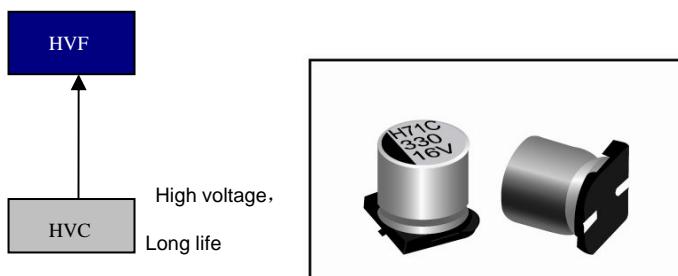


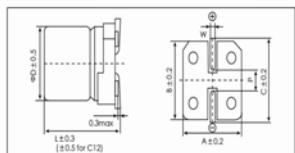
- High Voltage ,Long Life, Low ESR, Large Capacitance 105°C,3000 hours
 - Ultra Low ESR ,high ripple current capability
 - Applications: DC/DC Converter, Switching Power Supply, LED power etc.
 - RoHS Compliant



Items	Characteristics
Operating Temperature Range(°C)	-55~+105
Voltage Range (V)	16~200
Capacitance Range(μ F)(20°C,120Hz)	4.7~1200
Capacitance Tolerance (20°C,120Hz)	$\pm 20\%$
Surge Voltage	$U_R \times 1.15$
Leakage Current (μ A)※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)	$Z_{+105^\circ C} / Z_{+20^\circ C} \leq 1.25$ $Z_{-55^\circ C} / Z_{+20^\circ C} \leq 1.25$
Endurance	3000h, Rated voltage applied at 105°C Capacitance change:within $\pm 20\%$ of the initialMeasured value
	Dissipation Factor (Tan δ): $\leq 150\%$ of initial specified value ESR: $\leq 150\%$ of initial specified value DC Leakage Current: \leq the initial specified value
Damp heat(Steady state)	1000h, No-applied voltage 60°C, 90~95% RH Capacitance change:within $\pm 20\%$ of the initialMeasured value
	Dissipation Factor (Tan δ): $\leq 150\%$ of initial specified value ESR: $\leq 150\%$ of initial specified value DC Leakage Current: \leq the initial specified value(after voltage processing)
Resistance to soldering heat	FlowMethod (260±5°C X 10s) Capacitance change:within $\pm 5\%$ of the initialMeasured value
	Dissipation Factor (Tan δ): \leq the initial specified value ESR: \leq the initial specified value DC Leakage Current: \leq the initial specified value(after voltage processing)

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

Dimensions mm (unit : mm)



Size Code	$\Phi_{D \pm 0.5}$	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

