

## PH series High Voltage/High Reliability



### Features

- ◆ High voltage and high reliability
- ◆ Large permissible ripple current.
- ◆ Low ESR at high frequency range.

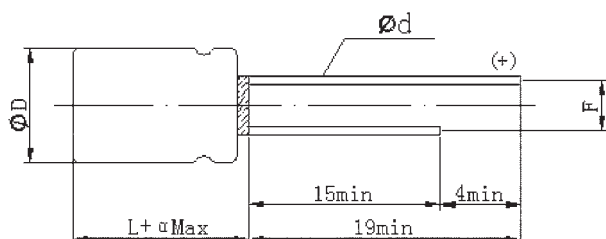
### Specifications

Item	Performance Characteristics	
Operating Temp. Range	-55°C ~ +105°C	
Rated Voltage Range	35 ~ 100V DC	
Capacitance Range	8.2 ~ 330 μF	
Capacitance Tolerance	±20% (120Hz, +20°C)	
Leakage Current	Not to exceed the values shown in Standard Ratings (Rated voltage applied, after 2 minutes at 20°C)	
Dissipation Factor (tan δ, at 20°C, 120Hz)	Not to exceed the values shown in Standard Ratings	
ESR (at 100KHz, 20°C)	Not to exceed the values shown in Standard Ratings	
Endurance 105°C, 2000h, at rated voltage	Capacitance Change	Within ±20% of the value before test
	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60°C, RH90~95%, 1000h	Capacitance Change	Within ±20% of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

### Frequency Coefficient for Ripple Current

Frequency	120Hz ≤ freq. < 1KHz	1KHz ≤ freq. < 10KHz	10KHz ≤ freq. < 100KHz	100KHz ≤ freq. < 300KHz
Coefficient	0.05	0.3	0.7	1

### Diagram of Dimensions:(unit:mm)



φ DxL	φ D+0.5	α	F ± 0.5	φ d ± 0.05
6.3x8	6.3	1.0	2.5	0.6
8x8	8.0	1.0	3.5	0.6
8x9/8x11.5	8.0	1.5	3.5	0.6
10x10	10.0	1.5	5.0	0.6
10x12.5	10.0	1.5	5.0	0.6

## Standard Ratings

W.V. (V)	Cap(μF)	Size φ DxL(mm)	L.C. (μA,2min)	tg δ (120Hz,20°C)	ESR (mΩ),100KHz)	Maximum Permissible Ripple Current(mA,r.m.s)	
35	10	6.3x8	175	0.12	40	2100	
		8x8	175	0.12	35	2300	
	22	6.3x8	154	0.12	40	2100	
		8x11.5	154	0.12	30	2890	
	33	8x8	231	0.12	30	2500	
		8x11.5	231	0.12	25	3100	
	39	8x11.5	273	0.12	25	3100	
	47	8x8	8x8	329	0.12	30	2700
			8x11.5	329	0.12	20	3600
			10x12.5	329	0.12	20	3800
	56	8x8	392	0.12	30	2700	
		8x11.5	392	0.12	20	3600	
	68	8x8	8x8	476	0.12	30	2700
			8x11.5	476	0.12	20	3600
			10x12.5	476	0.12	20	4000
	82	8x11.5	574	0.12	20	3600	
	100	8x8	8x8	700	0.12	25	2800
			8x11.5	700	0.12	20	3600
10x10			700	0.12	25	3000	
10x12.5			700	0.12	20	4000	
120	10x12.5	840	0.12	20	4400		
150	10x12.5	1050	0.12	15	4400		
180	10x12.5	1260	0.12	20	4000		
220	10x12.5	1540	0.12	20	4000		
270	10x12.5	1890	0.12	20	4000		
330	10x12.5	2310	0.12	18	4400		
50	10	8x8	100	0.12	45	2100	
	12	6.3x8	120	0.12	50	1800	
	22	8x8	220	0.12	45	2300	
	27	8x11.5	390	0.12	32	2700	
	33	8x8	8x8	330	0.12	45	2300
			8x11.5	330	0.12	32	2700
			10x12.5	330	0.12	30	3000
	39	8x11.5	8x11.5	390	0.12	32	2700
			10x12.5	390	0.12	30	3000
	47	8x11.5	8x11.5	470	0.12	30	2800
			10x12.5	470	0.12	25	3400
	56	8x11.5	8x11.5	560	0.12	30	2800
			10x10	560	0.12	30	2800
			10x12.5	560	0.12	25	3400
	68	8x9	8x9	680	0.12	40	2400
			8x11.5	680	0.12	30	2800
			10x12.5	680	0.12	25	3400
	82	10x12.5	820	0.12	25	3400	
100	10x12.5	1000	0.12	25	3400		
120	10x12.5	1200	0.12	25	3400		

Ripple Current(mA,rms)at 105°C,100KHz

W.V. (V)	Cap(μF)	Size φ DxL(mm)	L.C. (μA,2min)	tg δ (120Hz,20°C)	ESR (mΩ),100KHz)	Maximum Permissible Ripple Current(mA,r.m.s)
63	10	8x8	126	0.12	45	1900
		8x11.5	126	0.12	45	2100
	22	8x8	277.2	0.12	45	2100
	27	8x11.5	340	0.12	35	2300
	33	8x11.5	415.8	0.12	35	2500
		10x10	416	0.12	35	2700
	39	8x11.5	491.4	0.12	35	2500
		10x12.5	491.4	0.12	32	2900
	47	8x11.5	592.2	0.12	35	2500
		10x12.5	592.2	0.12	30	3000
	56	10x12.5	705.6	0.12	30	3000
68	10x12.5	856.8	0.12	30	3000	
82	10x12.5	1033.2	0.12	30	3000	
150	10x12.5	1890	0.12	30	3000	
80	10	8x8	160	0.12	45	1900
	12	8x11.5	192	0.12	38	2100
	22	10x12.5	352	0.12	35	2800
	27	10x12.5	432	0.12	35	2800
	33	8x11.5	528	0.12	38	2100
		10x12.5	528	0.12	35	2800
100	6.8	8x8	136	0.12	45	1800
	8.2	8x11.5	164	0.12	45	1800
	10	8x11.5	200	0.12	42	2100
	12	8x11.5	240	0.12	42	2100
		10x12.5	240	0.12	40	2300
	15	8x11.5	300	0.12	42	2100
	18	10x12.5	360	0.12	35	2500
	22	10x12.5	440	0.12	35	2800
	27	10x12.5	540	0.12	35	2800
33	10x12.5	660	0.12	35	2800	

Ripple Current(mA,rms)at 105°C, 100KHz