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EYANG TECHNOLOGY DEVELOPMENT CO.,LTD

Multilayer Ceramic Chip Capacitors for General Purpose Model selection reference book

ADD: EYANG Buiding, No.13 Gaoxin North 4th Rd, Songpingshan Community,
Xili Subdistrict, Nanshan District, Shenzhen, Guangdong province, China

Postcode: 518057 TEL: 86-755-86252187 FAX: 86-755-86252237

Mark: The Model selection reference book is for design reference only.

Multilayer Ceramic Chip Capacitors for General Purpose**1. Scope**

This specification is applicable to the Multilayer Ceramic Chip Capacitors (MLCC) for general use.

1.1 Temperature Characteristics

Class1 (Temperature Compensating Type): C0G

Class2 (High dielectric constant type): X7R\X7T\X7S\X6S\X6T\X5R

1.2 Size Code: A8A4(008004)\0105(01005)\0201\0402\0603\0805\1206\1210

1.3 Capacitance: 0.1pF~220μF

2. Part Number System

C	0201	C0G	101	J	500	N	I	A
① Series Code	② Size Code	③ Temperature Characteristics	④ Nominal Capacitance	⑤ Capacitance Tolerance	⑥ Rated Voltage	⑦ Termination Type	⑧ Packaging Code	⑨ Thickness Code

① **Series Code** C - Multilayer Ceramic Chip Capacitors for General Purpose

② **Size Code** (Unit:mm)

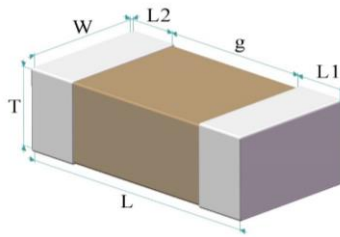


Fig.1 Structure & Dimension

Size Code	L	W	L1,L2	g	T	Thickness Code
A8A4	0.25±0.013	0.125±0.013	0.05 ~ 0.10	0.05min.	0.125±0.013	1
0105	0.40±0.02	0.20±0.02	0.07 ~ 0.13	0.13min.	0.20±0.02	Z
0201	0.60±0.03	0.30±0.03	0.10 ~ 0.20	0.20min.	0.30±0.03	A
0201	0.60+0.05/-0.03	0.30+0.05/-0.03	0.10 ~ 0.20	0.20min.	0.30+0.05/-0.03	J
0201	0.60±0.09	0.30±0.09	0.10 ~ 0.20	0.20min.	0.30±0.09	F
0201	0.60+0.10/-0.03	0.30+0.10/-0.03	0.10~0.20	0.20min.	0.30+0.10/-0.03	X
0201	0.60±0.09	0.30±0.09	0.10~0.20	0.20min.	0.50±0.05	B
0402	1.00+0.20/-0.05	0.50+0.20/-0.05	0.15 ~ 0.35	0.30min.	0.30±0.03	A
0402	1.00±0.05	0.50±0.05	0.15 ~ 0.35	0.30min.	0.50±0.05	B
0402	1.00+0.15/-0.05	0.50+0.15/-0.05	0.15 ~ 0.35	0.30min.	0.50+0.15/-0.05	N
0402	1.00+0.20/-0.05	0.50+0.20/-0.05	0.15 ~ 0.35	0.30min.	0.50+0.20/-0.05	C
0402	1.00+0.30/-0.05	0.50+0.30/-0.05	0.15 ~ 0.35	0.30min.	0.50+0.30/-0.05	U
0603	1.60+0.20/-0.10	0.80+0.20/-0.10	0.20 ~ 0.50	0.50min.	0.45±0.05	S
0603	1.60±0.10	0.80±0.10	0.20 ~ 0.50	0.50min.	0.70±0.10	U
0603	1.60±0.10	0.80±0.10	0.20 ~ 0.50	0.50min.	0.80±0.10	D
0603	1.60+0.20/-0.1	0.80+0.20/-0.1	0.20 ~ 0.50	0.50min.	0.80+0.20/-0.10	K
0603	1.60±0.25	0.80±0.25	0.20 ~ 0.50	0.50min.	0.80±0.25	4
0603	1.60+0.30/-0	0.80+0.30/-0	0.20 ~ 0.50	0.50min.	0.80+0.30/-0	W
0603	1.60±0.30	0.80±0.30	0.20 ~ 0.50	0.50min.	0.80±0.30	6
0805	2.00±0.10	1.25±0.10	0.20 ~ 0.70	0.70min.	0.60±0.10	C
0805	2.00±0.20	1.25±0.20	0.20 ~ 0.70	0.70min.	0.85±0.15	K

Size Code	L	W	L1,L2	g	T	Thickness Code
0805	2.00±0.20	1.25±0.20	0.20 ~ 0.70	0.70min.	0.85+0.15/-0.35	Y
0805	2.00±0.10	1.25±0.10	0.20 ~ 0.70	0.70min.	1.25±0.10	G
0805	2.00±0.20	1.25±0.20	0.20 ~ 0.70	0.70min.	1.25±0.20	H
0805	2.00+0.25/-0.15	1.25+0.25/-0.15	0.20 ~ 0.70	0.50min.	1.25+0.25/-0.15	S
1206	3.20±0.15	1.60±0.15	0.30~0.80	1.50 min.	0.85±0.10	E
1206	3.20±0.15	1.60±0.15	0.30~0.80	1.50 min.	0.85+0.15/-0.35	Y
1206	3.20±0.20	1.60±0.20	0.30~0.80	1.50 min.	1.15±0.15	O
1206	3.20±0.20	1.60±0.20	0.30~0.80	1.50 min.	1.60±0.20	L
1206	3.20±0.30	1.60±0.30	0.30~0.80	1.50 min.	1.60±0.30	P
1210	3.20±0.20	2.50±0.20	0.30~0.90	1.50 min.	1.60±0.20	L
1210	3.20±0.20	2.50±0.20	0.30~0.90	1.50 min.	2.00±0.20	Q
1210	3.20±0.30	2.50±0.20	0.30~0.90	1.50 min.	2.50±0.20	R
1210	3.20±0.40	2.50±0.30	0.30~0.90	1.50 min.	2.50±0.30	3

③ Temperature Characteristics

Temperature Characteristics	Operating Temp. Range	Temperature Characteristics		
		Temp. coeff. or Cap. Change	Temp. Range	Ref. Temp.
C0G	-55°C~125°C	0±30ppm/°C	25°C~125°C	25°C
X7R	-55°C~125°C	±15%	-55°C~125°C	25°C
X7S	-55°C ~ 125°C	±22%	-55°C ~ 125°C	25°C
X7T	-55°C~125°C	+22%/-33%	-55°C~125°C	25°C
X6S	-55°C~105°C	±22%	-55°C~105°C	25°C
X6T	-55°C~105°C	+22%/-33%	-55°C~105°C	25°C
X5R	-55°C~85°C	±15%	-55°C~85°C	25°C

④ Nominal Capacitance (Unit: pF) $1\text{pF}=10^{-3}\text{nF}=10^{-6}\mu\text{F}$

Example :R47=0.47 pF ,2R2=2.2 pF ,120=12×10⁰=12pF, 104=10×10⁴=100000 pF=100 nF ,

Class1(C0G) Capacitance Step in E24 series. Capacitance: See Table3-1

Class2(X7R\X7T\X7S\X6S\X6T\X5R) Capacitance Step in E12 series. Capacitance : See Table3-2

⑤ Capacitance Tolerance

Code	Capacitance Tolerance	Code	Capacitance Tolerance
P	±0.02pF	K	±10%
A	±0.05pF	L	±15%
B	±0.1pF	M	±20%
C	±0.25pF	N	±30%
D	±0.5pF	X	±40%
F	±1%	S	+50%/-20%
G	±2%	Z	+80%/-20%
J	±5%	Y	+150%/-20%

⑥ Rated Voltage

Code	Voltage Values	Code	Voltage Values
2R5	2.5V	250	25V
4R0	4.0V	350	35V
6R3	6.3V	500	50V
100	10V	630	63V
160	16V		

⑦ Termination Type

Code	Terminal Electrodes	Plating Material
N	Cu	Ni/Sn
P	Cu+AgPd or Cu+AgPdCu	-
C	Cu	Cu
K	Cu	Ni/Au
R	Cu/Ag (Resin)	Ni/Sn

⑧ Packaging Code See Table 4.