HVF SERIES

Ratings for HVF Series

U _R Code	Rated Capacitance 20°C, 120Hz	Max ESR 20°C, 100kHz	Rated Ripple Current 125°C, 100kHz	Dissipation ctor 20°C, 120Hz	Leakage Current 20°C,2min	Size ΦDXL	P/N
(V)	(μF)	(mΩ)	(mAmps)	(%)	(μA)	(mm)	-
16 1C	150	25	2,800	12	480	6.3X5.7	PCV1CVF151MF60□□
	180	25	2,800	12	576	6.3X5.7	PCV1CVF181MF60□□
	270	22	3,300	12	864	8x6.7	PCV1CVF271MB70□□
	330	22	3,300	12	1,056	8x6.7	PCV1CVF331MB70□□
	470	14	4,950	12	1,504	8x12.2	PCV1CVF471MB12□□
	560	14	4,950	12	1,792	8x12.2	PCV1CVF561MB12□□
	680	14	4,950	12	2,176	8x12.2	PCV1CVF681MB12□□
	1000	12	5,400	12	3,200	10x12.2	PCV1CVF102MC12□□
	1200	12	5,400	12	3,840	10x12.2	PCV1CVF122MC12□□
20 1D	120	28	2,650	12	480	6.3X5.7	PCV1DVF121MF60□□
	150	28	2,650	12	600	6.3X5.7	PCV1DVF151MF60□□
	220	24	3,200	12	880	8x6.7	PCV1DVF221MB70□□
	270	24	3,200	12	1,080	8x6.7	PCV1DVF271MB70□□
	390	14	4,950	12	1,560	8X12.2	PCV1DVF391MB12□□
	470	14	4,950	12	1,880	8X12.2	PCV1DVF471MB12□□
	560	14	4,950	12	2,240	8x12.2	PCV1DVF561MB12□□
	680	12	5,400	12	2,720	10x12.2	PCV1DVF681MC12□□
	820	12	5,400	12	3,280	10x12.2	PCV1DVF821MC12□□
25 1E	100	30	2,550	12	500	6.3X5.7	PCV1EVF101MF60□□
	120	30	2,550	12	600	6.3X5.7	PCV1EVF121MF60□□
	180	24	3,200	12	900	8x6.7	PCV1EVF181MB70□□
	220	24	3,200	12	1,100	8X6.7	PCV1EVF221MB70□□
	330	16	4,650	12	1,650	8X12.2	PCV1EVF331MB12□□
	390	16	4,650	12	1,950	8X12.2	PCV1EVF391MB12□□
	470	16	4,650	12	2,350	8X12.2	PCV1EVF471MB12□□
	470	14	5,000	12	2,350	10x12.2	PCV1EVF471MC12□□
	560	14	5,000	12	2,800	10x12.2	PCV1EVF561MC12□□
28 1L	680	14	5,000	12	3,400	10x12.2	PCV1EVF681MC12□□
	82	33	2,450	12	459	6.3X5.7	PCV1LVF820MP60□□
	150	28	2,950	12	840	8x6.7	PCV1LVF151MB70□□
	270	18	4,350	12	1,512	8X12.2	PCV1LVF271MB12□□
	330	18	4,350	12	1,848	8X12.2	PCV1LVF331MB12□□
	470	16	4,650	12	2,632	10x12.2	PCV1LVF471MC12□□
	560	16	4,650	12	3,136	10x12.2	PCV1LVF561MC12□□
	68	35	2,350	12	435	6.3X5.7	PCV1LVF680MP60□□
	120	30	2,800	12	768	8x6.7	PCV1LVF121MB70□□
32 1F	220	20	4,000	12	1,408	8x12.2	PCV1LVF221MB12□□
	270	20	4,000	12	1,728	8X12.2	PCV1LVF271MB12□□
	390	18	4,400	12	2,496	10x12.2	PCV1LVF391MC12□□
	470	18	4,400	12	3,008	10x12.2	PCV1LVF471MC12□□
	47	35	2,350	12	392	6.3X5.7	PCV1VVF560MP60□□
	56	35	2,350	12	476	6.3X5.7	PCV1VVF680MP60□□
	100	30	2,800	12	700	8x6.7	PCV1VVF101MB70□□
	180	30	2,800	12	849	8x6.7	PCV1VVF121MB70□□
	220	20	4,000	12	1,540	8X12.2	PCV1VVF221MB12□□
35 1V	330	18	4,400	12	2,310	10x12.2	PCV1VVF331MC12□□
	390	18	4,400	12	2,730	10x12.2	PCV1VVF391MC12□□
	33	37	2,300	12	376	6.3X5.7	PCV1GVF470MF60□□
