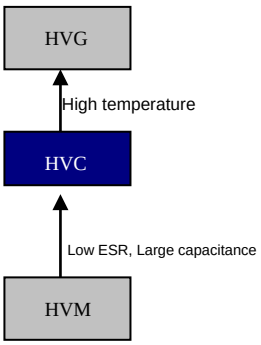
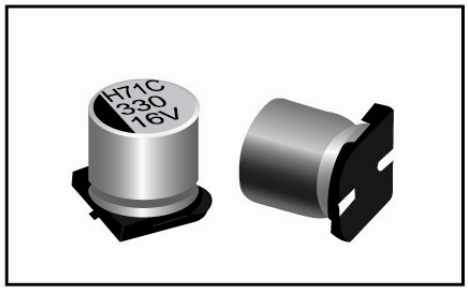
HVC SERIES

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



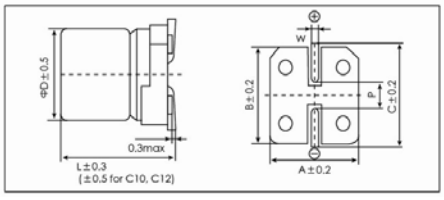


Items	Characteristics
Operating Temperature Range(°C)	-55~+105
Voltage Range (V)	2.5~25
Capacitance Range(μF)(20°C,120Hz)	10~1500
Capacitance Tolerance (20°C,120Hz)	±20%
Surge Voltage	U_R×1.15
Leakage Current (μA)※1	Please see attached ratings list (20℃,2min)
Dissipation Factor (20°C,120Hz)	Please see attached ratings list
Equivalent Series Resistance(20°C,100kHz)	Please see attached ratings list
Temperature Characteristics(Max Impedance Ratio at 100kHz)	Z (+105℃)/Z (+20℃): ≤1.25 Z (-55℃)/Z (+20℃): ≤1.25
Endurance	**2000h,Rated voltage applied at 105℃** Capacitance change:within±20% of the initialMeasured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DCLeakage Currrent: ≤the initial specified value
Damp heat(Steady state)	**1000h,No-applied voltage 60℃,90~95% RH** Capacitance change:within±20% of the initialMeasured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DCLeakage Currrent: ≤the initial specified value(after voltage processing)
Resistance to soldering heat	**ReflowMethod (260℃×5s)** Capacitance change:within±10% of the initialMeasured value Dissipation Factor (Tan δ): ≤130% of initial specified value ESR: ≤130% of initial specified value DCLeakage Currrent: ≤the initial specified value(after voltage processing)

※ 1 In case of some problems forMeasured values,Measure after applying rated voltage for120Minutes at 105℃.

(unit:Mm)

Dimensions 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
F10	6.3	9.7	6.6	6.6	7.3	0.7 ~ 1.1	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
C80	10	7.7	10.3	10.3	11.0	0.7 ~ 1.1	4.6
C10	10	9.7	10.3	10.3	11.0	0.7 ~ 1.1	4.6
C12	10	12.2	10.3	10.3	11.0	0.7 ~ 1.1	4.6

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Size List

UR[S.V](V) / Cap.(μF)	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,C80
27						F60	
33					F60	B70	B12
39					F60	B70	C80
47				F60		B70	B12,C10
56				F60	B70	C80	C12
68			F60	F60	B10	C80	
82			F60		B70	C80	
100		F60	F60		B10,B12,C80	B12	
120			F60	B70		C10	
150		F60	B70	B70,C80	C80,C12	C12	
180			B70		B12,C80		
220	F60	B70	B70,C80		B12,C10,C12		
270		B70		B12,C80			
330		B70	C80	B12,C80	C12		
390			B12				
470	B70	C80	B12,C80,C10	C10,C12			
560	B70	B12	B12	C10,C12			
680	B12	C80	C10,C12				
820	C80	C10,C12	C12				
1,000	C80		C12				
1,200		C12					
1,500	C10,C12						

