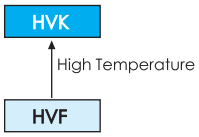
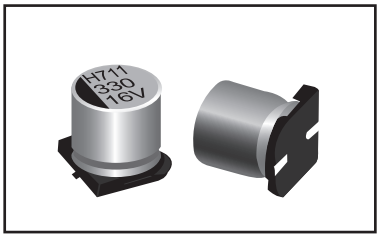
HVK SERIES

- High Voltage, Long Life, Low ESR, Large Capacitance 125℃, 2000 hours.
- Ultra Low ESR, high ripple current capability
- Applications: DC/DC Converter, Switching Power Supply, LED power etc.
- RoHS Compliant

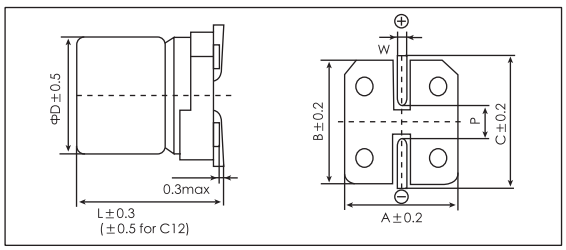




Items	Characteristics
Operating Temperature Range (℃)	-55 ~ +125
Voltage Range (V)	16 ~ 80
Capacitance Range (μF) (20℃, 120Hz)	18 ~ 1000
Capacitance Tolerance (20℃, 120Hz)	± 20%
Surge Voltage	Rated Voltage(V)×1.15
Leakage Current (μA) ※1	Please see the attached ratings list (20℃, 2min)
Dissipation Factor (20℃, 120Hz)	Please see the attached ratings list
Equivalent Series Resistance (20℃, 100kHz)	Please see the attached ratings list
Temperature Characteristics (Max Impedance Ratio at 100kHz)	$Z_{+125℃} / Z_{+20℃} \leqslant 1.25$ $Z_{-55℃} / Z_{+20℃} \leqslant 1.25$
Endurance	**2000h, Rated voltage applied at 125℃** 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)	**1000h, No-applied voltage 60℃, 90~95% RH** 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	**Flow method (260℃×5s)** Capacitance change: within ± 10% of the initial measured value Dissipation Factor (Tan δ): ⩽130% the initial specified value ESR: ⩽130% the 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℃.

Dimensions mm



(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

Size List

U_R[S.V] (V) / Cap.(μF)	16 [18]	20 [23]	25 [29]	35 [40]	40 [46]	50 [58]	63 [72]	80 [92]
18						F60		
22						F60	B70	
27							B70	
33					F60	B70		B12
39					F60	B70		B12
47			F60	F60			B12	C12
56				F60			B12	C12
68					B70			
82			F60	B70	B70	B12	C12	
100			F60	B70		B12.C12	C12	
120		F60				C12		
150			B70		B12	C12		
180		B70	B70	B12				
220		B70		B12	C12			
270				C12	C12			
330			B12	C12				
390		B12	B12					
470	B12		C12					
560	B12		C12					
680		C12						
1000	C12							

POLYMER

Ratings for **HVK** Series

U_R Code	Rated Capacitance 20℃,120Hz	Max ESR 20℃,100kHz	Rated Ripple Current 125℃,100kHz	Dissipation Factor 20℃,120Hz	Leakage Current 20℃,2min	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mArms)	(%)	(μA)	(mm)	-
16 1C	470	17	2500	12	1504	8×12.2	PCV1CVK471MB12□□
	560	17	2500	12	1792	8×12.2	PCV1CVK561MB12□□
	1000	15	2700	12	3200	10×12.2	PCV1CVK102MC12□□
20 1D	120	34	1300	12	480	6.3×5.7	PCV1DVK121MF60□□
	180	29	1600	12	720	8×6.7	PCV1DVK181MB70□□
	220	29	1600	12	880	8×6.7	PCV1DVK221MB70□□
	390	17	2400	12	1560	8×12.2	PCV1DVK391MB12□□
	680	15	2600	12	2720	10×12.2	PCV1DVK681MC12□□
25 1E	47	42	1175	12	235	6.3×5.7	PCV1EVK470MF60□□
	82	36	1255	12	410	6.3×5.7	PCV1EVK820MF60□□
	100	36	1255	12	500	6.3×5.7	PCV1EVK101MF60□□
	150	29	1600	12	750	8×6.7	PCV1EVK151MB70□□
	180	29	1600	12	900	8×6.7	PCV1EVK181MB70□□
	330	19	2325	12	1650	8×12.2	PCV1EVK331MB12□□
	390	19	2325	12	1950	8×12.2	PCV1EVK391MB12□□
	470	17	2500	12	2350	10×12.2	PCV1EVK471MC12□□
	560	17	2500	12	2800	10×12.2	PCV1EVK561MC12□□
35 1V	47	42	1175	12	329	6.3×5.7	PCV1VVK470MF60□□
	56	42	1175	12	392	6.3×5.7	PCV1VVK560MF60□□
	82	36	1400	12	574	8×6.7	PCV1VVK820MB70□□
	100	36	1400	12	700	8×6.7	PCV1VVK101MB70□□
	180	24	2000	12	1260	8×12.2	PCV1VVK181MB12□□
	220	24	2000	12	1540	8×12.2	PCV1VVK221MB12□□
	270	22	2200	12	1890	10×12.2	PCV1VVK271MC12□□
	330	22	2200	12	2310	10×12.2	PCV1VVK331MC12□□
40 1G	33	45	1150	12	264	6.3×5.7	PCV1GVK330MF60□□
	39	45	1150	12	312	6.3×5.7	PCV1GVK390MF60□□
	68	38	1350	12	544	8×6.7	PCV1GVK680MB70□□
	82	38	1350	12	656	8×6.7	PCV1GVK820MB70□□
	150	25	1950	12	1200	8×12.2	PCV1GVK151MB12□□
	220	22	2200	12	1760	10×12.2	PCV1GVK221MC12□□
	270	22	2200	12	2160	10×12.2	PCV1GVK271MC12□□
50 1H	18	48	1100	12	180	6.3×5.7	PCV1HVK180MF60□□
	22	48	1100	12	220	6.3×5.7	PCV1HVK220MF60□□
	33	42	1300	12	330	8×6.7	PCV1HVK330MB70□□
	39	42	1300	12	390	8×6.7	PCV1HVK390MB70□□
	82	20	1900	12	820	8×12.2	PCV1HVK820MB12□□
	100	30	1900	12	1000	8×12.2	PCV1HVK101MB12□□
	100	24	2150	12	1000	10×12.2	PCV1HVK101MC12□□
	120	24	2150	12	1200	10×12.2	PCV1HVK121MC12□□
	150	24	2150	12	1500	10×12.2	PCV1HVK151MC12□□
63 1J	22	54	1175	12	277	8×6.7	PCV1JVK220MB70□□
	27	54	1175	12	340	8×6.7	PCV1JVK270MB70□□
	47	31	1800	12	592	8×12.2	PCV1JVK470MB12□□
	56	31	1800	12	706	8×12.2	PCV1JVK560MB12□□
	82	27	2000	12	1033	10×12.2	PCV1JVK820MC12□□
	100	27	2000	12	1260	10×12.2	PCV1JVK101MC12□□
80 1K	33	38	1600	12	528	8×12.2	PCV1KVK330MB12□□
	39	38	1600	12	624	8×12.2	PCV1KVK390MB12□□
	47	34	1800	12	752	10×12.2	PCV1KVK470MC12□□
	56	34	1800	12	896	10×12.2	PCV1KVK560MC12□□

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