Leakage Current: ≤ the initial specified value (after voltage processing)

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C.

## Dimensions

mm

## Size list



(unit:mm)

Size Code	φD±0.5	L	A±0.2	B±0.2	C±0.2	W	P±0.2
F60	6.3	5.7	6.6	6.6	7.3	0.5~0.8	2.0
B70	8	6.7	8.3	8.3	9.0	0.5~0.8	3.1
B12	8	12.2	8.3	8.3	9.0	0.7~1.1	3.1
C12	10	12.2	10.3	10.3	11.0	0.7~1.1	4.6

Cap.(μF) \ U <sub>r</sub> [S.V] (V)	2.5 [2.9]	4 [4.6]	6.3 [7.2]	10 [12]	16 [18]	20 [23]	25 [29]
10							F60,B70
22							F60, B70
27							F60
33						F60	B70, B12
39						F60	B70
47				F60	F60	B70	B12
56				F60	B70		C12
68			F60	F60			
82			F60		B70		
100		F60	F60		B12	B12	
120			F60	B70			
150		F60	B70	B70	C12	C12	
180			B70		B12		
220	F60	B70	B70		B12,C12		
270		B70		B12			
330		B70		B12	C12		
390			B12				
470	B70		B12	C12			
560	B70	B12	B12	C12			
680	B12		C12				
820		C12	C12				
1000			C12				
1200		C12					
1500	C12						

## Ratings for HVC Series

U <sub>R</sub> Code	Rated Capacitance 20°C, 120Hz	Max ESR 20°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Dissipation Factor 20°C, 120Hz	Leakage Current 20°C, 2min	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mA <sub>rms</sub> )	(%)	(μA)	(mm)	-	
2.5 0E	220	20	2800	12	110.0	6.3×5.7	PCV0EVC221MF60□□	
	470	20	3300	12	235.0	8×6.7	PCV0EVC471MB70□□	
	560	20	3300	12	280.0	8×6.7	PCV0EVC561MB70□□	
	680	12	4770	12	340.0	8×12.2	PCV0EVC681MB12□□	
	1500	10	5500	12	750.0	10×12.2	PCV0EVC152MC12□□	
4 0G	100	22	2600	12	80.0	6.3×5.7	PCV0GVC101MF60□□	
	150	22	2800	12	120.0	6.3×5.7	PCV0GVC151MF60□□	
	220	21	3220	12	176.0	8×6.7	PCV0GVC221MB70□□	
	270	21	3220	12	216.0	8×6.7	PCV0GVC271MB70□□	
	330	21	3400	12	264.0	8×6.7	PCV0GVC331MB70□□	
	560	12	4770	12	448.0	8×12.2	PCV0GVC561MB12□□	
	820	10	5500	12	656.0	10×12.2	PCV0GVC821MC12□□	
	1200	10	5500	12	960.0	10×12.2	PCV0GVC122MC12□□	
	68	27	2400	12	85.7	6.3×5.7	PCV0JVC680MF60□□	
	82	23	2600	12	103.3	6.3×5.7	PCV0JVC820MF60□□	
6.3 0J	100	23	2800	12	126.0	6.3×5.7	PCV0JVC101MF60□□	
	120	17	3000	12	151.2	6.3×5.7	PCV0JVC121MF60□□	
	150	22	3200	12	189.0	8×6.7	PCV0JVC151MB70□□	
	180	22	3200	12	226.8	8×6.7	PCV0JVC181MB70□□	
	220	22	3400	12	277.2	8×6.7	PCV0JVC221MB70□□	
	390	12	4770	12	491.4	8×12.2	PCV0JVC391MB12□□	
	470	12	4770	12	592.2	8×12.2	PCV0JVC471MB12□□	
	560	12	4770	12	705.6	8×12.2	PCV0JVC561MB12□□	
	680	10	5500	12	642.6	10×12.2	PCV0JVC681MC12□□	
	820	10	5500	12	774.9	10×12.2	PCV0JVC821MC12□□	
	1000	10	5500	12	945.0	10×12.2	PCV0JVC102MC12□□	
	10 1A	47	26	2600	12	94.0	6.3×5.7	PCV1AVC470MF60□□
		56	25	2500	12	112.0	6.3×5.7	PCV1AVC560MF60□□
68		30	2200	12	136.0	6.3×5.7	PCV1AVC680MF60□□	
120		23	3000	12	240.0	8×6.7	PCV1AVC121MB70□□	
150		23	3200	12	300.0	8×6.7	PCV1AVC151MB70□□	
270		13	4500	12	540.0	8×12.2	PCV1AVC271MB12□□	
330		14	4420	12	660.0	8×12.2	PCV1AVC331MB12□□	
470		12	5300	12	705.0	10×12.2	PCV1AVC471MC12□□	
560		12	5300	12	840.0	10×12.2	PCV1AVC561MC12□□	
16 1C	33	31	2400	12	105.6	6.3×5.7	PCV1CVC330MF60□□	
	39	24	2500	12	124.8	6.3×5.7	PCV1CVC390MF60□□	
	47	24	2500	12	150.4	6.3×5.7	PCV1CVC470MF60□□	
	56	30	2900	12	179.2	8×6.7	PCV1CVC560MB70□□	
	82	28	3200	12	262.4	8×6.7	PCV1CVC820MB70□□	
	100	25	3000	12	320.0	8×12.2	PCV1CVC101MB12□□	
	180	16	4400	12	576.0	8×12.2	PCV1CVC181MB12□□	
	220	16	4400	12	704.0	8×12.2	PCV1CVC221MB12□□	
	150	20	4320	12	480.0	10×12.2	PCV1CVC151MC12□□	
	220	14	5050	12	528.0	10×12.2	PCV1CVC221MC12□□	
	330	14	5050	12	792.0	10×12.2	PCV1CVC331MC12□□	
20 1D	22	35	2040	12	88.0	6.3×5.7	PCV1DVC220MF60□□	
	27	35	2040	12	108.0	6.3×5.7	PCV1DVC270MF60□□	
	33	45	2000	12	132.0	8×6.7	PCV1DVC330MB70□□	
	39	45	2000	12	156.0	8×6.7	PCV1DVC390MB70□□	
	47	33	2630	12	188.0	8×6.7	PCV1DVC470MB70□□	
	100	22	3320	12	400.0	8×12.2	PCV1DVC101MB12□□	
	150	20	4320	12	600.0	10×12.2	PCV1DVC151MC12□□	
25 1E	10	65	1500	12	50.0	6.3×5.7	PCV1EVC100MF60□□	
	10	60	1600	12	50.0	8×6.7	PCV1EVC100MB70□□	
	22	50	1800	12	110.0	8×6.7	PCV1EVC220MB70□□	
	33	30	3000	12	412.5	8×12.2	PCV1EVC330MB12□□	
	47	30	3000	12	587.5	8×12.2	PCV1EVC470MB12□□	
	56	28	3800	12	700.0	10×12.2	PCV1EVC560MC12□□	

POLYMER

Customer products are available on request.

## Frequency coefficient for ripple current

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