CK

Series

Wide Temperature

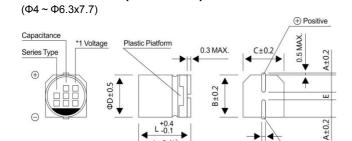
- ullet Operating with wide temperature range -40 ~ +105 $^{\circ}$ C
- Load life of 2000 hours
- Comply with the RoHS directive

■ SPECIFICATIONS

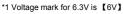


Item	Charact	eristics													
Operation Temperature Range															
Voltage Range	4 ~ 450\	/													
Capacitance Range	I	~ 6800µF													
Capacitance Tolerance	± 20 % (% (at 120Hz , 20℃)													
	WV(V) 6.3 ~ 100										160 ~ 450				
Leakage Current Dissipation Factor (MAX) (tano) (at 120Hz+A53, 20℃) Low Temp.Impedance Stability at 120Hz	Size		Ф4 ~ 10				Ф12.	5 ~ 16				Ф6.3 ~ 16	6		
	Time After 2 minutes						After 1	minutes	;		A	fter 5 minu	tes		
	Tille	(applica	ition of rated	d volta	ge)	(applic	ation of	rated v	oltage)	(6	applica	tion of rate	d voltage)		
	L.C.		0.01CV or			 ≤	≤0.03C	V or 4µ	۹,		l≤(0.04CV+10	00μΑ,		
	L.C.	whi	ichever is greater			wh	nicheve	r is grea	iter		whic	chever is g	reater		
	W	/V(V)	4	6.3	10	16	25	35	50	63	100	160~250	350~450		
. , ,		4~10Ф	0.42	0.30	0.26	0.22	0.16	0.14	0.12	0.10	0.10	0.20	0.25		
(tano) (at 120Hz+A53, 20 C)	tano	12.5~18Ф	0.45	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	0.20	5.3 ~ 16 5 minutes of rated voltage) CV+100μA, ver is greater 0~250 350~450 0.20 0.25 0.20 0.25 0.20 350~450 2 3 3 6 2 4 6 10 Deet the characteristic ore		
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				6.2	10	16	25	25	50-62	100	160-250	250-450		
Low Temp.Impedance Stability at 120Hz								_							
Stability at 120Hz	tanδ														
				17	12	10	8	5	4	3	3	6	16 inutes ated voltage) +100µA, s greater 50 350~450 0.25 0.25 50 350~450 3 6 4 10 the characterical and life characterical and life characterical at the characterical and life char		
	After 2000Hrs. (1000hrs. For Φ4 ~ Φ6.3x5.4) application of the rated voltage at 105°C, they meet the characteristics listed below.											istics			
Capacitance Tolerance Leakage Current Dissipation Factor (MAX) (tanō) (at 120Hz+A53, 20℃) Low Temp.Impedance	Capacita	ance change)		Within ±20% of initial value for capacitors of 10V or more Within ±30% of initial value for capacitors of 4V or less										
		ion Factor			200% or less of initial specified value										
	Leakage	Current			initial	specifie	d value	or less				$Φ6.3 \sim 16$ After 5 minutes lication of rated voltage) $I \le 0.04\text{CV} + 100\mu\text{A}$, whichever is greater $00 160 \sim 250 350 \sim 450 10 0.20 0.25 10 0.20 0.25$ $00 160 \sim 250 350 \sim 450 3 2 3 4 3 6 2 2 4 3 6 10$ They meet the characterist or load life characterist value for load life characterist value for load life characterist			
Shelf Life		kage Current initial specified value or less r leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics d above.													
	After ref	low solderin	g and resto	red at i	room te	emperat	ure, the	y meet	the cha	racteris	tics list	ed below.			
Basistan as to Caldarin a Hast		ance change)		-	1±10% (
Resistance to Soldering Heat		ion Factor				specifie									
	Leakage	Current			initial	specifie	d value	or less			$Φ6.3 \sim 16$ After 5 minutes application of rated voltage) $I \leq 0.04\text{CV} + 100 \mu\text{A}$, whichever is greater $\hline{ 100 160 \sim 250 350 \sim 450 \over 0.10 0.20 0.25 }$ $\hline{ 0.10 0.20 0.25 }$ $\hline{ 3 2 3 3 4 3 6 2 2 4 3 6 10 }$ $\hline{ 5^{\circ}\mathbb{C}}$, they meet the characteristic of 10V or more of 4V or less				
Marking	Black pr	int on the ca	ise top												

■ DRAWING (Unit: mm)



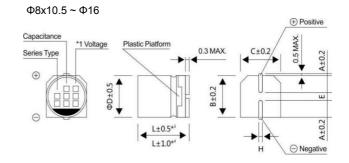
Negative



*2 Applicable to Φ6.3x7.7

*3 Applicable to $\Phi8x10.5 \sim \Phi10$

*4 Applicable to Φ12.5 ~ Φ16



ELCON

CK Series

■ DIMENSIONS(Unit:mm)