Table 3-1 Capacitance Table (Class1-C0G)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
1	C	C0G	A8A4	25V	1	0.2pF~33pF
2	C	C0G	A8A4	16V	1	0.2pF~33pF
3	C	C0G	0105	50V	Z	0.2pF~100pF
4	C	C0G	0105	25V	Z	0.2pF~220pF
5	C	C0G	0105	16V	Z	0.2pF~220pF
6	C	C0G	0105	10V	Z	0.2pF~220pF
7	C	C0G	0201	50V	A	0.1pF~1nF
8	C	C0G	0201	25V	A	0.1pF~1nF
9	C	C0G	0201	16V	A	0.1pF~1nF
10	C	C0G	0402	50V	B	0.1pF~4.7nF
11	C	C0G	0402	50V	N	2.4nF~4.7nF
12	C	C0G	0402	25V	B	0.1pF~4.7nF
13	C	C0G	0402	25V	N	2.4nF~10nF
14	C	C0G	0402	16V	N	2.4nF~10nF
15	C	C0G	0402	16V	B	0.1pF~4.7nF
16	C	C0G	0603	50V	D	1pF~10nF
17	C	C0G	0603	25V	D	1pF~10nF
18	C	C0G	0603	16V	D	1pF~10nF
19	C	C0G	0805	50V	C	10pF~3.9nF
20	C	C0G	0805	50V	K	4.7nF~15nF
21	C	C0G	0805	50V	G	18nF~47nF
22	C	C0G	0805	50V	H	18nF~47nF
23	C	C0G	0805	25V	C	10pF~3.9nF
24	C	C0G	0805	25V	K	4.7nF~15nF
25	C	C0G	0805	25V	G	18nF~68nF
26	C	C0G	0805	25V	H	18nF~68nF
27	C	C0G	1206	50V	E	10nF~100nF
28	C	C0G	1206	50V	O	47nF
29	C	C0G	1206	50V	L	56nF~220nF
30	C	C0G	1206	25V	E	10nF~100nF
31	C	C0G	1206	25V	O	47nF
32	C	C0G	1206	25V	L	56nF~220nF
33	C	C0G	1206	16V	E	10nF~100nF
34	C	C0G	1206	16V	O	47nF
35	C	C0G	1206	16V	L	56nF~220nF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
1	C	X7R	0105	25V	Z	51pF~1nF
2	C	X7R	0105	16V	Z	51pF~1nF
3	C	X7R	0105	10V	Z	51pF~1nF
4	C	X7R	0201	50V	A	100pF~10nF
5	C	X7R	0201	25V	A	100pF~10nF
6	C	X7R	0201	16V	A	100pF~22nF
7	C	X7R	0201	10V	A	100pF~22nF
8	C	X7R	0201	6.3V	A	100pF~22nF
9	C	X7R	0402	50V	B	100pF~82nF
10	C	X7R	0402	50V	N	33nF~100nF
11	C	X7R	0402	50V	C	100nF
12	C	X7R	0402	25V	B	100pF~100nF
13	C	X7R	0402	25V	N	100nF~220nF
14	C	X7R	0402	25V	N	470nF
15	C	X7R	0402	16V	B	100pF~100nF
16	C	X7R	0402	16V	N	100nF~470nF
17	C	X7R	0402	10V	B	100pF~220nF
18	C	X7R	0402	10V	N	100nF~470nF
19	C	X7R	0402	6.3V	B	100pF~100nF
20	C	X7R	0402	6.3V	N	100nF~470nF
21	C	X7R	0402	6.3V	N	1μF
22	C	X7R	0603	50V	D	220pF~1μF
23	C	X7R	0603	50V	K	220pF~1μF
24	C	X7R	0603	35V	D	1μF
25	C	X7R	0603	25V	D	10nF~1μF
26	C	X7R	0603	25V	K	100nF~470nF
27	C	X7R	0603	25V	K	1μF
28	C	X7R	0603	16V	D	100nF~1μF
29	C	X7R	0603	16V	K	1μF
30	C	X7R	0603	16V	K	2.2μF
31	C	X7R	0603	10V	D	100nF~1μF
32	C	X7R	0603	10V	K	2.2μF
33	C	X7R	0603	6.3V	D	100nF~1μF
34	C	X7R	0603	6.3V	D	2.2μF
35	C	X7R	0603	6.3V	K	2.2μF
36	C	X7R	0603	6.3V	K	4.7μF
37	C	X7R	0603	6.3V	K	10μF
38	C	X7R	0805	50V	Y	220pF~100nF
39	C	X7R	0805	50V	H	100nF~1μF
40	C	X7R	0805	50V	H	2.2μF
41	C	X7R	0805	35V	H	4.7μF
42	C	X7R	0805	25V	H	220nF~4.7μF
43	C	X7R	0805	16V	H	1μF
44	C	X7R	0805	16V	H	2.2μF
45	C	X7R	0805	16V	H	4.7μF
46	C	X7R	0805	16V	H	10μF
47	C	X7R	0805	10V	H	4.7μF
48	C	X7R	0805	10V	H	10μF
49	C	X7R	0805	6.3V	H	10μF
50	C	X7R	1206	63V	L	1μF
51	C	X7R	1206	50V	Y	100nF
52	C	X7R	1206	50V	L	100nF~1μF
53	C	X7R	1206	50V	L	2.2μF~4.7μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
54	C	X7R	1206	25V	L	10μF
55	C	X7R	1206	25V	L	2.2μF
56	C	X7R	1206	25V	L	4.7μF
57	C	X7R	1206	16V	O	1μF
58	C	X7R	1206	16V	L	2.2μF
59	C	X7R	1206	16V	L	10μF
60	C	X7R	1210	50V	3	10μF
61	C	X7R	1210	25V	R	22μF
62	C	X7R	1210	16V	R	22μF
63	C	X7R	1210	10V	R	47μF
64	C	X5R	A8A4	10V	1	100pF~680pF
65	C	X5R	A8A4	6.3V	1	1nF~10nF
66	C	X5R	A8A4	6.3V	1	22nF
67	C	X5R	A8A4	4.0V	1	1nF~10nF
68	C	X5R	A8A4	4.0V	1	22nF
69	C	X5R	0105	16V	Z	51pF~10nF
70	C	X5R	0105	10V	Z	51pF~100nF
71	C	X5R	0105	6.3V	Z	150pF~100nF
72	C	X5R	0105	6.3V	Z	220nF
73	C	X5R	0105	6.3V	Z	470nF
74	C	X5R	0105	4.0V	Z	15nF~100nF
75	C	X5R	0105	4.0V	Z	220nF
76	C	X5R	0201	50V	A	100pF~15nF
77	C	X5R	0201	35V	X	18nF~100nF
78	C	X5R	0201	25V	A	100pF~100nF
79	C	X5R	0201	25V	J	100nF~220nF
80	C	X5R	0201	25V	F	100nF~470nF
81	C	X5R	0201	25V	X	100nF~470nF
82	C	X5R	0201	16V	A	150pF~150nF
83	C	X5R	0201	16V	J	100nF~220nF
84	C	X5R	0201	16V	X	330nF~820nF
85	C	X5R	0201	16V	X	1μF
86	C	X5R	0201	10V	A	150pF~120nF
87	C	X5R	0201	10V	J	100nF~470nF
88	C	X5R	0201	10V	J	1μF
89	C	X5R	0201	10V	F	1μF
90	C	X5R	0201	10V	F	2.2μF
91	C	X5R	0201	10V	X	330nF~820nF
92	C	X5R	0201	10V	X	1μF
93	C	X5R	0201	10V	X	2.2μF
94	C	X5R	0201	6.3V	A	150pF~220nF
95	C	X5R	0201	6.3V	J	100nF~1μF
96	C	X5R	0201	6.3V	J	2.2μF
97	C	X5R	0201	6.3V	F	2.2μF
98	C	X5R	0201	6.3V	X	680nF~1μF
99	C	X5R	0201	6.3V	X	2.2μF
100	C	X5R	0201	6.3V	B	4.7μF
101	C	X5R	0201	4.0V	J	470nF~680nF
102	C	X5R	0201	4.0V	J	1μF
103	C	X5R	0201	4.0V	X	680nF~1μF
104	C	X5R	0201	4.0V	X	2.2μF~4.7μF
105	C	X5R	0402	50V	B	100pF~330nF
106	C	X5R	0402	50V	N	27nF~47nF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
107	C	X5R	0402	50V	N	470nF
108	C	X5R	0402	50V	C	56nF~100nF
109	C	X5R	0402	50V	C	1μF
110	C	X5R	0402	35V	C	56nF~100nF
111	C	X5R	0402	35V	C	1μF
112	C	X5R	0402	25V	B	120pF~470nF
113	C	X5R	0402	25V	B	1μF
114	C	X5R	0402	25V	N	82nF~820nF
115	C	X5R	0402	25V	N	2.2μF
116	C	X5R	0402	25V	C	2.2μF
117	C	X5R	0402	25V	C	4.7μF
118	C	X5R	0402	16V	B	120pF~1μF
119	C	X5R	0402	16V	N	100nF~2.2μF
120	C	X5R	0402	16V	C	2.2μF
121	C	X5R	0402	16V	C	4.7μF
122	C	X5R	0402	10V	B	120pF~820nF
123	C	X5R	0402	10V	B	1μF
124	C	X5R	0402	10V	B	2.2μF
125	C	X5R	0402	10V	N	100nF~820nF
126	C	X5R	0402	10V	N	2.2μF
127	C	X5R	0402	10V	N	4.7μF
128	C	X5R	0402	10V	C	1μF~4.7μF
129	C	X5R	0402	10V	C	10μF
130	C	X5R	0402	10V	U	10μF
131	C	X5R	0402	10V	U	22μF
132	C	X5R	0402	6.3V	A	4.7μF
133	C	X5R	0402	6.3V	B	120pF~1μF
134	C	X5R	0402	6.3V	B	2.2μF
135	C	X5R	0402	6.3V	N	100nF~4.7μF
136	C	X5R	0402	6.3V	C	1μF
137	C	X5R	0402	6.3V	C	2.2μF~4.7μF
138	C	X5R	0402	6.3V	C	10μF
139	C	X5R	0402	6.3V	C	22μF
140	C	X5R	0402	6.3V	U	10μF
141	C	X5R	0402	6.3V	U	22μF
142	C	X5R	0402	4.0V	C	10μF
143	C	X5R	0402	4.0V	C	22μF
144	C	X5R	0402	4.0V	U	10μF
145	C	X5R	0402	2.5V	U	22μF
146	C	X5R	0603	50V	D	220pF~1μF
147	C	X5R	0603	50V	D	2.2μF
148	C	X5R	0603	50V	K	2.2μF
149	C	X5R	0603	35V	D	680nF~1μF
150	C	X5R	0603	35V	K	4.7μF
151	C	X5R	0603	35V	K	10μF
152	C	X5R	0603	25V	S	680nF~2.2μF
153	C	X5R	0603	25V	D	100nF~3.9μF
154	C	X5R	0603	25V	K	4.7μF
155	C	X5R	0603	25V	K	10μF
156	C	X5R	0603	16V	S	680nF~2.2μF
157	C	X5R	0603	16V	D	220nF~3.9μF
158	C	X5R	0603	16V	U	22μF
159	C	X5R	0603	16V	K	4.7μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
160	C	X5R	0603	16V	K	10μF
161	C	X5R	0603	16V	6	22μF
162	C	X5R	0603	10V	S	4.7μF
163	C	X5R	0603	10V	D	680nF~4.7μF
164	C	X5R	0603	10V	K	3.3μF
165	C	X5R	0603	10V	K	5.6μF
166	C	X5R	0603	10V	K	10μF
167	C	X5R	0603	10V	K	22μF
168	C	X5R	0603	10V	4	22μF
169	C	X5R	0603	10V	W	22μF
170	C	X5R	0603	6.3V	D	2.2μF~10μF
171	C	X5R	0603	6.3V	K	4.7μF
172	C	X5R	0603	6.3V	K	10μF
173	C	X5R	0603	6.3V	K	22μF
174	C	X5R	0603	6.3V	K	47μF
175	C	X5R	0603	6.3V	W	22μF
176	C	X5R	0603	4.0V	K	10μF
177	C	X5R	0603	4.0V	K	22μF~47μF
178	C	X5R	0805	50V	Y	220pF~2.2μF
179	C	X5R	0805	50V	H	100nF~4.7μF
180	C	X5R	0805	50V	H	10μF
181	C	X5R	0805	35V	Y	680nF~2.2μF
182	C	X5R	0805	35V	H	680nF~4.7μF
183	C	X5R	0805	35V	H	10μF
184	C	X5R	0805	25V	Y	680nF~10μF
185	C	X5R	0805	25V	H	220nF~10μF
186	C	X5R	0805	25V	H	22μF
187	C	X5R	0805	16V	Y	1μF~10μF
188	C	X5R	0805	16V	Y	22μF
189	C	X5R	0805	16V	H	1μF~10μF
190	C	X5R	0805	16V	H	22μF
191	C	X5R	0805	10V	Y	2.2μF~10μF
192	C	X5R	0805	10V	Y	22μF
193	C	X5R	0805	10V	H	2.2μF~10μF
194	C	X5R	0805	10V	H	22μF~47μF
195	C	X5R	0805	6.3V	Y	2.2μF~10μF
196	C	X5R	0805	6.3V	Y	22μF~47μF
197	C	X5R	0805	6.3V	H	2.2μF~10μF
198	C	X5R	0805	6.3V	H	22μF~100μF
199	C	X5R	0805	4.0V	Y	22μF~47μF
200	C	X5R	0805	4.0V	H	47μF~100μF
201	C	X5R	1206	50V	Y	680nF~4.7μF
202	C	X5R	1206	50V	L	680nF~10μF
203	C	X5R	1206	35V	Y	2.2μF
204	C	X5R	1206	35V	Y	4.7μF
205	C	X5R	1206	25V	P	47μF
206	C	X5R	1206	25V	L	4.7μF~10μF
207	C	X5R	1206	25V	L	22μF
208	C	X5R	1206	16V	Y	4.7μF~10μF
209	C	X5R	1206	16V	Y	22μF
210	C	X5R	1206	16V	L	4.7μF~10μF
211	C	X5R	1206	16V	L	22μF
212	C	X5R	1206	16V	P	47μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
213	C	X5R	1206	10V	O	22 μ F
214	C	X5R	1206	10V	L	22 μ F~47 μ F
215	C	X5R	1206	10V	P	100 μ F
216	C	X5R	1206	6.3V	O	22 μ F~47 μ F
217	C	X5R	1206	6.3V	L	22 μ F~100 μ F
218	C	X5R	1210	50V	R	10 μ F
219	C	X5R	1210	25V	L	680nF~10 μ F
220	C	X5R	1210	25V	Q	680nF~10 μ F
221	C	X5R	1210	25V	R	22 μ F
222	C	X5R	1210	25V	3	47 μ F
223	C	X5R	1210	16V	L	4.7 μ F~10 μ F
224	C	X5R	1210	16V	L	22 μ F
225	C	X5R	1210	16V	Q	4.7 μ F~10 μ F
226	C	X5R	1210	16V	Q	22 μ F
227	C	X5R	1210	16V	R	4.7 μ F~10 μ F
228	C	X5R	1210	16V	R	22 μ F
229	C	X5R	1210	16V	R	47 μ F
230	C	X5R	1210	16V	3	100 μ F
231	C	X5R	1210	10V	Q	680nF~10 μ F
232	C	X5R	1210	10V	R	22 μ F
233	C	X5R	1210	10V	R	47 μ F
234	C	X5R	1210	10V	3	100 μ F
235	C	X5R	1210	6.3V	3	220 μ F
236	C	X6S	0105	10V	Z	22nF
237	C	X6S	0105	4.0V	Z	10nF
238	C	X6S	0201	25V	A	1nF~1.5nF
239	C	X6S	0201	25V	X	100nF
240	C	X6S	0201	16V	A	1nF~1.5nF
241	C	X6S	0201	16V	J	100nF
242	C	X6S	0201	10V	A	1.8nF~100nF
243	C	X6S	0201	10V	J	100nF~470nF
244	C	X6S	0201	10V	X	220nF, 470nF
245	C	X6S	0201	10V	X	1 μ F
246	C	X6S	0201	6.3V	A	10nF~100nF
247	C	X6S	0201	6.3V	J	100nF~220nF
248	C	X6S	0201	6.3V	X	470nF~1 μ F
249	C	X6S	0201	4.0V	A	12nF~100nF
250	C	X6S	0201	4.0V	J	220nF~470nF
251	C	X6S	0201	4.0V	J	1 μ F
252	C	X6S	0201	4.0V	X	470nF~1 μ F
253	C	X6S	0201	4.0V	X	2.2 μ F
254	C	X6S	0201	2.5V	X	1 μ F
255	C	X6S	0402	50V	C	22nF~100nF
256	C	X6S	0402	35V	C	100nF
257	C	X6S	0402	25V	B	33nF~100nF
258	C	X6S	0402	25V	N	330nF
259	C	X6S	0402	25V	N	1 μ F
260	C	X6S	0402	25V	C	47nF~470nF
261	C	X6S	0402	25V	C	1 μ F
262	C	X6S	0402	16V	B	1 μ F
263	C	X6S	0402	16V	N	100nF
264	C	X6S	0402	16V	C	220nF~2.2 μ F
265	C	X6S	0402	10V	B	1 μ F

