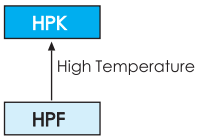
HPK SERIES

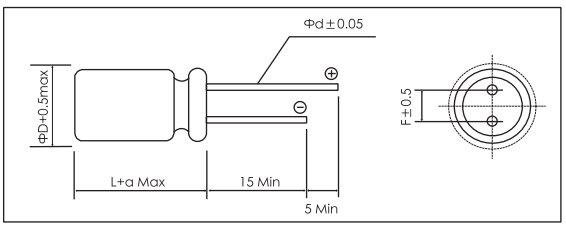
- High Voltage, Long Life, Low ESR, Large Capacitance 125℃, 2000 hours.
- Ultra Low ESR, high ripple current capability
- Applications: DC/DC Converter, Switching Power Supply, LED power etc.
- RoHS Compliant



Items	Characteristics
Operating Temperature Range (℃)	-55 ~ +125
Voltage Range (V)	16 ~ 80
Capacitance Range (μF) (20℃, 120Hz)	10 ~ 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±5℃×10s)** Capacitance change: within ± 5% of the initial measured value Dissipation Factor (Tan δ): ⩽the initial specified value ESR: ⩽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	amax	F±0.5	Φd±0.05
F05	6.3	5	1.0	2.5	0.45
F08	6.3	8	1.0	2.5	0.5
B06	8	6	1.0	3.5	0.45
B08	8	8	1.5	3.5	0.6
BAB	8	11.5	1.5	3.5	0.6
CAC	10	12.5	1.5	5.0	0.6

Size List

Cap.(μF) \ U_R [S.V] (V)	16 [18]	20 [23]	25 [29]	35 [40]	40 [46]	50 [58]	63 [72]	80 [92]
10							F05	
12							F05	
18						F05		
22						F05	F08.B06	B08
27							F08.B06	B08
33					F05	F08.B06	B08	BAB
39					F05	F08.B06	B08	BAB
47				F05		B08	BAB	CAC
56				F05		B08	BAB	CAC
68					F08.B06	B08		
82			F05	F08.B06	F08.B06	BAB	CAC	
100			F05	F08.B06	B08	BAB.CAC	CAC	
120		F05		B08	B08	CAC		
150	F05		F08.B06	B08	BAB	CAC		
180		F08	F08.B06	BAB				
220		F08.B06	B08	BAB	CAC			
270	F08.B06		B08	CAC	CAC			
330		B08	BAB	CAC				
390	B08	BAB	BAB					
470			CAC					
560	BAB		CAC					
680		CAC						
1000	CAC							

Ratings for **HPK** Series

U_R (Surge Voltage) 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	150	30	1400	12	480	6.3×5	PCR1CPK151MF05□□
	270	26	1650	12	864	6.3×8	PCR1CPK271MF08□□
	270	26	1650	12	864	8×6	PCR1CPK271MB06□□
	390	19	2200	12	1248	8×8	PCR1CPK391MB08□□
	560	16	2500	12	1792	8×11.5	PCR1CPK561MBAB□□
	1000	14	2700	12	3200	10×12.5	PCR1CPK102MCAC□□
20 1D	120	34	1300	12	480	6.3×5	PCR1DPK121MF05□□
	180	29	1600	12	720	6.3×8	PCR1DPK181MF08□□
	220	29	1600	12	880	6.3×8	PCR1DPK221MF08□□
	220	29	1600	12	880	8×6	PCR1DPK221MB06□□
	330	21	2100	12	1320	8×8	PCR1DPK331MB08□□
	390	17	2400	12	1560	8×11.5	PCR1DPK391MBAB□□
	680	15	2600	12	2720	10×12.5	PCR1DPK681MCAC□□
25 1E	82	36	1255	12	410	6.3×5	PCR1EPK820MF05□□
	100	36	1255	12	500	6.3×5	PCR1EPK101MF05□□
	150	29	1600	12	750	6.3×8	PCR1EPK151MF08□□
	180	29	1600	12	900	6.3×8	PCR1EPK181MF08□□
	150	29	1600	12	750	8×6	PCR1EPK151MB06□□
	180	29	1600	12	900	8×6	PCR1EPK181MB06□□
	220	22	2050	12	1100	8×8	PCR1EPK221MB08□□
	270	22	2050	12	1350	8×8	PCR1EPK271MB08□□
	330	19	2325	12	1650	8×11.5	PCR1EPK331MBAB□□
	390	19	2325	12	1950	8×11.5	PCR1EPK391MBAB□□
	470	17	2500	12	2350	10×12.5	PCR1EPK471MCAC□□
	560	17	2500	12	2800	10×12.5	PCR1EPK561MCAC□□
35 1V	47	42	1175	12	329	6.3×5	PCR1VPK470MF05□□
	56	42	1175	12	392	6.3×5	PCR1VPK560MF05□□
	82	36	1400	12	574	6.3×8	PCR1VPK820MF08□□
	100	36	1400	12	700	6.3×8	PCR1VPK101MF08□□
	82	36	1400	12	574	8×6	PCR1VPK820MB06□□
	100	36	1400	12	700	8×6	PCR1VPK101MB06□□
	120	29	1800	12	840	8×8	PCR1VPK121MB08□□
	150	29	1800	12	1050	8×8	PCR1VPK151MB08□□
	180	24	2000	12	1260	8×11.5	PCR1VPK181MBAB□□
	220	24	2000	12	1540	8×11.5	PCR1VPK221MBAB□□
	270	22	2200	12	1890	10×12.5	PCR1VPK271MCAC□□
	330	22	2200	12	2310	10×12.5	PCR1VPK331MCAC□□

