

CE-FS Series

105°C Standard



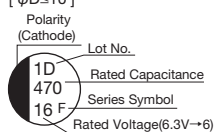
- 105°C 1,000 to 2,000hours
- Solvent proof (within 2 minutes)
- AEC-Q200

■ Specifications

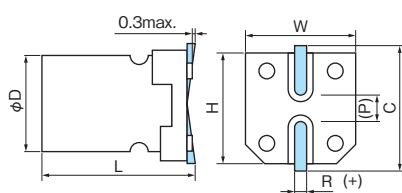
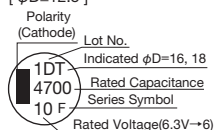
Items	Condition		Specifications								
Rated voltage (V)	—		6.3	10	16	25	35	50	63	100	
Surge voltage (V)	Room temperature		8.0	13	20	32	44	63	79	125	
Category temperature range (°C)	—		-55 to +105							-40 to +105	
Capacitance tolerance (%)	120Hz/20°C		M : ±20								
Dissipation Factor(tan δ)	tanδ(max.) 120Hz/20°C	φ4 to φ6.3	0.24	0.20	0.16	0.14	0.12	0.10	0.12	0.10	
		φ8 to φ16	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.10	
		φ18	0.34	0.30	0.26	0.22	0.18	0.16	0.14	0.10	
			Exceeding 1,000μF, +0.02 every 1,000μF								
Leakage current(LC)	μA/after 2minutes (max.), 20°C		The greater value of either 0.01CV or 3								
Impedance ratio at low temperature	Based on the value at 120Hz, +20°C	-40°C Z/Z _{20°C}	3	3	2	2	2	2	2	3	
		-55°C Z/Z _{20°C}	8	5	4	3	3	3	3	—	
Endurance	105°C rated voltage applied (With the rated ripple current)	Test	φ4 to φ6.3, φ10×7.7 : 1,000hours, φ8 to φ18 : 2,000hours								
		ΔC/C	Within ±25% of the initial value								
		tanδ	Less than 200% of the specified value								
		LC	Less than the specified value								

■ Marking, Dimensions

[φD≤10]



[φD≥12.5]



A pressure relief vent is provided
for φD=8 or bigger

(P)reference size

(Unit : mm)

D ^{±0.5}	L	W ^{±0.2}	H ^{±0.2}	C ^{±0.2}	R	P
4	5.4 ^{+0.1} _{-0.2}	4.3	4.3	5.0	0.5 to 0.8	1.0
4	6.0 ^{±0.3}	4.3	4.3	5.0	0.5 to 0.8	1.0
5	5.4 ^{+0.1} _{-0.2}	5.3	5.3	6.0	0.5 to 0.8	1.4
6.3	5.4 ^{+0.1} _{-0.2}	6.6	6.6	7.3	0.5 to 0.8	2.2
6.3	6.0 ^{±0.3}	6.6	6.6	7.3	0.5 to 0.8	2.2
6.3	7.7 ^{±0.3}	6.6	6.6	7.3	0.5 to 0.8	2.2
8	10.2 ^{±0.3}	8.3	8.3	9.0	0.7 to 1.0	3.2
10	7.7 ^{±0.3}	10.3	10.3	11.0	1.0 to 1.4	4.6
10	10.2 ^{±0.3}	10.3	10.3	11.0	1.0 to 1.4	4.6
12.5	13.5 ^{±0.5}	12.8	12.8	13.5	1.0 to 1.4	4.6
16	16.5 ^{±0.5}	16.3	16.3	17.3	1.7 to 2.1	7.0
18	16.5 ^{±1.0}	19.0	19.0	20.0	1.7 to 2.1	7.0
18	21.5 ^{±1.0}	19.0	19.0	20.0	1.7 to 2.1	7.0