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
266	C	X6S	0402	10V	N	100nF~470nF
267	C	X6S	0402	10V	N	1μF~2.2μF
268	C	X6S	0402	10V	C	1μF~2.2μF
269	C	X6S	0402	10V	C	4.7μF
270	C	X6S	0402	6.3V	B	1μF
271	C	X6S	0402	6.3V	B	2.2μF
272	C	X6S	0402	6.3V	N	100nF~470nF
273	C	X6S	0402	6.3V	N	1μF
274	C	X6S	0402	6.3V	N	2.2μF
275	C	X6S	0402	6.3V	C	2.2μF~4.7μF
276	C	X6S	0402	6.3V	C	10μF
277	C	X6S	0402	4.0V	B	1μF
278	C	X6S	0402	4.0V	B	2.2μF
279	C	X6S	0402	4.0V	U	22μF
280	C	X6S	0402	4.0V	C	4.7μF~10μF
281	C	X6S	0402	2.5V	C	10μF
282	C	X6S	0603	35V	D	100nF~1μF
283	C	X6S	0603	35V	K	2.2μF
284	C	X6S	0603	25V	D	1μF
285	C	X6S	0603	25V	K	2.2μF~4.7μF
286	C	X6S	0603	16V	D	1μF~2.2μF
287	C	X6S	0603	16V	K	2.2μF~10μF
288	C	X6S	0603	10V	D	1μF~2.2μF
289	C	X6S	0603	10V	K	4.7μF~10μF
290	C	X6S	0603	6.3V	D	2.2μF~4.7μF
291	C	X6S	0603	6.3V	K	4.7μF~10μF
292	C	X6S	0603	6.3V	K	22μF
293	C	X6S	0603	6.3V	W	22μF
294	C	X6S	0603	4.0V	D	4.7μF
295	C	X6S	0603	4.0V	K	4.7μF~10μF
296	C	X6S	0603	4.0V	K	22μF
297	C	X6S	0603	4.0V	W	22μF
298	C	X6S	0603	2.5V	K	47μF
299	C	X6S	0805	50V	H	1μF
300	C	X6S	0805	35V	H	2.2μF~4.7μF
301	C	X6S	0805	25V	Y	1μF
302	C	X6S	0805	25V	H	1μF~10μF
303	C	X6S	0805	16V	H	1μF~10μF
304	C	X6S	0805	16V	H	22μF
305	C	X6S	0805	10V	H	1μF~10μF
306	C	X6S	0805	10V	H	22μF
307	C	X6S	0805	6.3V	Y	2.2μF~10μF
308	C	X6S	0805	6.3V	H	2.2μF~10μF
309	C	X6S	0805	6.3V	H	47μF
310	C	X6S	0805	6.3V	H	22μF
311	C	X6S	0805	4.0V	Y	10μF
312	C	X6S	0805	4.0V	Y	22μF~47μF
313	C	X6S	0805	4.0V	H	10μF
314	C	X6S	0805	4.0V	H	22μF
315	C	X6S	0805	4.0V	H	47μF
316	C	X6S	0805	4.0V	H	100μF
317	C	X6S	1206	50V	L	1μF~4.7μF
318	C	X6S	1206	35V	L	4.7μF~10μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
319	C	X6S	1206	25V	L	1μF~10μF
320	C	X6S	1206	25V	L	22μF
321	C	X6S	1206	16V	L	10μF
322	C	X6S	1206	16V	L	12μF~22μF
323	C	X6S	1206	10V	Y	1μF~10μF
324	C	X6S	1206	10V	Y	22μF
325	C	X6S	1206	10V	O	1μF~10μF
326	C	X6S	1206	10V	O	22μF
327	C	X6S	1206	10V	L	4.7μF~10μF
328	C	X6S	1206	10V	L	22μF
329	C	X6S	1206	10V	P	47μF
330	C	X6S	1206	6.3V	L	47μF
331	C	X6S	1206	4.0V	L	22μF~100μF
332	C	X6S	1210	50V	R	10μF
333	C	X6S	1210	25V	R	10μF
334	C	X6S	1210	25V	R	22μF
335	C	X6S	1210	16V	R	22μF
336	C	X6S	1210	16V	3	47μF
337	C	X6S	1210	10V	R	10μF
338	C	X6S	1210	10V	R	22μF~47μF
339	C	X6S	1210	6.3V	3	100μF
340	C	X6S	1210	4.0V	3	100μF
341	C	X6T	0105	6.3V	Z	100nF
342	C	X6T	0105	4.0V	Z	100nF
343	C	X6T	0105	2.5V	Z	220nF
344	C	X6T	0201	25V	X	100nF
345	C	X6T	0201	16V	J	100nF
346	C	X6T	0201	10V	A	10nF~100nF
347	C	X6T	0201	10V	J	220nF
348	C	X6T	0201	10V	X	220nF
349	C	X6T	0201	6.3V	A	10nF~100nF
350	C	X6T	0201	6.3V	J	220nF
351	C	X6T	0201	6.3V	X	470nF~1μF
352	C	X6T	0201	4.0V	A	47nF~100nF
353	C	X6T	0201	4.0V	J	220nF~470nF
354	C	X6T	0201	4.0V	X	1μF
355	C	X6T	0201	4.0V	X	2.2μF
356	C	X6T	0402	50V	C	100nF
357	C	X6T	0402	35V	C	100nF
358	C	X6T	0402	25V	C	100nF~1μF
359	C	X6T	0402	16V	N	100nF~180nF
360	C	X6T	0402	16V	C	220nF~2.2μF
361	C	X6T	0402	10V	B	100nF~150nF
362	C	X6T	0402	10V	N	180nF~2.2μF
363	C	X6T	0402	10V	C	4.7μF
364	C	X6T	0402	6.3V	B	1μF
365	C	X6T	0402	6.3V	B	2.2μF
366	C	X6T	0402	6.3V	N	100nF~470nF
367	C	X6T	0402	6.3V	N	2.2μF
368	C	X6T	0402	6.3V	C	4.7μF~10μF
369	C	X6T	0402	4.0V	B	220nF~1μF
370	C	X6T	0402	4.0V	B	2.2μF
371	C	X6T	0402	4.0V	C	4.7μF~10μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
372	C	X6T	0402	2.5V	C	10μF
373	C	X6T	0402	2.5V	U	10μF
374	C	X6T	0603	35V	D	100nF~1μF
375	C	X6T	0603	35V	K	2.2μF
376	C	X6T	0603	25V	D	1μF
377	C	X6T	0603	25V	K	2.2μF, 4.7μF
378	C	X6T	0603	16V	D	220nF~2.2μF
379	C	X6T	0603	16V	K	4.7μF~10μF
380	C	X6T	0603	10V	D	220nF~2.2μF
381	C	X6T	0603	10V	K	4.7μF~10μF
382	C	X6T	0603	6.3V	D	220nF~1μF
383	C	X6T	0603	6.3V	D	2.2μF~4.7μF
384	C	X6T	0603	6.3V	K	10μF
385	C	X6T	0603	6.3V	K	22μF
386	C	X6T	0603	6.3V	W	22μF
387	C	X6T	0603	4.0V	D	2.2μF~4.7μF
388	C	X6T	0603	4.0V	K	10μF
389	C	X6T	0603	4.0V	K	22μF
390	C	X6T	0603	2.5V	K	47μF
391	C	X6T	0805	50V	H	1μF
392	C	X6T	0805	35V	H	2.2μF~4.7μF
393	C	X6T	0805	25V	Y	330nF~2.2μF
394	C	X6T	0805	25V	H	330nF~10μF
395	C	X6T	0805	16V	Y	1μF~10μF
396	C	X6T	0805	16V	H	1μF~10μF
397	C	X6T	0805	16V	H	22μF
398	C	X6T	0805	10V	Y	1μF~10μF
399	C	X6T	0805	10V	H	1μF~10μF
400	C	X6T	0805	10V	H	22μF
401	C	X6T	0805	6.3V	Y	2.2μF~10μF
402	C	X6T	0805	6.3V	Y	22μF
403	C	X6T	0805	6.3V	H	2.2μF~10μF
404	C	X6T	0805	6.3V	H	22μF
405	C	X6T	0805	4.0V	Y	4.7μF~10μF
406	C	X6T	0805	4.0V	Y	22μF~47μF
407	C	X6T	0805	4.0V	H	4.7μF~10μF
408	C	X6T	0805	4.0V	H	22μF~47μF
409	C	X6T	1206	50V	L	1μF~4.7μF
410	C	X6T	1206	35V	L	4.7μF~10μF
411	C	X6T	1206	25V	L	1μF~10μF
412	C	X6T	1206	16V	L	1μF~10μF
413	C	X6T	1206	10V	Y	1μF~10μF
414	C	X6T	1206	10V	Y	22μF
415	C	X6T	1206	10V	O	1μF~10μF
416	C	X6T	1206	10V	O	22μF
417	C	X6T	1206	10V	L	2.2μF~10μF
418	C	X6T	1206	10V	L	22μF
419	C	X6T	1206	6.3V	L	4.7μF~10μF
420	C	X6T	1206	6.3V	L	22μF~47μF
421	C	X6T	1206	4.0V	L	10μF
422	C	X6T	1206	4.0V	L	22μF~100μF
423	C	X6T	1210	50V	R	10μF
424	C	X7S	0105	10V	Z	2.2nF~22nF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
425	C	X7S	0201	25V	A	22nF~47nF
426	C	X7S	0201	16V	X	100nF
427	C	X7S	0201	10V	A	22nF~100nF
428	C	X7S	0201	10V	J	100nF
429	C	X7S	0201	6.3V	A	22nF~100nF
430	C	X7S	0201	6.3V	J	100nF
431	C	X7S	0402	25V	N	470nF
432	C	X7S	0402	16V	N	470nF
433	C	X7S	0402	16V	N	1μF
434	C	X7S	0402	10V	B	1μF
435	C	X7S	0402	10V	N	470nF
436	C	X7S	0402	10V	C	2.2μF
437	C	X7S	0402	6.3V	B	1μF
438	C	X7S	0402	6.3V	N	1μF
439	C	X7S	0402	6.3V	N	2.2μF
440	C	X7S	0402	6.3V	C	1μF
441	C	X7S	0402	4.0V	B	1μF
442	C	X7S	0603	25V	K	1μF
443	C	X7S	0603	25V	D	2.2μF
444	C	X7S	0603	16V	D	1μF
445	C	X7S	0603	16V	D	2.2μF
446	C	X7S	0603	16V	K	1μF
447	C	X7S	0603	16V	K	4.7μF
448	C	X7S	0603	10V	D	1μF
449	C	X7S	0603	10V	K	4.7μF
450	C	X7S	0603	6.3V	K	4.7μF~10μF
451	C	X7S	0603	4.0V	K	10μF
452	C	X7S	0603	2.5V	K	10μF
453	C	X7S	0805	35V	H	4.7μF
454	C	X7S	0805	25V	H	2.2μF~10μF
455	C	X7S	0805	25V	5	10μF
456	C	X7S	0805	10V	H	22μF
457	C	X7S	0805	6.3V	H	10μF
458	C	X7S	0805	6.3V	H	22μF
459	C	X7S	1206	16V	L	10μF
460	C	X7S	1210	6.3V	R	100μF
461	C	X7T	0105	6.3V	Z	10nF
462	C	X7T	0105	4.0V	Z	10nF
463	C	X7T	0201	16V	X	100nF
464	C	X7T	0201	10V	A	12nF~68nF
465	C	X7T	0201	10V	J	100nF
466	C	X7T	0201	10V	X	220nF
467	C	X7T	0201	6.3V	A	10nF~100nF
468	C	X7T	0201	6.3V	J	220nF
469	C	X7T	0201	6.3V	X	470nF
470	C	X7T	0201	4.0V	A	12nF~100nF
471	C	X7T	0201	4.0V	J	220nF
472	C	X7T	0201	4.0V	X	470nF~1μF
473	C	X7T	0201	2.5V	A	100nF
474	C	X7T	0201	2.5V	J	220nF~470nF
475	C	X7T	0201	2.5V	X	1μF
476	C	X7T	0201	2.5V	X	2.2μF
477	C	X7T	0402	50V	C	100nF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
478	C	X7T	0402	35V	C	100nF
479	C	X7T	0402	25V	B	100nF
480	C	X7T	0402	25V	C	220nF
481	C	X7T	0402	16V	B	1μF
482	C	X7T	0402	16V	N	1μF
483	C	X7T	0402	16V	C	100nF~470nF
484	C	X7T	0402	16V	C	1μF
485	C	X7T	0402	10V	B	1μF
486	C	X7T	0402	10V	N	100nF~470nF
487	C	X7T	0402	10V	N	1μF~2.2μF
488	C	X7T	0402	10V	C	220nF~2.2μF
489	C	X7T	0402	6.3V	B	100nF
490	C	X7T	0402	6.3V	B	1μF
491	C	X7T	0402	6.3V	N	220nF~470nF
492	C	X7T	0402	6.3V	N	1μF~2.2μF
493	C	X7T	0402	6.3V	C	2.2μF
494	C	X7T	0402	4.0V	B	100nF,1μF
495	C	X7T	0402	4.0V	B	2.2μF
496	C	X7T	0402	4.0V	N	220nF~470nF
497	C	X7T	0402	4.0V	N	1μF~2.2μF
498	C	X7T	0402	4.0V	C	4.7μF
499	C	X7T	0402	2.5V	B	1μF~2.2μF
500	C	X7T	0603	35V	K	2.2μF
501	C	X7T	0603	25V	D	1μF
502	C	X7T	0603	25V	K	1μF~2.2μF
503	C	X7T	0603	16V	D	1μF~2.2μF
504	C	X7T	0603	16V	K	2.2μF
505	C	X7T	0603	10V	D	1μF~2.2μF
506	C	X7T	0603	10V	K	4.7μF~10μF
507	C	X7T	0603	6.3V	D	1μF
508	C	X7T	0603	6.3V	D	2.2μF
509	C	X7T	0603	6.3V	K	4.7μF~10μF
510	C	X7T	0603	4.0V	D	2.2μF~4.7μF
511	C	X7T	0603	4.0V	K	10μF
512	C	X7T	0603	2.5V	D	4.7μF
513	C	X7T	0603	2.5V	K	10μF
514	C	X7T	0603	2.5V	K	47μF
515	C	X7T	0805	50V	H	1μF
516	C	X7T	0805	25V	H	4.7μF~10μF
517	C	X7T	0805	25V	5	10μF
518	C	X7T	0805	16V	Y	1μF
519	C	X7T	0805	16V	H	1μF~10μF
520	C	X7T	0805	10V	H	2.2μF~10μF
521	C	X7T	0805	10V	H	22μF
522	C	X7T	0805	6.3V	H	2.2μF~10μF
523	C	X7T	0805	6.3V	H	22μF
524	C	X7T	0805	4.0V	Y	2.2μF,10μF
525	C	X7T	0805	4.0V	H	2.2μF~4.7μF
526	C	X7T	0805	2.5V	Y	10μF
527	C	X7T	0805	2.5V	Y	22μF~47μF
528	C	X7T	0805	2.5V	H	22μF~47μF
529	C	X7T	1206	63V	P	4.7μF
530	C	X7T	1206	25V	L	1μF,10μF

Table 3-2 Capacitance Table (Class 2-X7R\X7T\X7S\X6S\X6T\X5R)