	39	32	2,700	12	656	8x6.7	PCV1GVF820MB70□□
	82	32	2,700	12	800	8x6.7	PCV1GVF101MB70□□
	150	21	3,900	12	1,400	8x12.2	PCV1GVF181MB12□□
	220	18	4,400	12	1,760	10x12.2	PCV1GVF221MC12□□
	270	18	4,400	12	2,160	10x12.2	PCV1GVF271MC12□□
	330	18	4,400	12	2,640	10x12.2	PCV1GVF331MC12□□
40 1G	33	37	2,300	12	376	6.3X5.7	PCV1GVF470MF60□□
	39	32	2,700	12	656	8x6.7	PCV1GVF820MB70□□
	82	32	2,700	12	800	8x6.7	PCV1GVF101MB70□□
	150	21	3,900	12	1,400	8x12.2	PCV1GVF181MB12□□
	220	18	4,400	12	1,760	10x12.2	PCV1GVF221MC12□□
	270	18	4,400	12	2,160	10x12.2	PCV1GVF271MC12□□
	330	18	4,400	12	2,640	10x12.2	PCV1GVF331MC12□□
	33	40	2,200	12	220	6.3X5.7	PCV1HVF220MF60□□
	33	35	2,600	12	330	8x6.7	PCV1HVF330MB70□□
50 1H	39	35	2,600	12	390	8x6.7	PCV1HVF390MB70□□
	82	25	3,800	12	820	8x12.2	PCV1HVF820MB70□□
	100	25	3,800	12	1,000	8x12.2	PCV1HVF101MB12□□
	100	20	4,300	12	1,000	10x12.2	PCV1HVF101MC12□□
	120	20	4,300	12	1,200	10x12.2	PCV1HVF121MC12□□
	150	20	4,300	12	1,500	10x12.2	PCV1HVF151MC12□□
	10	50	1,950	12	126	6.3X5.7	PCV1JVF100MF60□□
	12	50	1,950	12	151	6.3X5.7	PCV1JVF120MF60□□
	22	45	2,350	12	277	8x6.7	PCV1JVF220MB70□□
63 1J	27	45	2,350	12	340	8x6.7	PCV1JVF270MB70□□
	47	26	3,600	12	592	8X12.2	PCV1JVF470MB12□□
	56	26	3,600	12	706	8X12.2	PCV1JVF560MB12□□
	56	22	4,100	12	706	10x12.2	PCV1JVF560MC12□□
	68	22	4,100	12	857	10x12.2	PCV1JVF680MC12□□
	82	22	4,100	12	1,033	10x12.2	PCV1JVF820MC12□□
	100	22	4,100	12	1,260	10x12.2	PCV1JVF101MC12□□
	33	32	3,200	12	528	8X12.2	PCV1KVF330MB12□□
	39	32	3,200	12	624	8X12.2	PCV1KVF390MB12□□
80 1K	47	28	3,600	12	752	10x12.2	PCV1KVF470MC12□□
	56	28	3,600	12	896	10x12.2	PCV1KVF560MC12□□
	12	36	3,000	12	240	8x12.2	PCV2AVF120MB12□□
	15	36	3,000	12	300	8x12.2	PCV2AVF150MB12□□
	22	32	3,300	12	440	10x12.2	PCV2AVF220MC12□□
	27	32	3,300	12	540	10x12.2	PCV2AVF270MC12□□
	10	45	2,700	12	250	8X12.2	PCV2BVF100MB12□□
	12	45	2,700	12	300	8X12.2	PCV2BVF120MB12□□
	18	40	3,000	12	450	10x12.2	PCV2BVF180MC12□□
2C 160	22	40	3,000	12	550	10x12.2	PCV2BVF220MC12□□
	8.2	70	2,100	12	262	8X12.2	PCV2CVF82R2MB12□□
	10	60	2,400	12	320	10x12.2	PCV2CVF100MC12□□
2D 200	12	60	2,400	12	384	10x12.2	PCV2CVF120MC12□□
	4.7	120	1,600	12	188	8X12.2	PCV2DVF47R7MB12□□
	8.2	100	1,850	12	328	10x12.2	PCV2DVF82R2MC12□□
	10	100	1850	12	400	10X12.2	PCV2DVF100MC12□□

Customer products are available on request.

Frequency coefficient for ripple current

Frequency	$120\text{Hz} \leq f < 1\text{kHz}$	$1\text{kHz} \leq f < 10\text{kHz}$	$10\text{kHz} \leq f < 100\text{kHz}$	$100\text{kHz} \leq f < 500\text{kHz}$
Coefficient	0.05	0.3	0.7	1