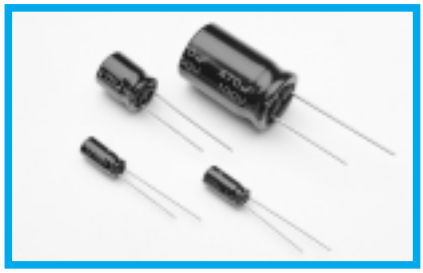
UST

Radial Lead Type

Series

- Small case size than ST seriesWide temperature range

USL (High temperature) **UST** (Smaller) ST



■ Specifications

Item	Performance Characterisitics
Operating	−55 ~ +105℃(6.3 ~ 100V), −40~ +105℃(160 ~400V), −25~ +105℃(450V)
Voltage	6.3 ~ 450V
Capacitance Range	1.0 ~ 22000㎌
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.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	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	35	50~100	160~200	250~350	400	450
Z(−25℃)/Z(+20℃)	5	4	3	2	2	2	3	4	6	6
Z(−40℃)/Z(+20℃)	10	8	6	4	3	3	4	6	8	
Z(−55℃)/Z(+20℃)	14	12	10	8	6	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.

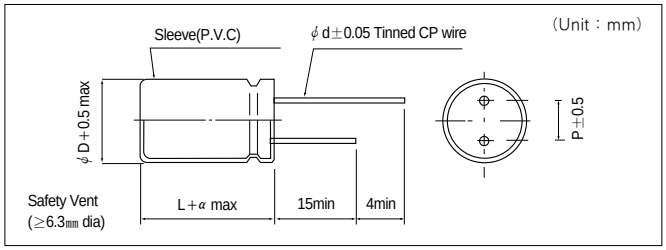
Leakage current	Initial specified value or less
Capacitance change	Within ±20% of the initial measured value
tan δ	Within 200% of the initial specified value

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

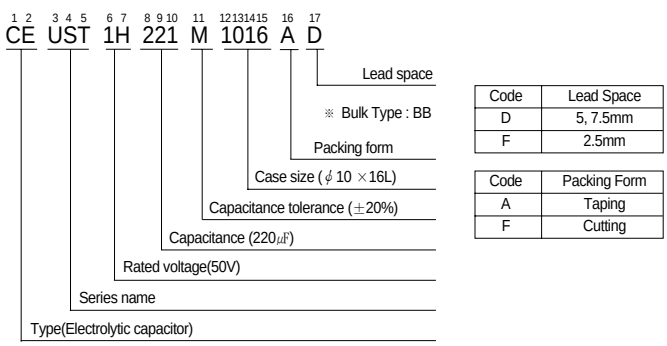
■ Dimensions



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)
1 (010)						5×11	5×11	5×11	6.3×11	6.3×11	6.3×11			
2.2 (2F2))						5×11	5×11	5×11	6.3×11	6.3×11	6.3×11	8×11.5	8×11.5	10×12.5
3.3 (3R3)						5×11	5×11	5×11	6.3×11	6.3×11	8×11.5	10×12.5	10×12.5	10×16
4.7 (4R7)						5×11	5×11	5×11	6.3×11	8×11.5	8×11.5	10×12.5	10×16	10×20
10 (100)						5×11	5×11	6.3×11	10×12.5	10×12.5	10×16	10×20	10×20	13×20
22 (220)						5×11	5×11	8×11.5	10×16	10×20	10×20	13×20	13×25	16×25
33 (330)						5×11	6.3×11	8×11.5	10×20	10×20	13×20	13×25	16×25	16×31.5
47 (470)				5×11	5×11	6.3×11	8×11.5	10×12	10×20	13×20	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	10×12.5	10×20	13×25	16×25	16×31.5	18×31.5		
220 (221)	5×11	6.3×11	6.3×11	8×11.5	8×11.5	10×16	10×20	13×25	16×31.5	18×35.5				
330 (331)	6.3×11	6.3×11	8×11.5	10×12.5	10×16	10×20	13×20	16×25	18×35.5					
470 (471)	6.3×11	8×11.5	8×11.5	10×12.5	10×16	13×20	13×20	16×31.5						
1000 (102)	8×11.5	10×12.5	10×16	10×20	13×20	13×25	16×25	18×40						
2200 (222)	10×20	10×20	13×20	13×25	16×25	16×35.5								
3300 (332)	10×20	13×20	13×25	16×25	16×35.5	18×35.5								
4700 (472)	13×20	13×25	16×25	16×31.5	18×35.5									
6800 (682)	13×25	16×25	16×31.5	18×35.5										
10000 (103)	16×25	16×35.5	18×35.5											
15000 (153)	16×35.5	18×35.5												
22000 (223)	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
1						16	17	18	16	16	16			
2.2						24	26	27	24	24	24	29	29	26
3.3						29	32	34	29	29	35	35	39	32
4.7						35	38	40	35	43	43	47	53	48
10						51	56	59	70	70	79	86	86	84
22						76	83	97	117	129	129	151	163	150
33						93	113	145	158	158	188	199	223	199
47				90	97	124	135	193	224	224	242	266	287	254
100		108	118	146	157	220	242	351	353	394	426	457		
220	148	177	194	266	284	364	451	665	605	690				
330	201	217	291	325	387	504	609	783	845					
470	240	317	347	432	522	663	860	1043						
1000	428	514	637	785	994	1236	1418	2030						
2200	772	851	1095	1254	1486	1835								
3300	979	1141	1300	1628	1982	2243								
4700	1218	1444	1704	1945	2308									
6800	1541	1769	2074	2351										
10000	1858	2162	2533											
15000	2218	2579												
22000	2770													