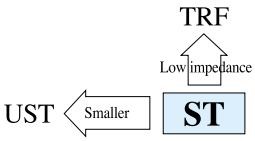
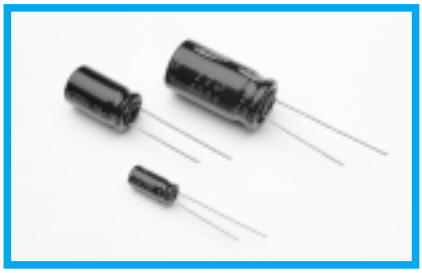
ST

Radial Lead Type

Series

● Standard series, wide temperature range





■ Specifications

Item	Performance Characterisitics
Operating	−55 ~ +105℃(6.3 ~ 100V), −40 ~ +105℃(160 ~ 400V), −25 ~ +105℃(450V)
Voltage	6.3 ~ 450V
Capacitance Range	0.1 ~ 15000㎌
Capacitance Tolerance	±20% at 120Hz, 20℃
Leakage Current	6.3 ~ 100V: I = 0.01CV or 3㎂ whichever is greater (After 2minute) 160 ~ 450V: I = 0.03CV+15㎂(CV≤1000), I = 0.02CV+25㎂(CV>1000) (After 5minute)
tan δ	(20℃, 120Hz)

Rated voltage(V)	6.3	10	16	25	35	50	63	100	160~250	350~450
tan δ (MAX.)	0.26	0.22	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.20

Add 0.02 per 1000㎌ for more than 1000㎌ items

Stability at Low Temperature (120Hz)

Rated voltage(V)	6.3	10	16	25~100	160~250	350~400	450
Z(−25℃)/Z(+20℃)	4	3	2	2	3	6	6
Z(−40℃)/Z(+20℃)	8	6	4	3	4	6	-

Load Life: After 2000hours application of DC rated working voltage at 105℃ the measurement shall meet following limits. Measurements shall be performed after 2hours exposure at room temperature

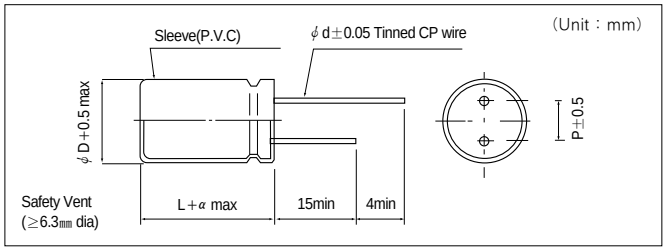
Leakage current	Initial specified value or less
Capacitance change	Within ±20% of the initial measured value
tan δ	Within 200% of the initial specified value

Shelf Life: After 1000hours at 105℃ without voltage application measurements shall meet the following limits. Measurement shall be performed after exposure for 24hours at room temperature after application of DC rated voltage to the capacitors for 30minutes.

Leakage current	Initial specified value or less
Capacitance change	Within ±20% of the initial measured value
tan δ	Within 200% of the initial specified value

Marking	Printed with white color letter on dark brown sleeve
Applicable Standards	JIS C−5141, JIS C−5102

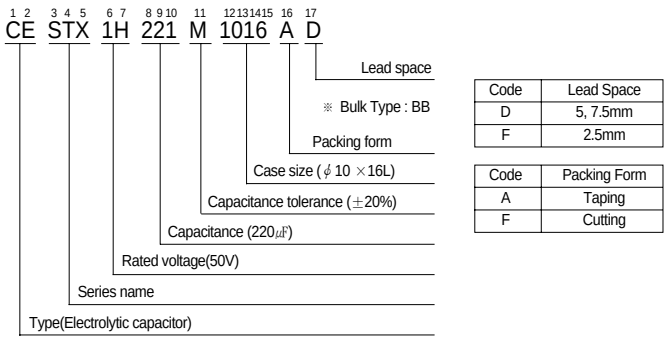
■ Dimensions



φD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	L≤16 : 1.5, L>16 : 2.0						

In case size L>25 for φ13 case sizes, lead diameter φd 0.8 will be applied.