NO.	Series Code	Temperature Characteristics	Size Code	Rated Voltage	Thickness code	Capacitance
531	C	X7T	1206	16V	L	10 μ F
532	C	X7T	1206	6.3V	P	47 μ F
533	C	X7T	1206	6.3V	L	4.7 μ F~10 μ F
534	C	X7T	1206	6.3V	L	22 μ F
535	C	X7T	1206	4.0V	Y	22 μ F
536	C	X7T	1206	4.0V	O	1 μ F
537	C	X7T	1206	4.0V	L	22 μ F
538	C	X7T	1206	2.5V	L	22 μ F~100 μ F
539	C	X7T	1210	50V	R	10 μ F
540	C	X7T	1210	50V	3	10 μ F

Table 4 Packaging (Minimum Quantity)

NO.	Size Code	Thickness Code	Square hole spacing	Disc Size	Carrier Tape Type	QTY (Kpcs)	Packaging Code
1	A8A4	1	1mm	7 #	Plastic	50	P
2	0105	Z	2mm	7 #	Paper	20	T
3	0105	Z	2mm	7 #	Paper	15	H
4	0105	Z	1mm	7 #	Plastic	40	P
5	0201	A	2mm	7 #	Paper	15	T
6	0201	A	2mm	13 #	Paper	50	J
7	0201	A	1mm	13 #	Paper	100	D
8	0201	A	1mm	13 #	Paper	140	A
9	0201	A	2mm	13 #	Paper	70	M
10	0201	A	2mm	7 #	Paper	10	H
11	0201	A	1mm	7 #	Paper	30	L
12	0201	J	2mm	7 #	Paper	15	T
13	0201	J	2mm	13 #	Paper	50	J
14	0201	J	1mm	13 #	Paper	100	D
15	0201	J	1mm	13 #	Paper	140	A
16	0201	J	2mm	13 #	Paper	70	M
17	0201	J	2mm	7 #	Paper	10	H
18	0201	J	1mm	7 #	Paper	30	L
19	0201	X	2mm	7 #	Paper	15	T
20	0201	X	2mm	13 #	Paper	50	J
21	0201	X	2mm	7 #	Paper	10	H
22	0201	F	2mm	7 #	Paper	15	T
23	0201	B	2mm	7 #	Paper	10	H
24	0201	B	2mm	7 #	Paper	15	T
25	0402	B	2mm	7 #	Paper	10	T
26	0402	B	2mm	13 #	Paper	50	J
27	0402	N	2mm	7 #	Paper	10	T
28	0402	N	2mm	13 #	Paper	50	J
29	0402	C	2mm	7 #	Paper	10	T
30	0402	C	2mm	13 #	Paper	50	J
31	0402	A	2mm	7 #	Paper	10	T
32	0402	U	2mm	7 #	Paper	8	C
33	0402	U	2mm	7 #	Paper	10	T
34	0603	S	4mm	7 #	Paper	4	T
35	0603	U	4mm	7 #	Paper	4	T
36	0603	D	4mm	7 #	Paper	4	T
37	0603	D	4mm	13 #	Paper	15	A
38	0603	D	4mm	13 #	Plastic	10	O
39	0603	D	4mm	7 #	Paper	3	W
40	0603	K	4mm	7 #	Paper	4	T
41	0603	K	4mm	13 #	Paper	15	A
42	0603	K	4mm	13 #	Plastic	10	O
43	0603	K	4mm	7 #	Paper	3	W
44	0603	K	4mm	7 #	Plastic	4	Q
45	0603	K	4mm	7 #	Plastic	3	R
46	0603	4	4mm	7 #	Plastic	3	R
47	0603	W	4mm	7 #	Plastic	3	R
48	0603	W	4mm	13 #	Plastic	10	O

Table 4 Packaging (Minimum Quantity)

NO.	Size Code	Thickness Code	Square hole spacing	Disc Size	Carrier Tape Type	QTY (Kpcs)	Packaging Code
49	0603	W	4mm	7 #	Plastic	4	Q
50	0603	6	4mm	7 #	Plastic	3	R
51	0603	6	4mm	7 #	Paper	4	T
52	0805	C	4mm	7 #	Paper	4	T
53	0805	C	4mm	7 #	Plastic	3	R
54	0805	K	4mm	7 #	Paper	4	T
55	0805	K	4mm	7 #	Plastic	3	R
56	0805	K	4mm	13 #	Plastic	15	E
57	0805	Y	4mm	7 #	Paper	4	T
58	0805	Y	4mm	13 #	Plastic	15	E
59	0805	Y	4mm	7 #	Plastic	2	P
60	0805	Y	4mm	7 #	Plastic	3	R
61	0805	G	4mm	7 #	Plastic	3	R
62	0805	G	4mm	7 #	Plastic	2	P
63	0805	G	4mm	13 #	Plastic	10	O
64	0805	H	4mm	7 #	Plastic	3	R
65	0805	H	4mm	7 #	Plastic	2	P
66	0805	H	4mm	13 #	Plastic	10	O
67	0805	5	4mm	7 #	Plastic	3	R
68	0805	5	4mm	7 #	Plastic	2	P
69	0805	5	4mm	13 #	Plastic	10	O
70	0805	M	4mm	7 #	Plastic	2	P
71	0805	M	4mm	7 #	Plastic	4	Q
72	0805	M	4mm	7 #	Plastic	3	R
73	1206	E	4mm	7 #	Plastic	3	R
74	1206	E	4mm	7 #	Plastic	2	P
75	1206	Y	4mm	7 #	Plastic	3	R
76	1206	Y	4mm	7 #	Plastic	4	Q
77	1206	O	4mm	7 #	Plastic	3	R
78	1206	O	4mm	7 #	Plastic	2	P
79	1206	L	4mm	7 #	Plastic	2	P
80	1206	L	4mm	7 #	Plastic	3	R
81	1206	L	4mm	13 #	Plastic	8	E
82	1206	P	4mm	7 #	Plastic	2	P
83	1210	L	4mm	7 #	Plastic	2	P
84	1210	Q	4mm	7 #	Plastic	1.5	F
85	1210	Q	4mm	7 #	Plastic	0.5	S
86	1210	Q	4mm	7 #	Plastic	1	Z
87	1210	R	4mm	7 #	Plastic	1	Z
88	1210	R	4mm	7 #	Plastic	0.5	S
89	1210	3	4mm	7 #	Plastic	1	Z

First packaging: Each multi-disc material is packed into a box.

The second packaging: the first packaged packaging box is loaded into the paper packaging box, and the remaining space in the box is filled with light auxiliary material.

The above packaging forms can also be packaged according to user needs.

3. Technical Specifications and Test Methods

3.1 Operating Environment

Temp. Characteristics	Temp. Range	Relative Humidity	Atmospheric Pressure
C0G/X7R/X7S/X7T	-55℃ ~ 125℃	≤95% (25℃)	86 KPa~106KPa
X6S/X6T	-55℃ ~ 105℃	≤95% (25℃)	86 KPa~106KPa
X5R	-55℃ ~ 85℃	≤95% (25℃)	86 KPa~106KPa

3.2 Reliability Test Specifications and Methods

Without specific note, the "test method" in Table 5 is based on GB/T 21041/21042 IDT IEC60384 .

Table 5: Specifications and Test Methods

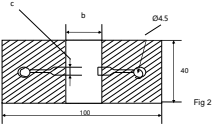
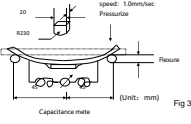
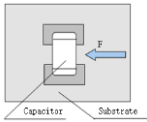
No.	Item	Specification Class1 (Temperature Compensating Type)- C0G Class 2 (High dielectric constant type)-X7R,X7T,X7S,X6S,X6T,X5R	Test Method
1	Appearance	No obvious defects on ceramic body and termination.	Visual examination under a microscope.
2	Size Code	See Fig.1 and ② Size Code	Measuring by gages which precision is not less than 0.01 mm .
3	Capacitance	Within the specified tolerance	Measurement Temperature 18 ~ 28℃ Relative Humidity ≤RH 80%
4	Dissipation Factor (D.F.) or Q	Class 1 C≥30pF, Q≥1000 C < 30pF, Q≥400+20C C: Nominal Capacitance (pF) Class 2 See Table 5-1	Measurement Frequency Class 1: C≤1nF, f=1.0±0.1MHz ; C>1nF, f=1.0±0.1KHz Class 2: f=1.0±0.1KHz, 120±24Hz , See Table 5-1 Measurement Voltage Class 1: 1.0±0.2Vrms Class 2: U=1.0±0.2Vrms, 0.5±0.1Vrms , See Table 5-1 Post-treatment When the capacitor initial capacitance is lower than its tolerance value, the test sample need to Perform a heat treatment at 150℃+0/-10℃for 1hour and then sit for 24±2 hours at room temperature.then measure.
5	Insulation Resistance (I.R.)	Class 1 ≥10,000MΩ or 500Ω·F, (Whichever is larger) Class 2 See Table 5-1	Measurement Temperature 18 ~ 28℃ Relative Humidity ≤RH 80% Measurement Voltage Rated Voltage Charging Time 1min Charge/discharge current 50mA or lower
6	Voltage proof	No defects or abnormalities.	Test Voltage Class 1: ≥3×U _L Class 2: ≥2.5×U _L Applied Time t=1s~5s Charge/discharge current 50mA or lower
7	Temperature Characteristics of Capacitance	Class 1 C0G: αC≤±30ppm/℃ (125℃); -72≤αC≤+30ppm/℃ (-55℃) Class 2 X7R/X5R: ΔC/C≤±15% X7S/X6S: ΔC/C≤±22% X7T/X6T: -33%≤ΔC/C≤22%	Pre-treatment Class 2: Perform a heat treatment at 150℃+0/-10℃ for 1 hour and then sit for 24±2 hours at room temperature. then measure. Pre-drying Class 1: 16-24 hours Measure the capacitance separately in 25℃, 01, 25℃, 02, 25℃, should satisfied related capacitance change characteristics. C0G(X7R/X7S/X7T) 01=-55℃, 02=125℃ X6S/X6T 01=-55℃, 02=105℃ X5R 01=-55℃, 02=85℃ T.C Measurement Voltage Class1: 1.0±0.2Vrms Class 2: ≤1.0±0.2Vrms ※ 【※ Please contact our technical support staff for more information.】
8	Resistance to Soldering Heat	Appearance No visible damage and terminations uncovered shall be less than 25%. Cap. Change Class 1: ΔC/C≤±2.5% or ±0.25pF, (Whichever is larger) Class 2: See Table 5-1 I.R. initial specification D.F. or Q initial specification Voltage proof No defects or abnormalities.	Pre-treatment Class 2: Perform a heat treatment at 150℃+0/-10℃ for 1 hour and then sit for 24±2 hours at room temperature. then measure. Test Method Solder bath method Pre-heating Temp.: 120℃~150℃/Time: 60s Solder alloy Sn-3.0Ag-0.5Cu(Lead Free Solder) Solder temp. (270±5)℃ Duration of immersion (10±1)s Depth of immersion 10 mm Post-treatment Let sit for 24±2 hours at room temperature, then measure.
9	Solderability	Appearance 95% of the terminations is to be soldered evenly and continuously	Pre-heating 80℃~120℃,Time:10s~30s Test Method Solder bath method Flux Solution of rosin ethanol Solder alloy Sn-Ag-Cu(Lead Free Solder) Solder temp. (245±5)℃ Duration of immersion (2.0±0.5)s Depth of immersion 10 mm
10	Substrate Bending test	Appearance No defects or abnormalities Cap. Change Class 1: ΔC/C≤±5% or ±0.5pF, (Whichever is larger) Class 2: See Table 5-1	Mounting method Solder the capacitor on the test substrate shown in Fig.2 Pressurization Method Shown in Fig.3 Flexure 1mm Holding Time (5±1)s then measure the capacitance  Fig 2  Fig 3