Ratings for HVS Series

U_R Code	Rated Capacitance 20℃, 120Hz	Max ESR 20℃, 100kHz	Rated Ripple Current 105℃, 100kHz	Dissipation Factor 20℃, 120Hz	Leakage Current 20℃,2min	Size ΦD×L	P/N
(v)	(μF)	(mΩ)	(mArms)	(%)	(μA)	(mm)	-
2.5 0E	220	20	2,800	12	110.0	6.3X5.7	PCV0EVC221MF60□□
	470	20	3,300	12	235.0	8x6.7	PCV0EVC471MB70□□
	560	20	3,300	12	280.0	8x6.7	PCV0EVC561MB70□□
	680	12	4,770	12	340.0	8X12.2	PCV0EVC681MB12□□
	820	17	4,400	12	410.0	10x7.7	PCV0EVC821MC80□□
	1,000	17	4,400	12	500.0	10x7.7	PCV0EVC102MC80□□
	1,500	13	4,800	12	750.0	10x9.7	PCV0EVC152MC10□□
	1,500	10	5,500	12	750.0	10x12.2	PCV0EVC152MC12□□
4 0G	100	22	2,600	12	80.0	6.3X5.7	PCV0GVC101MF60□□
	150	22	2,800	12	120.0	6.3X5.7	PCV0GVC151MF60□□
	220	21	3,220	12	176.0	8x6.7	PCV0GVC221MB70□□
	270	21	3,220	12	216.0	8x6.7	PCV0GVC271MB70□□
	330	21	3,400	12	264.0	8x6.7	PCV0GVC331MB70□□
	560	12	4,770	12	448.0	8X12.2	PCV0GVC561MB12□□
	470	17	4,400	12	376.0	10x7.7	PCV0GVC471MC80□□
	680	17	4,400	12	544.0	10X7.7	PCV0GVC681MC80□□
	820	13	4,800	12	656.0	10x9.7	PCV0GVC821MC10□□
	820	10	5,500	12	656.0	10x12.2	PCV0GVC821MC12□□
	1,200	10	5,500	12	960.0	10x12.2	PCV0GVC122MC12□□
6.3 0J	68	27	2,400	12	85.7	6.3X5.7	PCV0JVC680MF60□□
	82	23	2,600	12	103.3	6.3X5.7	PCV0JVC820MF60□□
	100	23	2,800	12	126.0	6.3X5.7	PCV0JVC101MF60□□
	120	17	3,000	12	151.2	6.3X5.7	PCV0JVC121MF60□□
	150	22	3,200	12	189.0	8x6.7	PCV0JVC151MB70□□
	180	22	3,200	12	226.8	8x6.7	pcv0Jvci8iMB70□□
	220	22	3,400	12	277.2	8x6.7	PCV0JVC221MB70□□
	390	12	4,770	12	491.4	8X12.2	PCV0JVC391MB12□□
	470	12	4,770	12	592.2	8X12.2	PCV0JVC471MB12□□
	560	12	4,770	12	705.6	8X12.2	PCV0JVC561MB12□□
	220	25	3,700	12	277.2	10X7.7	PCV0JVC221MC80□□
	330	18	4,300	12	415.8	10X7.7	PCV0JVC331MC80□□
	470	18	4,300	12	592.2	10X7.7	PCV0JVC471MC80□□

