PC series

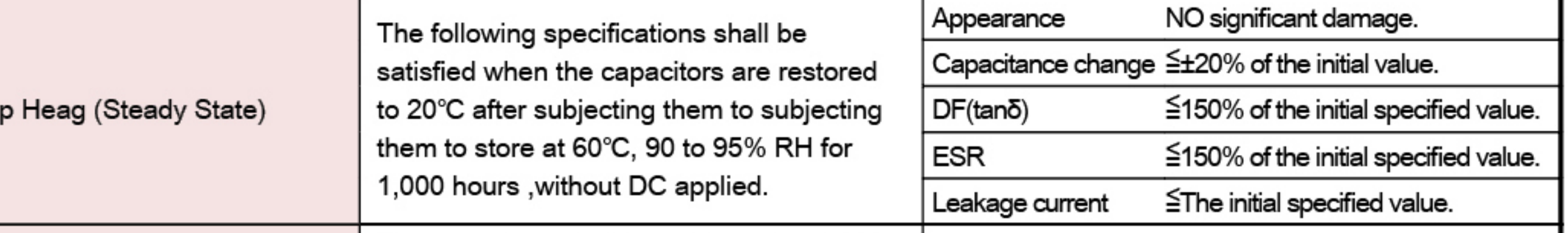
- Low ESR at high frequence range.
- Rated voltage :2.5~63V.
- Endurance:15,000hours at 105℃
- Applications:LCD Monitor,LCD-TV,D/A Inverter,SPS,D/D Converter.etc.
- ROHS compliant
- Halogen Free compliant

SPECIFICATIONS

Items	Conditions	Characteristics	
Category Temperature Range	—	-55 to +105℃	
Rated Voltage Range	—	2.5~63V	
Capacitance Tolerance	at 20℃,120HZ	±20%(M)	
Surge Voltage	at 105℃	Rated voltage ×1.15V	
Leakage Current	at 20℃after 2 minutes	I≦0.2CV or 300(μA) Whichever is greater measured,after 2minutes application of rated working voltage at +20℃.	
Dissipation Factor (tan δ)	at 20℃,120Hz	Please see the attached characteristics list	
Characteristics of Impedance at low, high temperature	at -55℃,100kHz	Z(-55℃)/Z(+20℃)	≦ 1.25
	at -25℃,100kHz	Z(-25℃)/Z(+20℃)	≦ 1.15
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃after the rated voltage is applied for 15,000 hours at 105℃.	Appearance	NO significant damage.
		Capacitance change	≦±20% of the initial value.
		DF(tanδ)	≦150% of the initial specified value.
		ESR	≦150% of the initial specified value.
		Leakage current	≦The initial specified value.
Damp Heag (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to subjecting them to store at 60℃, 90 to 95% RH for 1,000 hours ,without DC applied.	Appearance	NO significant damage.
		Capacitance change	≦±20% of the initial value.
		DF(tanδ)	≦150% of the initial specified value.
		ESR	≦150% of the initial specified value.
		Leakage current	≦The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105℃ for 30 seconds through aprotective resistor (R=1kΩ) and discharge for 5 minutes 30seconds	Appearance	NO significant damage.
		Capacitance change	≦±20% of the initial value.
		DF(tanδ)	≦150% of the initial specified value.
		ESR	≦150% of the initial specified value.
		Leakage current	≦The initial specified value.

※ Note:If any doubt arises,measure the leakage current after following voltage treatment.
Voltage treatment :DC rated voltage are applied to the capacitors for 120 minutes at 105℃.

MARKING AND DIMENSIONS



(Unit:mm)

Size Code	5X6	6.3X6	6.3X9	6.3X11	8X8	8X12	8X14	8X16	8X20	10X12	10X14	10X16
φD	5	6.3	6.3	6.3	8	8	8	8	8	10.0	10.0	10.0
L	L+1.0 max	L+1.0 max	L+1 max	L+1.0 max	L+1.5 max	L+1.0 max	L+1.0 max	L+1.0 max	L+1.5 max	L+1.0 max	L+1.0 max	L+1.5 max
φd	0.45	0.45	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
P	2	2.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0