Table 5: Specifications and Test Methods

No.	Item	Specification Class1 (Temperature Compensating Type)- COG Class 2 (High dielectric constant type)-X7R,X7T,X7S,X6S,X6T,X5R		Test Method																
11	Adhesive Strength of Termination	Appearance	No defects or abnormalities	Mounting method Apply a pushing force of F for 10±1secs. Pushing force	Solder the capacitor on the test substrate shown in Fig.4 ABA4/0105:F=1N 0201:F=2N 0402:F=5N Class1: 0603/0805/1206/1210:F=10N Class2: 0603/0805/1206/1210:F=5N  Fig 4															
12	Vibration	Appearance	No defects or abnormalities	Mounting method	Solder the capacitor on the test substrate															
		Cap. Change	Class1: initial specification Class 2: See Table 5-1	Amplitude	1.5mm															
		I.R.	initial specification	Kind of Vibration	A simple harmonic motion															
		D.F. or Q	initial specification	Frequency	10Hz-55Hz-10Hz															
				Vibration Time	1 min															
				Repeat this for 2hrs each in 3 perpendicular directions X, Y, Z, total 6hrs.																
13	Rapid change of temperature	Appearance	No defects or abnormalities	Pre-treatment	Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															
		Cap. Change	Class 1: ΔC/C≤±2.5% or ±0.25pF, (Whichever is larger) Class 2: See Table 5-1	Mounting method	Solder the capacitor on the test substrate															
		I.R.	initial specification	The number of cycles	5 cycles															
		D.F. or Q	initial specification	Temperature Step																
		Voltage proof	No defects or abnormalities.																	
				<table><tr><th>Step.</th><th>Temp.(°C)</th><th>Time (min.)</th></tr><tr><td>1</td><td>θ1</td><td>30±3</td></tr><tr><td>2</td><td>25</td><td>2~5</td></tr><tr><td>3</td><td>θ2</td><td>30±3</td></tr><tr><td>4</td><td>25</td><td>2~5</td></tr></table>	Step.	Temp.(°C)	Time (min.)	1	θ1	30±3	2	25	2~5	3	θ2	30±3	4	25	2~5	
Step.	Temp.(°C)	Time (min.)																		
1	θ1	30±3																		
2	25	2~5																		
3	θ2	30±3																		
4	25	2~5																		
				COG\X7R\X7S\X7T	θ1=-55°C, θ2=125°C															
				X6S/X6T	θ1=-55°C, θ2=105°C															
				X5R	θ1=-55°C, θ2=85°C															
				Post-treatment Let sit for 24±2 hours at room temperature, then measure.																
14	Damp heat (steady state)	Appearance	No defects or abnormalities	Pre-treatment	Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															
		Cap. Change	Class 1: ΔC/C≤±7.5% or 0.75pF, (Whichever is larger) Class 2: See Table 5-1	Mounting method	Solder the capacitor on the test substrate															
		I.R.	Class 1: ≥500MΩ or 250Ω·F, (Whichever is smaller) Class 2: See Table 5-1	Test Temperature	40±2°C															
		D.F. or Q	Class 1: C≥30pF, Q≥200 C < 30pF, Q≥100+10C/3 C: Nominal Capacitance (pF) Class 2: See Table 5-1	Test Humidity	RH 90~95%															
				Test Time	500±12h															
				Post-treatment	Let sit for 24±2 hours at room temperature, then measure.															
15	High Temperature High Humidity (Steady)	Appearance	No defects or abnormalities	Pre-treatment	Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															
		Cap. Change	Class 1: ΔC/C≤±7.5% or 0.75pF, (Whichever is larger) Class 2: See Table 5-1	Mounting method	Solder the capacitor on the test substrate															
		I.R.	Class 1: ≥500MΩ or 250Ω·F, (Whichever is smaller) Class 2: See Table 5-1	Test Temperature	40±2°C															
		D.F. or Q	Class 1: C≥30pF, Q≥200 C < 30pF, Q≥100+10C/3 C: Nominal Capacitance (pF) Class 2: See Table 5-1	Test Humidity	RH 90~95%															
				Test Voltage	1.0×U _R															
				Test Time	500±12h															
				Charge/discharge current	50mA or lower															
				Post-treatment	Class 1: Let sit for 24±2 hours at room temperature, then measure. Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															
16	Endurance	Appearance	No defects or abnormalities	Pre-treatment	Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															
		Cap. Change	Class 1: ΔC/C≤±2% or ±0.2pF, (Whichever is larger) Class 2: See Table 5-1	Mounting method	Solder the capacitor on the test substrate															
		I.R.	Class 1: ≥1000MΩ or 500Ω·F, (Whichever is smaller) Class 2: See Table 5-1	Test Temperature	82±3°C [COG\X7R\X7S\X7T: θ2=125°C, X6S/X6T: θ2=105°C, X5R: θ2=85°C]															
		D.F. or Q	Class 1: C≥30pF, Q≥350 10pF < C < 30pF, Q≥275+5C/2 C≤10pF,Q≥200+10C C: Nominal Capacitance (pF) Class 2: See Table 5-1	Test Time	1000±12h															
				Test Voltage	Class 1: 2×U _R [0201COG:C≥270pF and U _R =50V: 1.5×U _R 1206:C≥150nF and U _R =50V:1.0×U _R] Class 2: See Table 5-1															
				Charge/discharge current	50mA or lower															
				Post-treatment	Class 1: Let sit for 24±2 hours at room temperature, then measure. Class 2: Perform a heat treatment at 150°C+0/-10°C for 1 hour and then sit for 24±2 hours at room temperature. then measure.															

4.1.1 packaging type

Reel Packaging (standard carrier tape disc packaging), single disc smallest package See Table 4

The diagram illustrates the geometry of the test specimen. It features a central hole with diameter D_0 and a cover tape. Key dimensions are labeled: t for the thickness of the specimen, D_0 for the hole diameter, P_0 and P_2 for the hole spacing, P for the hole diameter, A and B for the hole spacing, E and F for the hole diameter, and W for the total width.

Fig. 5-1:0603,0805,1206,1210 (Paper tape)

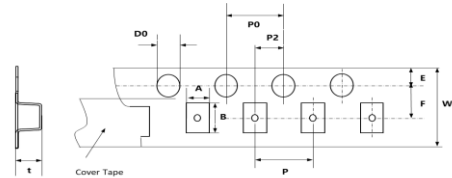


Fig. 5-2:0603,0805,1206,1210 (Plastic tape)

Table 6-1 Carrier size (Size Code:0603,0805,1206,1210)

Size Code	Thickness code	Carrier Tape Type	Packaging Code	A	B	F	P	E	D0	P2	K	W	P0	t
0603	S	Paper	T	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	0.70max
0603	U	Paper	T	1.00±0.10	1.80±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	0.95max
0603	D	Paper	T	1.00±0.10	1.80±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	D	Paper	A	1.00±0.10	1.80±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	D	Plastic	O	1.00±0.10	1.80±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	D	Paper	W	1.00±0.10	1.80±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Paper	T	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Paper	A	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Plastic	O	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Paper	W	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Plastic	Q	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	K	Plastic	R	1.10±0.10	1.90±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0603	4	Plastic	R	1.10±0.15	1.90±0.15	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0603	W	Plastic	R	1.10±0.20	1.90±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0603	W	Plastic	O	1.10±0.20	1.90±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0603	W	Plastic	Q	1.10±0.20	1.90±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0603	6	Plastic	R	1.10±0.20	1.90±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0603	6	Paper	T	1.10±0.20	1.90±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
0805	C	Paper	T	1.45±0.10	2.20±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	0.9max
0805	C	Plastic	R	1.45±0.10	2.20±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	0.9max
0805	K	Paper	T	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	K	Plastic	R	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	K	Plastic	E	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	Y	Paper	T	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	Y	Plastic	E	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	Y	Plastic	P	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	Y	Plastic	R	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
0805	G	Plastic	R	1.45±0.10	2.20±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.75max
0805	G	Plastic	P	1.45±0.10	2.20±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.75max
0805	G	Plastic	O	1.45±0.10	2.20±0.10	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.75max
0805	H	Plastic	R	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	H	Plastic	P	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	H	Plastic	O	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	S	Plastic	R	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	S	Plastic	P	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	S	Plastic	O	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
0805	M	Plastic	P	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
0805	M	Plastic	Q	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
0805	M	Plastic	R	1.45±0.20	2.20±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1206	E	Plastic	R	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
1206	E	Plastic	P	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.15max
1206	Y	Plastic	R	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
1206	Y	Plastic	Q	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.35max
1206	O	Plastic	R	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.45max
1206	O	Plastic	P	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	1.45max
1206	L	Plastic	P	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1206	L	Plastic	R	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1206	L	Plastic	E	1.80±0.20	3.40±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1206	P	Plastic	P	1.90±0.20	3.50±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1210	L	Plastic	P	2.70±0.20	3.50±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.00max
1210	Q	Plastic	F	2.70±0.20	3.50±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1210	Q	Plastic	S	2.70±0.20	3.50±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1210	Q	Plastic	Z	2.70±0.20	3.50±0.20	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	2.50max
1210	R	Plastic	Z	2.70±0.20	3.50±0.30	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	3.00max
1210	R	Plastic	S	2.70±0.20	3.50±0.30	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	3.00max
1210	3	Plastic	Z	2.70±0.30	3.50±0.40	3.50±0.05	4.00±0.10	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.20	4.00±0.10	3.10max

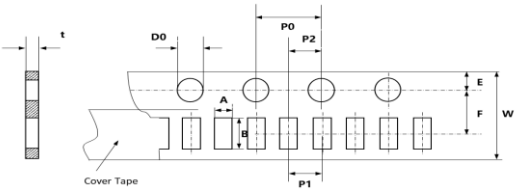


Fig. 5-3:0402 (Paper tape/ 2mm pitch)

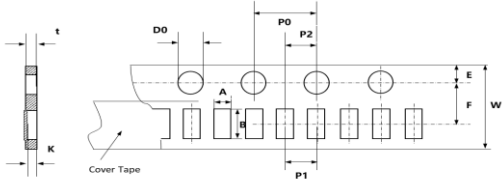


Fig. 5-4:0105,0201 (Paper tape/ 2mm pitch)

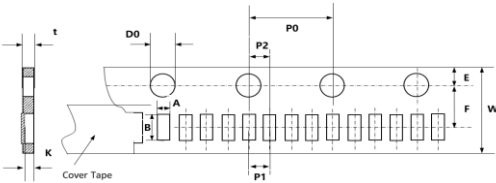


Fig. 5-5:0201 (Paper tape/ 1mm pitch)

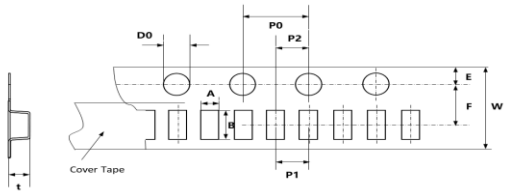


Fig. 5-6:A8A4/0105 (Plastic tape/ 1mm pitch)

Table 6-2 Carrier size (Size Code:A8A4,0105,0201,0402)

Size Code	Thickness code	Carrier Tape Type	Packaging Code	A	B	F	P1	E	D0	P2	K	W	P0	t
A8A4	1	Plastic	P	0.145±0.007	0.270±0.007	1.80±0.05	1.00±0.05	0.90±0.1	0.80±0.05	1.00±0.05	0.145±0.007	4.00±0.10	2.00±0.1	0.5max
0105	Z	Paper	T	0.24±0.02	0.45±0.02	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.24±0.02	8.00±0.10	4.00±0.10	0.5max
0105	Z	Paper	H	0.24±0.02	0.45±0.02	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.24±0.02	8.00±0.10	4.00±0.10	0.5max
0105	Z	Paper	P	0.24±0.02	0.45±0.02	1.80±0.05	1.00±0.05	0.90±0.1	0.80±0.05	1.00±0.05	0.24±0.02	4.00±0.10	2.00±0.1	0.5max
0201	A	Paper	T	0.38±0.02	0.68±0.03	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	J	0.38±0.02	0.68±0.03	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	D	0.38±0.02	0.68±0.03	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	A	0.38±0.02	0.68±0.03	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	M	0.38±0.02	0.68±0.03	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	H	0.38±0.02	0.68±0.03	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	A	Paper	L	0.38±0.02	0.68±0.03	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.36±0.02	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	T	0.40±0.04	0.70±0.04	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	J	0.40±0.04	0.70±0.04	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	D	0.40±0.04	0.70±0.04	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	A	0.40±0.04	0.70±0.04	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	M	0.40±0.04	0.70±0.04	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	H	0.40±0.04	0.70±0.04	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	J	Paper	L	0.40±0.04	0.70±0.04	3.50±0.05	1.00±0.05	1.75±0.10	1.55±0.05	1.00±0.05	0.38±0.04	8.00±0.10	4.00±0.10	0.5max
0201	X	Paper	T	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.40±0.05	8.00±0.10	4.00±0.10	0.6max
0201	X	Paper	J	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.40±0.05	8.00±0.10	4.00±0.10	0.6max
0201	X	Paper	H	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.40±0.05	8.00±0.10	4.00±0.10	0.6max
0201	F	Paper	T	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.40±0.05	8.00±0.10	4.00±0.10	0.6max
0201	B	Paper	H	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.55±0.05	8.00±0.10	4.00±0.10	0.7max
0201	B	Paper	T	0.44±0.06	0.74±0.06	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	0.55±0.05	8.00±0.10	4.00±0.10	0.7max
0402	B	Paper	T	0.63±0.05	1.13±0.05	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	B	Paper	J	0.63±0.05	1.13±0.05	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	N	Paper	T	0.70±0.10	1.20±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	N	Paper	J	0.70±0.10	1.20±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	C	Paper	T	0.75±0.10	1.30±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	C	Paper	J	0.75±0.10	1.30±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.8max
0402	A	Paper	T	0.75±0.10	1.30±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.5max
0402	U	Paper	C	0.85±0.10	1.40±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.95max
0402	U	Paper	T	0.85±0.10	1.40±0.10	3.50±0.05	2.00±0.05	1.75±0.10	1.55±0.05	2.00±0.05	/	8.00±0.10	4.00±0.10	0.95max

4.1.3 Disc size

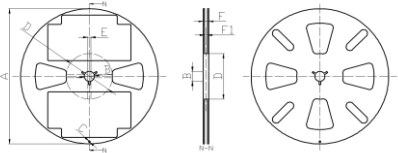


Fig. 6-1: disc (Width of carrier-4mm)

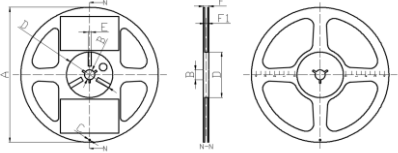


Fig. 6-2: disc (Width of carrier-8mm)

Table 7: Disc size

Disc size	Width of carrier	A	B	C	D	E	F	F1	Size Code
7"	8.00±0.10	Φ178±2.0	Φ13±1.0	Φ4.0±0.5	Φ60±2.0	4±1.0	11.5±1.0	10±2	All
13"	8.00±0.10	Φ330±2.0	Φ13±1.0	Φ4.0±0.5	Φ108±2.0	4±1.0	13.5±2.0	10±2	All
7"	4.00±0.10	Φ178±2.0	Φ13±1.0	Φ4.0±0.5	Φ60±2.0	3.5±0.5	7.3±0.5	4.5±1	A8A4

4.1.4 Carrier Tape specifications

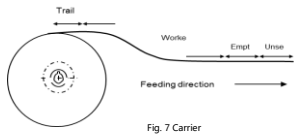


Fig. 7 Carrier

Packaging	The minimum length of the reserved spaces		
Carrier	Trailer	Empty	Unseal
	60 mm	200mm	160mm

4.1.5 Performance of Carrier Taping

4.1.5.1 Strength of Carrier Tape and Top Cover Tape

a. Carrier Tape

When a tensile force 1.02kgf is applied in the direction to unroll the tape, the tape shall withstand this force.

b. Top cover Tape

When a tensile force 1.02kgf is applied to the tape, the tape shall withstand this force.