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	470	16	4,600	12	592.2	10x9.7	PCV0JVC471MC10□□
	680	14	5,000	12	856.8	10x9.7	PCV0JVC681MC10□□
	680	10	5,500	12	642.6	10x12.2	PCV0JVC681MC12□□
	820	10	5,500	12	774.9	10x12.2	PCV0JVC821MC12□□
	1,000	10	5,500	12	945.0	10x12.2	PCV0JVC102MC12□□
	47	26	2,600	12	94.0	6.3X5.7	PCV1AVC470MF60□□
	56	25	2,500	12	112.0	6.3X5.7	PCV1AVC560MF60□□
	68	30	2,200	12	136.0	6.3X5.7	PCV1AVC680MF60□□
	120	23	3,000	12	240.0	8x6.7	PCV1AVC121MB70□□
	150	23	3,200	12	300.0	8x6.7	PCV1AVC151MB70□□
	270	13	4,500	12	540.0	8X12.2	PCV1AVC271MB 12□□
10 1A	330	14	4,420	12	660.0	8X12.2	PCV1AVC331MB 12□□
	150	21	3,300	12	300.0	10x7.7	PCV1AVC151MC80□□
	270	20	3,770	12	540.0	10X7.7	PCV1AVC271MC80□□
	330	20	3,770	12	660.0	10X7.7	PCV1AVC331MC80□□
	470	16	4,600	12	940.0	10x9.7	PCV1AVC471MC10□□
	560	15	4,800	12	1,120.0	10x9.7	PCV1AVC561MC10□□
	470	12	5,300	12	705.0	10x12.2	PCV1AVC471MC12□□
	560	12	5,300	12	840.0	10x12.2	PCV1AVC561MC12□□
	33	31	2,400	12	105.6	6.3X5.7	PCV1CVC330MF60□□
	39	24	2,500	10	124.8	6.3X5.7	PCV1CVC390MF60□□
	100	30	2,700	12	320.0	6.3X9.7	PCV1CVC101MF10□□
	56	30	2,900	10	179.2	8x6.7	PCV1CVC560MB70□□
	82	28	3,200	10	262.4	8x6.7	PCV1CVC820MB70□□
	68	27	3,300	12	217.6	8x9.7	PCV1CVC680MB10□□
	100	25	3,000	12	320.0	8X12.2	PCV1CVC101MB12□□
	180	16	4,400	12	576.0	8X12.2	PCV1CVC181MB12□□
16 1C	220	16	4,400	12	704.0	8X12.2	PCV1CVC221MB12□□
	100	27	3,300	10	320.0	10x7.7	PCV1CVC101MC80□□
	150	25	3,430	10	480.0	10x7.7	PCV1CVC151MC80□□
	180	25	3,430	12	576.0	10X7.7	PCV1CVC181MC80□□
	220	20	3,900	12	704.0	10x9.7	PCV1CVC221MC10□□
	150	20	4,320	12	480.0	10X12.2	PCV1CVC151MC12□□
	220	14	5,050	12	528.0	10x12.2	PCV1CVC221MC12□□
	330	14	5,050	12	792.0	10x12.2	PCV1CVC331MC12□□
	22	35	2,040	10	88.0	6.3X5.7	PCV1DVC220MF60□□
	27	35	2,040	10	108.0	6.3X5.7	PCV1DVC270MF60□□
	33	45	2,000	10	132.0	8x6.7	PCV1DVC330MB70□□
	39	45	2,000	10	156.0	8x6.7	PCV1DVC390MB70□□
	47	33	2,630	10	188.0	8x6.7	PCV1DVC470MB70□□
20 1D	100	22	3,320	12	400.0	8X12.2	PCV1DVC101MB12□□
	56	40	2,600	10	224.0	10x7.7	PCV1DVC560MC80□□
	68	40	2,600	10	272.0	10X7.7	PCV1DVC680MC80□□
	82	40	2,600	10	328.0	10X7.7	PCV1DVC820MC80□□
	120	35	2,800	12	480.0	10x9.7	PCV1DVC121MC10□□
	150	20	4,320	12	600.0	10x12.2	PCV1DVC151MC12□□
	10	65	1,500	10	50.0	6.3X5.7	PCV1EVC100MF60□□
25 1E	10	60	1,600	10	50.0	8x6.7	PCV1EVC100MB70□□
	22	50	1,800	10	110.0	8x6.7	PCV1EVC220MB70□□

	33	30	3,000	12	412.5	8X12.2	PCV1EVC330MB12□□
	47	30	3,000	12	587.5	8X12.2	PCV1EVC470MB12□□
	22	50	2,200	10	110.0	10X7.7	PCV1EVC220MC80□□
	39	45	2,200	10	195.0	10X7.7	PCV1EVC390MC80□□
	47	45	2,400	12	587.5	10x9.7	PCV1EVC470MC10□□
	56	28	3,800	12	700.0	10x12.2	PCV1EVC560MC12□□

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