ΦDxL	4x5.4	5x5.4	6.3x5.4	6.3x7.7	8x10.5	10x10.5	10x13.5	12.5x13.5	12.5x16	16x16.5	18x16.5	18x18.5
Α	2.0	2.2	2.6	2.6	3.0	3.3	3.3	4.9	4.9	5.8	6.2	6.2
В	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0	19.0	19.0
С	4.3	5.3	6.6	6.6	8.4	10.4	10.4	13.0	13.0	17.0	19.0	19.0
E±0.2	1.0	1.4	1.9	1.9	3.1	4.7	4.7	4.7	4.7	6.4	6.4	6.4
L	5.4	5.4	5.4	7.7	10.5	10.5	13.5	13.5	16.0	16.5	16.5	18.5

■ DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

1	WV 4		1	6.3		1	0		16	25	
μF	Code	00	3	0.	J	1.	A		1C		1E
4.7	4R7							4x5.4	13	4x5.4	17
10	100							4x5.4	20	5x5.4 (4x5.4)	(20)
22	220	4	00	4x5.4	23	5x5.4	29	5x5.4	32	6.3x5.4	39
22	220	4x5.4	20	4x5.4	23	(4x5.4)	(20)	(4x5.4)	(25)	(5x5.4)	(32)
33	330	5x5.4	30	5x5.4	34	5x5.4	35	6.3x5.4	45	6.3x5.4	48
33	330	(4x5.4)	25	(4x5.4)	(30)	(4x5.4)	(30)	(5x5.4)	(35)	(5x5.4)	(35)
47	470	5x5.4	36	5x5.4	38	5x5.4	38	6.3x5.4	55	6.3x5.4	60
- 77	470	(4x5.4)	(30)	(4x5.4)	(35)			(5x5.4)	(40)	0.000.4	00
100	101	6.3x5.4	64	6.3x5.4	69	6.3x5.4	80	6.3x5.4	80	6.3x7.7	100
		(5x5.4)	(54)	(5x5.4)	(59)	(5x5.4)	(60)	1		(6.3x5.4)	(80)
										8x10.5	240
150	151	6.3x5.4	80	6.3x5.4	85	6.3x5.4	85	6.3x7.7	105	(6.3x7.7)	(120)
				6.3x7.7	120	6.3x7.7	120	8x10.5	270	,	, ,
220	221	6.3x5.4	90	(6.3x5.4)	(95)	(6.3x5.4)	(95)	(6.3x7.7)	(120)	8x10.5	270
						8x10.5	290			10x10.5	380
330	331	6.3x7.7	120	6.3x7.7	120	(6.3x7.7)	(135)	8x10.5	290	(8x10.5)	(290)
				8x10.5	320	10x10.5	380	10x10.5	380	, ,	` ,
470	471	6.3x7.7	120	(6.3x7.7)	(120)	(8x10.5)	(320)	(8x10.5)	(290)	10x10.5	380
680	681	8x10.5	320	8x10.5	350	10x10.5	380	10x10.5	380	10v12 F	400
000	001	0.00.5	320			(8x10.5)	(350)			10x13.5	400
				10x10.5	410			12.5x13.5	550		
1000	102	8x10.5	320	(0.40.5)	(0=0)	10x10.5	410	(10x13.5)	(460)	12x13.5	580
				(8x10.5)	(350)	10210.0	710	(10x10.5)	(410)		
1500	152	10x10.5	410	10x13.5	450	10x13.5	460	12x13.5	550	12.5x16	850
1000	102			(10x10.5)	(410)	10010.0				12.0010	000
2200	222	10x13.5	440	12.5x13.5	680	12.5x13.5	680	16x16.5	900	16x16.5	1050
		(10x10.5)	(410)	(10x13.5)	(560)			(12.5x16)	(750)		
3300	332	10x13.5	490	12.5x16	850	16x16.5	1000	16x16.5	1000	18x16.5	1150
				(12.5x13.5)	(810)						
4700	472	12.5x13.5 16x16.5	600 950	16x16.5	1000	16x16.5	1000	18x16.5	1225	18x18.5	1300
6800	682	(12.5x16)	(650)	18x16.5	1290	18x16.5	1290			Case size	Ripple current
8200				18x18.5	1450	18x18.5	1450	1		3430 3120	Tappic current