4.1.5.2 Peeling Strength of Top Cover Tape

Unless otherwise specified, the peeling strength of top cover tape shall be within 10.2 to 71.4 gf when the top cover tape is pulled at a speed of 300mm/min with the angle of 0 to 15°(see Fig.8).

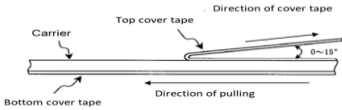


Fig.8 Cover tape peel-off force

4.2 Shipment

Transport packaging products to adapt to the modern means of transport, but the product in the process of transport to prevent rain and acid and alkali corrosion, shall not be whipped extrusion casting and gravity.

4.3 Storage

4.3.1 Storage conditions:

The recommended temperature is less than 30°C.

A temperature is +5°C to +40°C and a relative humidity is 20% to 70% as a standard condition.(MSL Level 1)

MLCC may be affected by the storage conditions. Please use them promptly after delivery.

High temperature and humidity conditions and/or prolonged storage may cause deterioration of the packaging materials.

If more than six months have elapsed since delivery, check packaging, mounting, etc. before use.

4.3.2 Corrosive gas can react with the termination (external) electrodes or lead wires of capacitors, and result in poor solderability.

Do not store the capacitors in an atmosphere consisting of corrosive gas (e.g.,hydrogen sulfide, sulfur dioxide, chlorine, ammonia gas etc.)

5. MLCC Application of Technical Requirements

5.1 Circuit Design

5.1.1 Operating Temperature

- Do not use capacitor above the maximum allowable operating temperature.
- Surface temperature including self-heating should be below maximum operating temperature.

5.1.2 Operating Voltage

The operating voltage for capacitors must always be lower than their rated voltage.

5.2 PCB Design

5.2.1 Design of Land-patterns

When the capacitors are mounted on a PCB, the amount of solder at the terminations has a direct effect on the performance of the capacitors.

The greater the amount of solder, the higher the stress on the capacitor. Therefore, when designing land-patterns, it is necessary to consider the appropriate size and configuration of the solder pads.

Size and recommended land dimensions are shown in the following figure and table



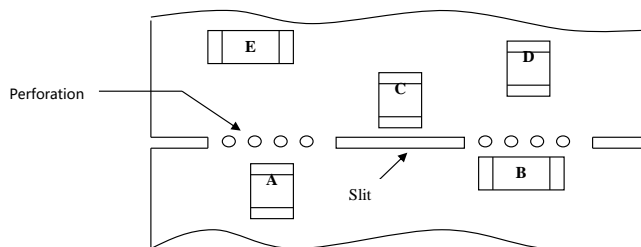
Recommended land dimensions for reflow-soldering

(unit: mm)

Size Code	Length	Width	Tolerance	A	B	C
A8A4	0.25	0.125	all	0.10~0.11	0.07~0.12	0.125~0.145
0105	0.4	0.2	General	0.16~0.20	0.12~0.18	0.20~0.23
0201	0.6	0.3	±0.03	0.20~0.25	0.20~0.30	0.20~0.35
0201	0.6	0.3	±0.05	0.20~0.25	0.25~0.35	0.30~0.40
0201	0.6	0.3	±0.09/±0.1	0.23~0.30	0.25~0.35	0.30~0.40
0402	1	0.5	±0.05	0.30~0.50	0.35~0.45	0.40~0.60
0402	1	0.5	±0.15 or ±0.20	0.40~0.60	0.40~0.50	0.50~0.70
0603	1.6	0.8	±0.10	0.60~0.80	0.60~0.70	0.60~0.80
0603	1.6	0.8	±0.20	0.70~0.90	0.70~0.80	0.80~1.00
0805	2.0	1.25	±0.10 or ±0.20	1.00~1.40	0.60~0.80	1.20~1.40
1206	3.2	1.6	±0.20	1.80~2.00	0.90~1.20	1.50~1.70
1210	3.2	2.5	±0.20	2.00~2.40	1.00~1.20	1.80~2.30

5.2.2 Capacitor Layout on PC Board

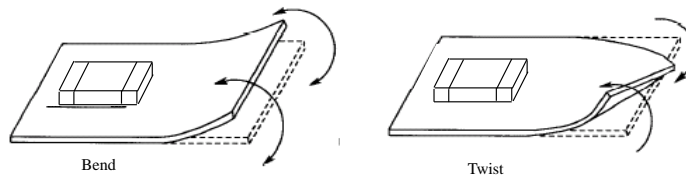
Mechanical stress varies according to the location of capacitors on PC board. The recommendation for better design is as follows



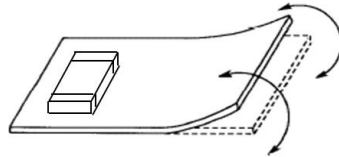
The stress in capacitors is in the following order: A>B=C>D>E

Pay attention not to bend or distort the PC board otherwise the capacitor may crack. Please refer to the following examples of good and bad capacitor layout.

a. Not recommended

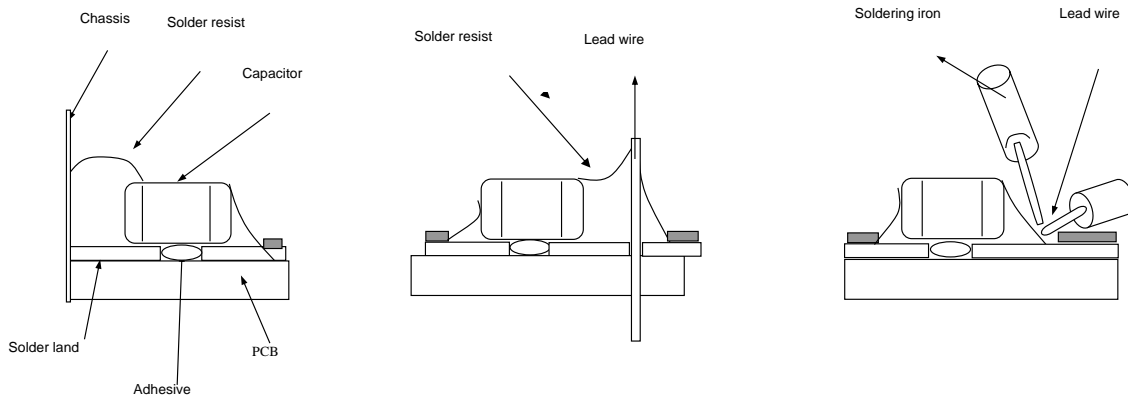


b.Recommended

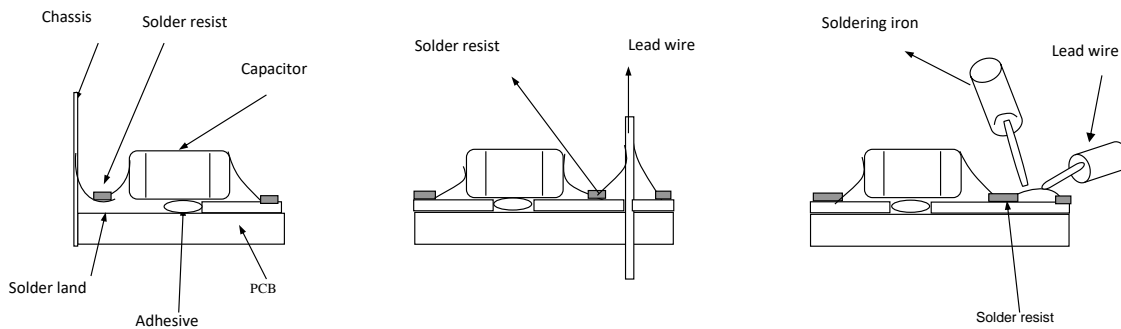


5.2.3Solder Buildup and Soldering

a.Examples of soldering method not recommended



b.Examples of soldering method recommended

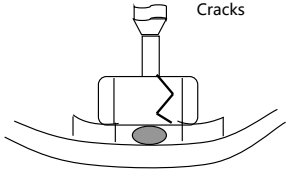
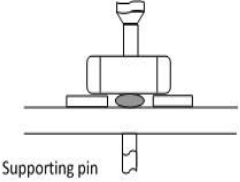
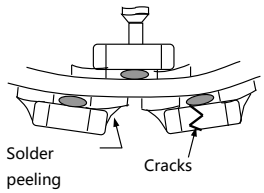
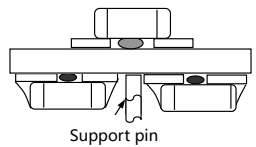


5.3 Consideration for Automatic Placement

If the mounting head is adjusted too low, it may induce excessive stress in the chip capacitor to result in cracking. Please take following precautions

- Adjust the bottom dead center of the mounting head to reach on the PC board surface and not press it;
- Adjust the mounting head pressure to be 1N to 3N of static weight;
- To minimize the impact energy from mounting head, it is important to provide support from the bottom side of the PC board.

Please refer to the following samples

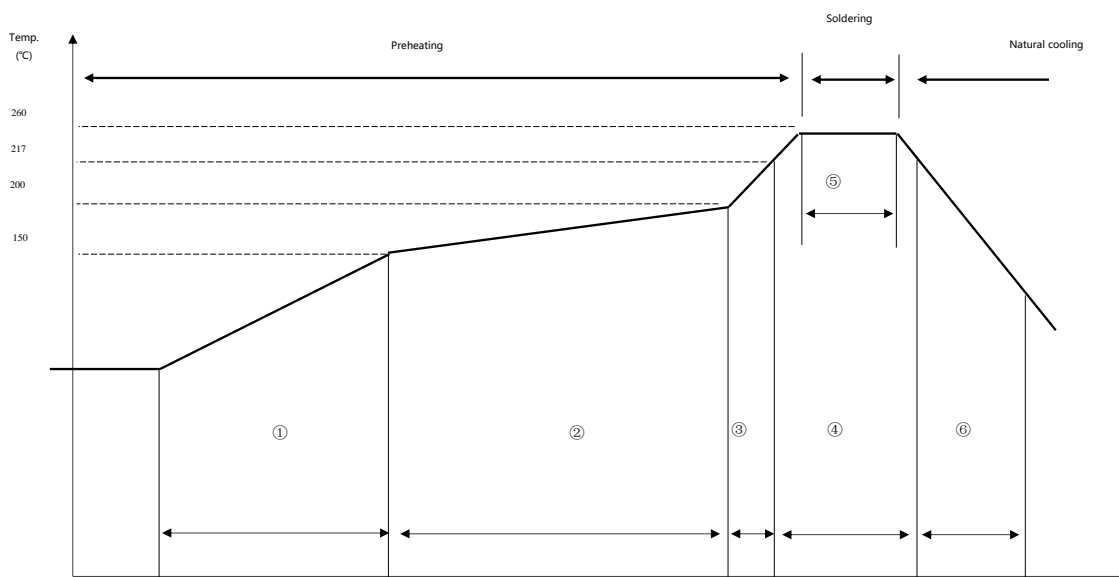
Mounting	Not recommended	Recommended
Singel-sided Mounting		
Double-sided Mounting		

5.4 Soldering

5.4.1 Flux Selection

- It is recommended to use a mildly activated rosin flux (less than 0.1wt% chlorine). Strong flux is not recommended.
- Please provide proper amount of flux. Excessive flux must be avoided.
- When water-soluble flux is used, enough washing is necessary.

5.4.2 Recommended Soldering Profile



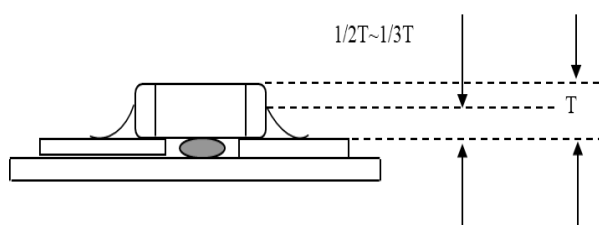
5.4.2.1 Reflow Soldering Condition

NO.	Reflow Soldering zone	Reflow Soldering Condition
①	Preheating 1	$\leq 3^{\circ}\text{C/s}; \geq 60\text{s}$
②	Constant temperature	$150 \sim 200^{\circ}\text{C}; 60 \sim 120\text{s}; \leq 1^{\circ}\text{C/s}$
③	Preheating 1	$1 \sim 5^{\circ}\text{C/s}$
④	Soldering 1	Above 217°C , $60 \sim 150\text{s}$
⑤	Soldering 1	Above 260°C , over 10s
⑥	Natural cooling	$\leq 6^{\circ}\text{C/s}$

Caution

a.Excessive solder will induce higher tensile force in chip capacitor when temperature changes and result in cracking. Insufficient solder may detach the capacitor from the PC board.

The ideal condition is to have solder mass controlled to 1/2 to 1/3 of the thickness of the capacitor



b.Soldering duration should be kept as close to recommended times as possible, because excessive duration can detrimentally affect solderability.

c.The peak temperature of reflow soldering is $245 \pm 15^{\circ}\text{C}$.

6. All products in this specification comply with the EU RoHS directive

The EU RoHS Directive refers to the "Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment" stipulated by the

European Union.