■ Part number system



Code	Lead Space
D	5, 7.5mm
F	2.5mm

Code	Packing Form
A	Taping
F	Cutting

■ Case size table

(φD×Lmm)

W.V(VDC) / Cap(μF)	6.3 (0J)	10 (1A)	16 (1C)	25 (1E)	35 (1V)	50 (1H)	63 (1J)	100 (2A)	160 (2C)	200 (2D)	250 (2E)	350 (2V)	400 (2G)	450 (2W)
0.1 (0R1)						5×11	5×11	5×11						
0.22(R22)						5×11	5×11	5×11						
0.33(R22)						5×11	5×11	5×11						
0.47(R47)						5×11	5×11	5×11	6.3×11	6.3×11	6.3×11	8×11.5		
1 (010)						5×11	5×11	5×11	6.3×11	6.3×11	6.3×11	8×11.5	8×11.5	8×11.5
2.2 (2F2)						5×11	5×11	5×11	6.3×11	6.3×11	8×11.5	10×12.5	10×16	10×16
3.3 (3R3)						5×11	5×11	5×11	8×11.5	8×11.5	10×12.5	10×16	10×20	10×20
4.7 (4R7)						5×11	5×11	5×11	8×11.5	10×12.5	10×12.5	10×20	10×20	13×20
10 (100)			5×11	5×11	5×11	5×11	5×11	6.3×11	10×12.5	10×16	10×20	13×20	13×25	16×25
22 (220)		5×11	5×11	5×11	5×11	5×11	6.3×11	8×11.5	10×20	10×20	13×20	13×25	16×25	16×31.5
33 (330)	5×11	5×11	5×11	5×11	5×11	6.3×11	6.3×11	10×12.5	13×20	13×20	13×25	16×25	16×31.5	16×35.5
47 (470)	5×11	5×11	5×11	5×11	6.3×11	6.3×11	8×11.5	10×16	13×25	13×25	16×25	16×31.5	16×35.5	
100 (101)	5×11	5×11	6.3×11	6.3×11	8×11.5	8×11.5	10×12.5	13×20	16×25	16×31.5	16×35.5			
220 (221)	6.3×11	6.3×11	8×11.5	8×11.5	10×12.5	10×16	10×20	16×25	18×35.5					
330 (331)	6.3×11	8×11.5	8×11.5	10×12.5	10×16	10×20	13×20	16×25						
470 (471)	8×11.5	8×11.5	10×12.5	10×16	10×20	13×20	13×25	16×31.5						
1000 (102)	10×12.5	10×16	10×20	13×20	13×25	16×25	16×31.5							
2200 (222)	13×20	13×20	13×25	16×25	16×31.5	18×35.5								
3300 (332)	13×20	13×25	16×25	16×31.5	18×35.5									
4700 (472)	16×25	16×25	16×31.5	18×35.5										
6800 (682)	16×25	16×31.5	18×35.5											
10000 (103)	16×31.5	18×35.5												
15000 (153)	18×35.5													

■ Maximum permissible ripple current

(at 105℃, 120Hz:mArms)

W.V / μF	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
0.1						5	5	5						
0.22						7	8	8						
0.33						9	10	10						
0.47						11	12	12	11	11	11	11		
1						16	17	18	16	16	16	17	21	18
2.2						24	26	27	24	24	29	34	39	30
3.3						30	32	34	36	36	40	48	53	47
4.7						36	38	40	43	48	48	58	58	52
10			39	41	45	52	55	65	70	79	79	100	108	92
22		45	57	61	66	78	91	118	129	129	153	160	179	148
33	50	63	71	75	82	106	112	162	188	188	203	219	237	207
47	70	75	84	90	108	127	163	218	242	242	270	283	289	
100	102	110	137	146	193	226	263	404	394	426	436			
220	168	181	248	265	318	422	491	724	690					
330	206	221	304	361	441	571	712	850						
470	300	323	403	487	580	785	893	1096						
1000	487	592	733	928	1082	1380	1571							
2200	900	995	1219	1445	1597	1998								
3300	1062	1254	1478	1725	2025									
4700	1429	1636	1783	2162										
6800	1668	1961	2326	2578										
10000	2005	2307												
15000	2378													