	WV	35		50		63	100		
μF	Code	1V		1H		1J	2A		
0.1	0R1			4x5.4	2	4x5.4	2		
0.22 –	R33	-		4x5.4	4	4x5.4	4		
0.33	17.33			4x5.4	4	4x5.4	4		
0.47	R47			4x5.4	5	4x5.4	5		
1	010			4x5.4	8	4x5.4	8	4x5.4	8
2.2	2R2			4x5.4	12	4x5.4	12	6.3x5.4	14
2.2	2112			4,5.4	12	7,5.7	12	(5x5.4)	(12)
3.3	3.3 3R3	4x5.4	13	4x5.4	14	5x5.4	47	6.3x7.7	55
0.0						0,0.1	17	(6.3x5.4)	(20)
4.7	4R7	4x5.4	17	5x5.4	20	5x5.4	20	6.3x7.7	50
		120.1		(4x5.4)	(14)	3,3.4		(6.3x5.4)	(21)
10	100	5x5.4	27	6.3x5.4	32	6.3x7.7	58	8x10.5	77
		(4x5.4)	(18)	(5x5.4)	(27)	6.3x5.4	(32)	(6.3x7.7)	(58)
22	220	6.3x5.4	44	6.3x7.7	58	8x10.5	100	10x10.5	126
22	220	(5x5.4)	(36)	(6.3x5.4)	(44)	(6.3x7.7)	(58)	(8x10.5)	(100)
33	330	6.3x5.4	50	6.3x7.7	65	8x10.5	140	10x10.5	150
		6.3x7.7	80	8x10.5	170	(10x10.5)	160	12.5x13.5	250
47	470	(6.3x5.4)	(58)	6.3x7.7	(70)	(8x10.5)	(170)	(10x13.5)	(180)
								(10x10.5)	(160)
68	680					Case size	Ripple current	12.5x13.5	300
00						Jasc 3126	Tappic current	(10x13.5)	(180)

Case size ΦDxL (mm), ripple current (mA rms) at 105 °C,120Hz

ELCON

CK Series

■ DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

	WV	3	5	5	0	6	3	10	00		160
μF	Code	1V		1H		1J		2	A	2C	
22	220									10x13.5	50
33	330									12.5x13.5	95
47	470									12.5x13.5	205
41	470									16x16.5	(240)
		8x10.5	240	10x10.5	250	12.5x13.5	400	16x16.5	450		
100	101					(10x13.5)	(350)	10x10.5	400	16x16.5	250
		(6.3x7.7)	(92)	(8x10.5)	(210)	(10x10.5)	(310)	(12.5x13.5)	(380)		
150	151	8x10.5	240	10x10.5	300	10x13.5	350				
		10x10.5	250	10x13.5	280	16x16.5	560				
220	221	(8x10.5)	(270)	(10x10.5)	(330)	(12.5x13.5)	(470)	16x16.5	550		
				16x16.5	600	16x16.5	700				
330	331	10x10.5	370	(12.5x13.5)	(490)			18x16.5	590		
		10/110/10	0.0	(12.5x13.5) (10x13.5)	(295)	(12.5x16)	(510)				
		12.5x13.5	520	16x16.5	700						
470	471	(10x13.5)	(400)	(12.5x16)	(550)	16x16.5	750	18x18.5	980		
		(10x10.5)	(370)	(12.5x13.5)	(470)	-		10/11010			
680	681	12.5x13.5	530	16x16.5	750	16x16.5	790				
		16x16.5	800			TOTALO					
1000	102	12.5x16	(600)	18x16.5	990						
1500	152	16x16.5	750							- Case size	Ripple current
2200	222	18x16.5	1050								
(manual parties of the same o	WV	20	0	25	0	35	0	40	0		450
μF	Code		 D	2	 E	2'	V	20	 G		2W
		=						10x13.5	40	10x13.5	40
3.3	3R3							(8x10.5)	(35)	(8x12.5)	(38)
								10x13.5	45	10x13.5	42
4.7	4R7			10x13.5	65	10x13.5	45	(12.5x13.5)	(48)	(12.5x13.5)	
10	100	10x13.5	75	10x13.5	70	12.5x13.5	50	12.5x13.5	50	12.5x13.5	70
22	220	12.5x13.5	105	12.5x13.5	105	16x16.5	85	16x16.5	85	16x16.5	85
33	330	12.5x13.5	120	16x16.5	180	18x16.5	100	18x16.5	100	18x16.5	100
47	470	16x16.5	220	16x16.5	220						
100	101	18x16.5	280	18x16.5	260					Case size	Ripple current
•				rma\ at 105°C							<u> </u>

[·]Case size ФDxL (mm), ripple current (mA rms) at 105°С, 120Hz

■ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

	Freque	ncy	50Hz	120Hz	300Hz	1KHz	10KHz~
	Ф4~Ф10	0.1∼68µF	0.70	1.00	1.17	1.36	1.50
	Ψ4~Ψ10	100~3300μF	0.85	1.00	1.08	1.20	1.30
Coefficient	Ф12.5~Ф18	~68µF	0.75	1.00	1.35	1.57	2.00
		100~680µF	0.80	1.00	1.23	1.34	1.50
		1000~6800µF	0.85	1.00	1.00	1.13	1.15