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Char.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]
1	C	X7R	0105	25V	Z	51pF~1nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.05	500MΩ	12.5	0.05	500MΩ	12.5	0.05	1000MΩ	1.5×U _k
2	C	X7R	0105	16V	Z	51pF~1nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.05	500MΩ	12.5	0.05	500MΩ	12.5	0.05	1000MΩ	1.5×U _k
3	C	X7R	0105	10V	Z	51pF~1nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.05	500MΩ	12.5	0.05	500MΩ	12.5	0.05	1000MΩ	1.5×U _k
4	C	X7R	0201	50V	A	100pF~10nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	1000MΩ or 25Q-F	1.5×U _k
5	C	X7R	0201	25V	A	100pF~10nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	1000MΩ or 25Q-F	1.5×U _k
6	C	X7R	0201	16V	A	100pF~22nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	1000MΩ or 10Q-F	1.5×U _k
7	C	X7R	0201	10V	A	100pF~22nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	1000MΩ or 10Q-F	1.5×U _k
8	C	X7R	0201	6.3V	A	100pF~22nF	0.035	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	1000MΩ or 10Q-F	1.5×U _k
9	C	X7R	0402	50V	B	100pF~82nF	0.035	C≤25nF:10000MΩ, C>25nF:50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	15	0.07	1000MΩ or 25Q-F	1.5×U _k
10	C	X7R	0402	50V	N	33nF~100nF	0.035	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	15	0.07	1000MΩ or 25Q-F	1.5×U _k
11	C	X7R	0402	50V	C	100nF	0.035	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MΩ or 12.5Q-F	12.5	0.07	500MΩ or 12.5Q-F	15	0.07	1000MΩ or 25Q-F	1.5×U _k
12	C	X7R	0402	25V	B	100pF~100nF	C<100nF:0.035, C=100nF:0.05	C≤25nF:10000MΩ, C>25nF:50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	15	C<100nF:0.07, C=100nF:0.1	1000MΩ or 25Q-F	1.5×U _k
13	C	X7R	0402	25V	N	100nF~220nF	C≤100nF:0.035, C>100nF:0.1	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 25Q-F	1.5×U _k
14	C	X7R	0402	25V	N	470nF	0.1	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	500MΩ or 12.5Q-F	15	0.2	1000MΩ or 25Q-F	1.0×U _k
15	C	X7R	0402	16V	B	100pF~100nF	C<100nF:0.035, C=100nF:0.05	C≤25nF:10000MΩ, C>25nF:50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	15	C<100nF:0.07, C=100nF:0.1	1000MΩ or 25Q-F	1.5×U _k
16	C	X7R	0402	16V	N	100nF~470nF	C≤100nF:0.035, C>100nF:0.1	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 10Q-F	1.5×U _k
17	C	X7R	0402	10V	B	100pF~220nF	C<100nF:0.035, C=100nF:0.05, C>100nF:0.1	C≤25nF:10000MΩ, C>25nF:50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C<100nF:0.07, C=100nF:0.1, C>100nF:0.2	500MΩ or 12.5Q-F	12.5	C<100nF:0.07, C=100nF:0.1, C>100nF:0.2	500MΩ or 12.5Q-F	15	C<100nF:0.07, C=100nF:0.1, C>100nF:0.2	1000MΩ or 10Q-F	1.5×U _k
18	C	X7R	0402	10V	N	100nF~470nF	C≤100nF:0.035, C>100nF:0.1	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 10Q-F	1.5×U _k
19	C	X7R	0402	6.3V	B	100pF~100nF	C<100nF:0.035, C=100nF:0.05	C≤25nF:10000MΩ, C>25nF:50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	12.5	C<100nF:0.07, C=100nF:0.1	500MΩ or 12.5Q-F	15	C<100nF:0.07, C=100nF:0.1	1000MΩ or 10Q-F	1.5×U _k
20	C	X7R	0402	6.3V	N	100nF~470nF	C≤100nF:0.035, C>100nF:0.1	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 12.5Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 10Q-F	1.5×U _k
21	C	X7R	0402	6.3V	N	1μF	0.125	50Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Q-F	12.5	0.2	12.5Q-F	15	0.2	1000MΩ or 10Q-F	1.0×U _k
22	C	X7R	0603	50V	D	220pF~1μF	C≤100nF:0.035, C>100nF:0.1	C≤25nF:10000MΩ, C>25nF:100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 50Q-F	1.5×U _k
23	C	X7R	0603	50V	K	220pF~1μF	C≤100nF:0.035, C>100nF:0.1	C≤25nF:10000MΩ, C>25nF:100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 50Q-F	1.5×U _k
24	C	X7R	0603	35V	D	1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	1000MΩ or 25Q-F	1.0×U _k
25	C	X7R	0603	25V	D	10nF~1μF	C≤100nF:0.035, C>100nF:0.1	C≤25nF:10000MΩ, C>25nF:100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	12.5	C≤100nF:0.07 C>100nF:0.2	500MΩ or 25Q-F	15	C≤100nF:0.07 C>100nF:0.2	1000MΩ or 50Q-F	1.5×U _k
26	C	X7R	0603	25V	K	100nF~470nF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Q-F	12.5	0.2	500MΩ or 25Q-F	15	0.2	1000MΩ or 50Q-F	1.5×U _k
27	C	X7R	0603	25V	K	1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	1000MΩ or 25Q-F	1.5×U _k
28	C	X7R	0603	16V	D	100nF~1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Q-F	12.5	0.2	500MΩ or 25Q-F	15	0.2	1000MΩ or 10Q-F	1.5×U _k
29	C	X7R	0603	16V	K	1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	500MΩ or 12.5Q-F	12.5	0.2	1000MΩ or 25Q-F	1.5×U _k
30	C	X7R	0603	16V	K	2.2μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.2	5Q-F	25	0.2	5Q-F	25	0.2	10Q-F	1.5×U _k
31	C	X7R	0603	10V	D	100nF~1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Q-F	12.5	0.2	500MΩ or 25Q-F	15	0.2	1000MΩ or 10Q-F	1.5×U _k
32	C	X7R	0603	10V	K	2.2μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	5Q-F	12.5	0.2	5Q-F	12.5	0.2	10Q-F	1.5×U _k
33	C	X7R	0603	6.3V	D	100nF~1μF	0.1	100Q-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Q-F	12.5	0.2	500MΩ or 25Q-F	15	0.2	1000MΩ or 10Q-F	1.5×U _k
34	C	X7R	0603	6.3V	D																			

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Char.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]
41	C	X7R	0805	35V	H	4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	10	7.5	12.5	0.2	12.5Ω·F	12.5	0.2	12.5Ω·F	12.5	0.2	25Ω·F	1.5×U _B
42	C	X7R	0805	25V	H	220nF~4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _B
43	C	X7R	0805	16V	H	1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _B
44	C	X7R	0805	16V	H	2.2μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.2	5Ω·F	25	0.2	5Ω·F	25	0.2	10Ω·F	1.5×U _B
45	C	X7R	0805	16V	H	4.7μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	12.5	7.5	7.5	12.5	0.2	10Ω·F	20	0.2	5Ω·F	20	0.2	10Ω·F	1.0×U _B
46	C	X7R	0805	16V	H	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _B
47	C	X7R	0805	10V	H	4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
48	C	X7R	0805	10V	H	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	12.5	7.5	7.5	12.5	0.2	10Ω·F	12.5	0.2	5Ω·F	12.5	0.2	10Ω·F	1.5×U _B
49	C	X7R	0805	6.3V	H	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
50	C	X7R	1206	63V	L	1μF	0.05	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.075	10Ω·F	15	0.075	10Ω·F	15	0.075	50Ω·F	2.0×U _B
51	C	X7R	1206	50V	Y	100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _B
52	C	X7R	1206	50V	L	100nF~1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _B
53	C	X7R	1206	50V	L	2.2μF~4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _B
54	C	X7R	1206	25V	L	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
55	C	X7R	1206	25V	L	2.2μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
56	C	X7R	1206	25V	L	4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.125	10Ω·F	12.5	0.15	10Ω·F	12.5	0.125	10Ω·F	1.5×U _B
57	C	X7R	1206	16V	O	1μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 10Ω·F	12.5	0.2	500MΩ or 10Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _B
58	C	X7R	1206	16V	L	2.2μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
59	C	X7R	1206	16V	L	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
60	C	X7R	1210	50V	3	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	20	0.2	500MΩ or 12.5Ω·F	20	0.2	500MΩ or 12.5Ω·F	20	0.2	1000MΩ or 25Ω·F	1.5×U _B
61	C	X7R	1210	25V	R	22μF	0.1	50Ω·F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	20	0.2	1000MΩ or 50Ω·F	1.5×U _B
62	C	X7R	1210	16V	R	22μF	0.1	50Ω·F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	20	0.2	1000MΩ or 50Ω·F	1.5×U _B
63	C	X7R	1210	10V	R	47μF	0.1	50Ω·F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
64	C	X5R	ABA4	10V	1	100pF~680pF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ	12.5	0.2	500MΩ	12.5	0.2	1000MΩ	1.5×U _B
65	C	X5R	ABA4	6.3V	1	1nF~10nF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	0.5Ω·F	12.5	0.2	0.5Ω·F	12.5	0.2	0.5Ω·F	1.5×U _B
66	C	X5R	ABA4	6.3V	1	22nF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	0.05Ω·F	15	0.2	0.05Ω·F	15	0.2	0.05Ω·F	1.0×U _B
67	C	X5R	ABA4	4.0V	1	1nF~10nF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	0.5Ω·F	12.5	0.2	0.5Ω·F	12.5	0.2	0.5Ω·F	1.5×U _B
68	C	X5R	ABA4	4.0V	1	22nF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	0.05Ω·F	15	0.2	0.05Ω·F	15	0.2	0.05Ω·F	1.5×U _B
69	C	X5R	0105	16V	Z	51pF~10nF	0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
70	C	X5R	0105	10V	Z	51pF~100nF	0.1	C≤25nF:10000MΩ, C>25nF:50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
71	C	X5R	0105	6.3V	Z	150pF~100nF	0.1	C≤25nF:10000MΩ, C>25nF:50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
72	C	X5R	0105	6.3V	Z	220nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.2	5Ω·F	25	0.2	5Ω·F	25	0.2	10Ω·F	1.5×U _B
73	C	X5R	0105	6.3V	Z	470nF	0.125	50Ω·F	1.0±0.1KHz	0.5±0.1	7.5	10	15	7.5	12.5	0.25	10Ω·F	12.5	0.25	10Ω·F	12.5	0.25	10Ω·F	1.0×U _B
74	C	X5R	0105	4.0V	Z	15nF~100nF	0.1	C≤25nF:10000MΩ, C>25nF:50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 25Ω·F	1.5×U _B
75	C	X5R	0105	4.0V	Z	220nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	25	0.2	5Ω·F	12.5	0.2	5Ω·F	12.5	0.2	5Ω·F	1.5×U _B
76	C	X5R	0201	50V	A	100pF~15nF	C≤3.3nF:0.025, 3.3nF<C≤10nF: 0.035, C>10nF:0.1	10000MΩ	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	500MΩ or 12.5Ω·F	12.5	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	500MΩ or 12.5Ω·F	15	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	1000MΩ or 25Ω·F	1.5×U _B
77	C	X5R	0201	35V	X	18nF~100nF	0.1	C≤25nF:10000MΩ, C>25nF:50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _B
78	C	X5R	0201	25V	A	100pF~100nF	C≤3.3nF:0.025, 3.3nF<C≤10nF: 0.035, C>10nF:0.1	C≤25nF:10000MΩ, C>25nF:50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	500MΩ or 12.5Ω·F	12.5	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	500MΩ or 12.5Ω·F	15	C≤3.3nF:0.05, 3.3nF<C≤10nF: 0.07, C>10nF:0.2,	1000MΩ or 25Ω·F	1.5×U _B
79	C	X5R	0201	25V	J	100nF~220nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _B