U_R (Surge Voltage) 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)	-
40 1G	33	45	1150	12	264	6.3×5	PCR1GPK330MF05□□
	39	45	1150	12	312	6.3×5	PCR1GPK390MF05□□
	68	38	1350	12	544	6.3×8	PCR1GPK680MF08□□
	82	38	1350	12	656	6.3×8	PCR1GPK820MF08□□
	68	38	1350	12	544	8×6	PCR1GPK680MB06□□
	82	38	1350	12	656	8×6	PCR1GPK820MB06□□
	100	31	1750	12	800	8×8	PCR1GPK101MB08□□
	120	31	1750	12	960	8×8	PCR1GPK121MB08□□
	150	25	1950	12	1200	8×11.5	PCR1GPK151MBAB□□
	220	22	2200	12	1760	10×12.5	PCR1GPK221MCAC□□
	270	22	2200	12	2160	10×12.5	PCR1GPK271MCAC□□
50 1H	18	48	1100	12	180	6.3×5	PCR1HPK180MF05□□
	22	48	1100	12	220	6.3×5	PCR1HPK220MF05□□
	33	42	1300	12	330	6.3×8	PCR1HPK330MF08□□
	39	42	1300	12	390	6.3×8	PCR1HPK390MF08□□
	33	42	1300	12	330	8×6	PCR1HPK330MB06□□
	39	42	1300	12	390	8×6	PCR1HPK390MB06□□
	47	35	1650	12	470	8×8	PCR1HPK470MB08□□
	56	35	1650	12	560	8×8	PCR1HPK560MB08□□
	68	35	1650	12	680	8×8	PCR1HPK680MB08□□
	82	20	1900	12	820	8×11.5	PCR1HPK820MBAB□□
	100	30	1900	12	1000	8×11.5	PCR1HPK101MBAB□□
	100	24	2150	12	1000	10×12.5	PCR1HPK101MCAC□□
	120	24	2150	12	1200	10×12.5	PCR1HPK121MCAC□□
	150	24	2150	12	1500	10×12.5	PCR1HPK151MCAC□□
63 1J	10	60	975	12	126	6.3×5	PCR1JPK100MF05□□
	12	60	975	12	151	6.3×5	PCR1JPK120MF05□□
	22	54	1175	12	277	6.3×8	PCR1JPK220MF08□□
	27	54	1175	12	340	6.3×8	PCR1JPK270MF08□□
	22	54	1175	12	277	8×6	PCR1JPK220MB06□□
	27	54	1175	12	340	8×6	PCR1JPK270MB06□□
	33	36	1600	12	416	8×8	PCR1JPK330MB08□□
	39	36	1600	12	491	8×8	PCR1JPK390MB08□□
	47	31	1800	12	592	8×11.5	PCR1JPK470MBAB□□
	56	31	1800	12	706	8×11.5	PCR1JPK560MBAB□□
	82	27	2000	12	1033	10×12.5	PCR1JPK820MCAC□□
	100	27	2000	12	1260	10×12.5	PCR1JPK101MCAC□□
80 1K	22	43	1450	12	352	8×8	PCR1KPK220MB08□□
	27	43	1450	12	432	8×8	PCR1KPK270MB08□□
	33	38	1600	12	528	8×11.5	PCR1KPK330MBAB□□
	39	38	1600	12	624	8×11.5	PCR1KPK390MBAB□□
	47	34	1800	12	752	10×12.5	PCR1KPK470MCAC□□
	56	34	1800	12	896	10×12.5	PCR1KPK560MCAC□□

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