Size, Rated Ripple Current

μF \ V	6.3		10		16		25		35	
4.7							4x5.4	13	4x5.4	14
10					4x5.4	18	5x5.4	20	5x5.4	21
22	4x5.4	22	5x5.4	25	5x5.4	27	6.3x5.4	36	6.3x5.4	38
33	5x5.4	27	5x5.4	30	6.3x5.4	40	6.3x5.4	44	6.3x6.0	42
47	5x5.4	33	6.3x5.4	41	6.3x5.4	48	6.3x6.0	48	6.3x6.0	49
100	6.3x5.4	50	6.3x5.4	53	6.3x5.4	60	6.3x7.7	91	6.3x7.7	84
150			6.3x6.0	62	6.3x7.7	95	8x10.2	140	8x10.2	155
									10x7.7	155
220	6.3x6.0	67	6.3x7.7	105	6.3x7.7	105	8x10.2	175	8x10.2	190
							10x7.7	175		
330	6.3x7.7	105	8x10.2	195	8x10.2	195	8x10.2	220	10x10.2	300
					10x7.7	195				
470	8x10.2	210	8x10.2	210	8x10.2	230	10x10.2	300	12.5x13.5	410
			10x7.7	210						
680	8x10.2	210			10x10.2	310			12.5x13.5	430
	10x7.7	210								
1000	8x10.2	230	10x10.2	310			12.5x13.5	460	16x16.5	700
1500	10x10.2	310			12.5x13.5	500			16x16.5	740
2200			12.5x13.5	510			16x16.5	805	18x16.5	950
2700									18x21.5	1200
3300	12.5x13.5	520			16x16.5	840	18x16.5	1040		
3900							18x21.5	1280		
4700			16x16.5	880	18x16.5	1090				
5600					18x21.5	1300				
6800	16x16.5	930	18x16.5	1150						
8200			18x21.5	1350						
10000	18x16.5	1200								
12000	18x21.5	1350								

μF \ V	50		63		100	
0.47	4x5.4	3.5	4x5.4	3.5		
1.0	4x5.4	7.0	4x5.4	7.0	4x6.0	7.0
2.2	4x5.4	11	4x5.4	11	6.3x6.0	14
3.3	4x5.4	13	5x5.4	14	6.3x6.0	20
4.7	5x5.4	16	5x5.4	16	6.3x6.0	25
10	6.3x5.4	24	6.3x5.4	24	6.3x7.7	35
22	6.3x6.0	42	6.3x7.7	49	8x10.2	84
33	6.3x7.7	60	8x10.2	112	10x10.2	133
47	6.3x7.7	63	8x10.2	119	12.5x13.5	240
68			8x10.2	126	12.5x13.5	245
82	10x7.7	140				
100	8x10.2	140	10x10.2	196	16x16.5	490
150					16x16.5	500
220	10x10.2	220	12.5x13.5	287	18x16.5	650
330	12.5x13.5	365			18x21.5	700
390	12.5x13.5	380				
470			16x16.5	630		
680			18x16.5	750		
1000	16x16.5	655	18x21.5	900		
1500	18x21.5	1100				

Please refer to page 14 for ripple current frequency coefficients.

Case size: ϕ DxL(mm)
10x7.7:CE-FSA
 ϕ 16, ϕ 18:CE-FST

Rated ripple current
mA_{rms}(120Hz, 105°C)

Part number

FS
16 CE 470 FS

Series symbol
Rated capacitance
Type symbol
Rated voltage

FSA
10 CE 470 FSA

Series symbol
Rated capacitance
Type symbol
Rated voltage

FST
10 CE 4700 FS T

Sn plating terminal option
Series symbol
Rated capacitance
Type symbol
Rated voltage

Surface Mount Type
Aluminum Electrolytic Capacitors

CE-BD
CE-BSS
CE-BS
CE-LD
CE-FSS
CE-FS
CE-FS(High Voltage)
CE-FH
CE-AX
CE-KX
CE-ZX
CE-ZC
CE-LX
CE-GA
CE-LS
CE-LH
CE-LH(High Voltage)
CE-LL
CE-LF
CE-PC
CE-PH
CE-PS
CE-PF
CE-TH
CE-JX
CE-NP
CE-FN