PC SERIES STANDARD CHARACTERISITICS LIST

Rated Voltage (S.V.)	Cap (μF)	Size DxL	Leakage current (μA) max. ※2	ESR (mΩ) max. 100k to 300kHz / 20℃	Rated Ripple Current (mA rms) 100kHz / 105℃	D.F. (tanδ) max. 120Hz / 20℃
2.5 (2.9)	560	6.3×9	300	8	5,080	0.12
	560	8×8	300	7	5,820	0.12
	820	6.3×9	410	8	5,080	0.12
	1200	8×8	600	7	5,580	0.12
	1500	8×12	750	7	5,820	0.12
	2,700	10×12	1,350	7	6,100	0.12
4 (4.6)	560	6.3×9	448	8	5,080	0.12
	560	8×8	448	7	5,580	0.12
	680	8×8	544	7	5,580	0.12
	820	8×12	656	7	5,820	0.12
	2200	10×12	1,760	7	6,100	0.12
6.3 (7.2)	100	5×6	300	13	1,500	0.12
	220	5×8	300	12	2,400	0.12
	470	6.3×9	592	10	4,500	0.12
	560	6.3×9	706	10	5,080	0.12
	560	8×8	706	10	5,580	0.12
	1,000	8×12	1,260	7	5,820	0.12
	1,000	10×12	1,260	7	6,200	0.12
	2,200	10×12	2,772	7	6,200	0.12
10 (11.5)	220	6.3×9	440	10	2,820	0.12
	270	6.3×9	540	10	5,580	0.12
	560	8×8	1,120	8	5,580	0.12
	680	8×8	1,360	9	5,580	0.12
	820	8×12	1,640	9	5,820	0.12
	1,000	10×12	2,000	9	6,100	0.12
	1500	10×12	3,000	9	6,100	0.12
16 (18.4)	82	6.3×6	300	30	2,200	0.12
	100	6.3×6	320	30	2,200	0.12
	220	6.3×9	704	15	3,500	0.12
	270	6.3×9	864	15	3,500	0.12
	330	6.3×11	1,056	15	3,500	0.12
	470	8×8	1,504	13	4,500	0.12
	470	8×12	1,504	13	5,400	0.12
	470	10×12	1,504	13	6,100	0.12
	560	8×12	1,792	16	5,400	0.12
	680	10×12	2,176	16	6,100	0.12
	820	10×12	2,624	10	6,100	0.12
	1000	8x16	3,200	10	6,100	0.12
	1000	10×12	3,200	10	6,100	0.12
	1500	8×20	4,800	8	6,100	0.12
	1500	10×16	4,800	8	6,500	0.12
	1800	10×20	5,760	8	6,800	0.12
	2200	10×20	7,040	8	6,800	0.12

※ 1. Capacitance tolerance：±20%(M)

※ 2. After 2 minutes

PC SERIES STANDARD CHARACTERISITICS LIST

Rated Voltage (S.V.)	Cap (μF)	Size DxL	Leakage current (μA) max. ※2	ESR (mΩ) max. 100k to 300kHz / 20℃	Rated Ripple Current (mA rms) 100kHz / 105℃	D.F. (tanδ) max. 120Hz / 20℃
20 (23)	22	6.3×6	300	60	1,450	0.12
	82	6.3×6	328	60	1,450	0.12
	220	6.3×9	880	40	1,620	0.12
	330	8×8	1,320	40	2,400	0.12
	470	8x12	1,880	24	3,320	0.12
	820	10x12	3,280	20	3800	0.12
25 (28.8)	6.8	6.3×6	300	80	1,200	0.12
	47	6.3×6	300	40	2,000	0.12
	100	6.3×9	500	30	2150	0.12
	180	8×8	900	30	2580	0.12
	220	8x12	1100	25	3200	0.12
	330	10x10	1650	28	3800	0.12
	470	10x12	2350	25	4100	0.12
	560	10x14	2800	16	4500	0.12
	680	8X16	3400	16	4600	0.12
	820	10x14	4100	16	5000	0.12
35 (40.3)	22	6.3x6	300	70	1,450	0.12
	68	6.3x9	476	40	1,500	0.12
	82	8x7	574	60	1,800	0.12
	100	8x8	700	30	2,100	0.12
	100	8x12	700	26	2,300	0.12
	100	10x12	700	24	3,000	0.12
	150	8x8	1,050	30	2,500	0.12
	180	8x12	1,260	26	2,800	0.12
	220	10x10	1,540	26	3,000	0.12
	220	10x12	1,540	24	3,200	0.12
	330	10x12	2,310	24	3,600	0.12
	470	10x16	3,290	20	5,000	0.12
50 (57.5)	12	6.3×9	300	60	1,500	0.12
	33	6.3x9	330	60	1,500	0.12
	33	8x7	330	60	1,500	0.12
	47	8x8	470	32	1,850	0.12
	68	8x12	680	30	2,250	0.12
	47	8x12	470	30	2,250	0.12
	100	10x12	1,000	28	2,560	0.12
	150	10x12	1,500	28	2,620	0.12
63 (72.5)	22	6.3x9	300	60	1,500	0.12
	33	8x8	415	32	2,050	0.12
	33	10x10	415	32	2,200	0.12
	47	8x12	592	26	2,200	0.12
	56	10x10	705	30	2,300	0.12
	82	10x12	1,033	26	2,350	0.12
	100	10x12	1,260	25	2,550	0.12

※ 1. Capacitance tolerance : ±20%(M)

※ 2. After 2 minutes

FREDUENCY 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