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Char.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]					Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]
80	C	XSR	Q201	25V	F	100nF~470nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
81	C	XSR	Q201	25V	X	100nF~470nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
82	C	XSR	Q201	16V	A	150pF~150nF	C≤3.3nF:0.025, 3.3nF < C≤10nF: 0.035, C>10nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	15	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	1000MQ or 10Ω F	1.5×U _B
83	C	XSR	Q201	16V	J	100nF~220nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 10Ω F	1.5×U _B
84	C	XSR	Q201	16V	X	330nF~820nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 10Ω F	1.5×U _B
85	C	XSR	Q201	16V	X	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 10Ω F	1.0×U _B
86	C	XSR	Q201	10V	A	150pF~120nF	C≤3.3nF:0.025, 3.3nF < C≤10nF: 0.035, C>10nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	15	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	1000MQ or 10Ω F	1.5×U _B
87	C	XSR	Q201	10V	J	100nF~470nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 10Ω F	1.5×U _B
88	C	XSR	Q201	10V	J	1μF	0.1	10Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.25	0.5Ω F	25	0.25	0.5Ω F	25	0.25	0.5Ω F	1.0×U _B
89	C	XSR	Q201	10V	F	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	0.5Ω F	25	0.2	0.5Ω F	25	0.2	0.5Ω F	1.5×U _B
90	C	XSR	Q201	10V	F	2.2μF	0.15	10Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.3	0.5Ω F	12.5	0.3	0.5Ω F	12.5	0.3	0.5Ω F	1.0×U _B
91	C	XSR	Q201	10V	X	330nF~820nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω F	12.5	0.2	12.5Ω F	15	0.2	10Ω F	1.5×U _B
92	C	XSR	Q201	10V	X	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	0.5Ω F	25	0.2	0.5Ω F	25	0.2	0.5Ω F	1.5×U _B
93	C	XSR	Q201	10V	X	2.2μF	0.15	10Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.3	0.5Ω F	12.5	0.3	0.5Ω F	12.5	0.3	0.5Ω F	1.0×U _B
94	C	XSR	Q201	6.3V	A	150pF~220nF	C≤3.3nF:0.025, 3.3nF < C≤10nF: 0.035, C>10nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	12.5	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	500MQ or 12.5Ω F	15	C≤3.3nF:0.05, 3.3nF < C≤10nF: 0.07, C>10nF:0.2	1000MQ or 10Ω F	1.5×U _B
95	C	XSR	Q201	6.3V	J	100nF~1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 10Ω F	1.5×U _B
96	C	XSR	Q201	6.3V	J	2.2μF	0.125	10Ω F	1.0±0.1KHz	1.0±0.2	15	10	20	15	12.5	0.2	0.5Ω F	12.5	0.25	0.5Ω F	12.5	0.25	0.5Ω F	1.0×U _B
97	C	XSR	Q201	6.3V	F	2.2μF	0.125	10Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.25	0.5Ω F	12.5	0.25	0.5Ω F	12.5	0.25	0.5Ω F	1.0×U _B
98	C	XSR	Q201	6.3V	X	680nF~1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω F	12.5	0.2	12.5Ω F	15	0.2	10Ω F	1.5×U _B
99	C	XSR	Q201	6.3V	X	2.2μF	0.125	10Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.25	0.5Ω F	12.5	0.25	0.5Ω F	12.5	0.25	0.5Ω F	1.0×U _B
100	C	XSR	Q201	6.3V	B	4.7μF	0.1	50Ω F	1.0±0.1KHz	0.5±0.1	15	10	15	7.5	12.5	0.2	0.5Ω F	12.5	0.2	0.5Ω F	12.5	0.2	0.5Ω F	1.0×U _B
101	C	XSR	Q201	4.0V	J	470nF~680nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω F	12.5	0.2	12.5Ω F	15	0.2	10Ω F	1.5×U _B
102	C	XSR	Q201	4.0V	J	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	5Ω F	12.5	0.2	5Ω F	15	0.2	5Ω F	1.5×U _B
103	C	XSR	Q201	4.0V	X	680nF~1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω F	12.5	0.2	12.5Ω F	15	0.2	10Ω F	1.5×U _B
104	C	XSR	Q201	4.0V	X	2.2μF~4.7μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω F	12.5	0.2	12.5Ω F	15	0.2	10Ω F	1.0×U _B
105	C	XSR	0402	50V	B	100pF~330nF	C≤47nF:0.035, C>47nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	12.5	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	15	C≤47nF:0.07, C>47nF:0.2	1000MQ or 25Ω F	1.5×U _B
106	C	XSR	0402	50V	N	27nF~47nF	0.035	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.07	500MQ or 12.5Ω F	12.5	0.07	500MQ or 12.5Ω F	15	0.07	1000MQ or 25Ω F	1.5×U _B
107	C	XSR	0402	50V	N	470nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
108	C	XSR	0402	50V	C	56nF~100nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
109	C	XSR	0402	50V	C	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.2	5Ω F	25	0.2	5Ω F	25	0.2	10Ω F	1.5×U _B
110	C	XSR	0402	35V	C	56nF~100nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
111	C	XSR	0402	35V	C	1μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
112	C	XSR	0402	25V	B	120pF~470nF	C≤47nF:0.035, C>47nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	12.5	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	15	C≤47nF:0.07, C>47nF:0.2	1000MQ or 25Ω F	1.5×U _B
113	C	XSR	0402	25V	B	1μF	0.125	50Ω F	1.0±0.1KHz	1.0±0.2	12.5	12.5	15	12.5	12.5	0.2	50Ω F	20	0.2	10Ω F	15	0.2	10Ω F	1.0×U _B
114	C	XSR	0402	25V	N	82nF~820nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MQ or 12.5Ω F	12.5	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
115	C	XSR	0402	25V	N	2.2μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MQ or 12.5Ω F	15	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
116	C	XSR	0402	25V	C	2.2μF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MQ or 12.5Ω F	15	0.2	500MQ or 12.5Ω F	15	0.2	1000MQ or 25Ω F	1.5×U _B
117	C	XSR	0402	25V	C	4.7μF	0.15	50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	7.5	12.5	0.25	10Ω F	12.5	0.25	10Ω F	12.5	0.25	10Ω F	1.0×U _B
118	C	XSR	0402	16V	B	120pF~1μF	C≤47nF:0.035, C>47nF:0.1	C≤25nF:10000MQ, C>25nF:50Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	15	C≤47nF:0.07, C>47nF:0.2	500MQ or 12.5Ω F	15	C≤47nF:0.07, C>47nF:0.2	1000MQ or 10Ω F	1.5×U _B

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]					Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
119	C	XSR	0402	16V	N	100nF~2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _B
120	C	XSR	0402	16V	C	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	10Ω-F	1.5×U _B
121	C	XSR	0402	16V	C	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	7.5	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	1.0×U _B
122	C	XSR	0402	10V	B	120pF~820nF	C≤47nF0.035, C>47nF0.1	C≤25nF10000MΩ, C>25nF50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	C≤47nF0.07, C>47nF0.2	500MΩ or 12.5Ω-F	15	C≤47nF0.07, C>47nF0.2	500MΩ or 12.5Ω-F	15	C≤47nF0.07, C>47nF0.2	1000MΩ or 10Ω-F	1.5×U _B
123	C	XSR	0402	10V	B	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	12.5	12.5	15	12.5	12.5	0.2	10Ω-F	20	0.2	10Ω-F	15	0.2	10Ω-F	1.5×U _B
124	C	XSR	0402	10V	B	2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.15	10Ω-F	25	0.2	5Ω-F	25	0.2	10Ω-F	1.5×U _B
125	C	XSR	0402	10V	N	100nF~820nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	10Ω-F	1.5×U _B
126	C	XSR	0402	10V	N	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	12.5	15	15	0.2	10Ω-F	15	0.2	5Ω-F	15	0.2	10Ω-F	1.5×U _B
127	C	XSR	0402	10V	N	4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.2	5Ω-F	25	0.2	5Ω-F	25	0.2	10Ω-F	1.5×U _B
128	C	XSR	0402	10V	C	1μF~4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	10Ω-F	1.5×U _B
129	C	XSR	0402	10V	C	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	10Ω-F	1.0×U _B
130	C	XSR	0402	10V	U	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω-F	12.5	0.2	12.5Ω-F	12.5	0.2	25Ω-F	1.0×U _B
131	C	XSR	0402	10V	U	22μF	0.1	20Ω-F	120±24Hz	0.5±0.1	15	10	15	15	50	0.4	1Ω-F	50	0.4	1Ω-F	25	0.4	2Ω-F	1.0×U _B
132	C	XSR	0402	6.3V	A	4.7μF	0.1	10Ω-F	1.0±0.1KHz	0.5±0.1	15	10	15	15	30	0.2	2Ω-F	30	0.2	2Ω-F	30	0.2	2Ω-F	1.5×U _B
133	C	XSR	0402	6.3V	B	120pF~1μF	C≤47nF0.035, C>47nF0.1	C≤25nF10000MΩ, C>25nF50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	C≤47nF0.07, C>47nF0.2	500MΩ or 12.5Ω-F	15	C≤47nF0.07, C>47nF0.2	500MΩ or 12.5Ω-F	15	C≤47nF0.07, C>47nF0.2	1000MΩ or 10Ω-F	1.5×U _B
134	C	XSR	0402	6.3V	B	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	7.5	12.5	0.2	12.5Ω-F	12.5	0.2	12.5Ω-F	12.5	0.2	25Ω-F	1.5×U _B
135	C	XSR	0402	6.3V	N	100nF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	10Ω-F	1.5×U _B
136	C	XSR	0402	6.3V	C	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	10Ω-F	1.0×U _B
137	C	XSR	0402	6.3V	C	2.2μF~4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	10	12.5	0.25	5Ω-F	12.5	0.25	5Ω-F	12.5	0.25	10Ω-F	1.5×U _B
138	C	XSR	0402	6.3V	C	10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.25	3.5Ω-F	12.5	0.25	3.5Ω-F	12.5	0.25	7Ω-F	1.0×U _B
139	C	XSR	0402	6.3V	C	22μF	0.15	10Ω-F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 1Ω-F	15	0.2	500MΩ or 1Ω-F	15	0.2	1000MΩ or 2Ω-F	1.0×U _B
140	C	XSR	0402	6.3V	U	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 25Ω-F	1.0×U _B
141	C	XSR	0402	6.3V	U	22μF	0.15	10Ω-F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 1Ω-F	15	0.2	500MΩ or 1Ω-F	15	0.2	1000MΩ or 2Ω-F	1.0×U _B
142	C	XSR	0402	4.0V	C	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _B
143	C	XSR	0402	4.0V	C	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _B
144	C	XSR	0402	4.0V	U	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 25Ω-F	1.0×U _B
145	C	XSR	0402	2.5V	U	22μF	0.15	10Ω-F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 1Ω-F	15	0.2	500MΩ or 1Ω-F	15	0.2	1000MΩ or 2Ω-F	1.0×U _B
146	C	XSR	0603	50V	D	220pF~1μF	0.1	C≤25nF10000MΩ, C>25nF100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _B
147	C	XSR	0603	50V	D	2.2μF	0.1	100Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	15	7.5	12.5	0.2	500MΩ or 12.5Ω-F	12.5	0.2	500MΩ or 12.5Ω-F	12.5	0.2	1000MΩ or 25Ω-F	1.5×U _B
148	C	XSR	0603	50V	K	2.2μF	0.1	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _B
149	C	XSR	0603	35V	D	680nF~1μF	0.1	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _B
150	C	XSR	0603	35V	K	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	7.5	15	0.2	25Ω-F	12.5	0.25	12.5Ω-F	12.5	0.25	10Ω-F	1.0×U _B
151	C	XSR	0603	35V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	25	0.3	10Ω-F	25	0.3	10Ω-F	25	0.3	10Ω-F	1.0×U _B
152	C	XSR	0603	25V	S	680nF~2.2μF	0.1	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _B
153	C	XSR	0603	25V	D	100nF~3.9μF	0.1	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _B
154	C	XSR	0603	25V	K	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	7.5	12.5	0.2	50Ω-F	12.5	0.2	10Ω-F	12.5	0.2	10Ω-F	1.5×U _B
155	C	XSR	0603	25V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.3	10Ω-F	30	0.3	5Ω-F	30	0.3	10Ω-F	1.0×U _B
156	C	XSR	0603	16V	S	680nF~2.2μF	0.125	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _B
157	C	XSR	0603	16V	D	220nF~3.9μF	0.125	100Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω-F	15	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _B
158	C	XSR	0603	16V	U	22μF	0.15	10Ω-F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.25	500MΩ or 1Ω-F	12.5	0.25	500MΩ or 1Ω-F	12.5	0.25	1000MΩ or 2Ω-F	1.5×U _B
159	C	XSR	0603	16V	K	4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	10Ω-F	30	0.2	5Ω-F	30	0.2	10Ω-F	1.5×U _B

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]					Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]
160	C	XSR	0603	16V	K	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	10Ω·F	30	0.2	5Ω·F	30	0.2	10Ω·F	1.5×U _k
161	C	XSR	0603	16V	6	22μF	0.15	10Ω·F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.25	500MΩ or 1Ω·F	12.5	0.25	500MΩ or 1Ω·F	12.5	0.25	1000MΩ or 2Ω·F	1.0×U _k
162	C	XSR	0603	10V	S	4.7μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	30	0.2	2Ω·F	30	0.2	2Ω·F	30	0.2	2Ω·F	1.5×U _k
163	C	XSR	0603	10V	D	680nF~4.7μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
164	C	XSR	0603	10V	K	3.3μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	500MΩ or 12.5Ω·F	12.5	0.2	1000MΩ or 10Ω·F	1.5×U _k
165	C	XSR	0603	10V	K	5.6μF	0.15	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
166	C	XSR	0603	10V	K	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	10Ω·F	25	0.2	5Ω·F	25	0.2	10Ω·F	1.5×U _k
167	C	XSR	0603	10V	K	22μF	0.125	50Ω·F	120±24Hz	0.5±0.1	15	12.5	7.5	15	30	0.25	10Ω·F	30	0.25	5Ω·F	30	0.25	10Ω·F	1.0×U _k
168	C	XSR	0603	10V	4	22μF	0.1	50Ω·F	120±24Hz	0.5±0.1	7.5	10	15	10	12.5	0.2	500MΩ or 8.8Ω·F	12.5	0.2	500MΩ or 8.8Ω·F	12.5	0.2	1000MΩ or 17.0Ω·F	1.0×U _k
169	C	XSR	0603	10V	W	22μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
170	C	XSR	0603	6.3V	D	2.2μF~10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
171	C	XSR	0603	6.3V	K	4.7μF	0.15	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	12.5Ω·F	15	0.2	12.5Ω·F	15	0.2	10Ω·F	1.5×U _k
172	C	XSR	0603	6.3V	K	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	7.5	12.5	0.2	5Ω·F	12.5	0.2	5Ω·F	12.5	0.2	10Ω·F	1.5×U _k
173	C	XSR	0603	6.3V	K	22μF	0.1	50Ω·F	120±24Hz	0.5±0.1	15	10	15	10	12.5	0.25	5Ω·F	12.5	0.25	5Ω·F	12.5	0.25	10Ω·F	1.5×U _k
174	C	XSR	0603	6.3V	K	47μF	0.15	10Ω·F	120±24Hz	0.5±0.1	15	10	15	15	12.5	0.25	1Ω·F	12.5	0.25	1Ω·F	12.5	0.25	2Ω·F	1.0×U _k
175	C	XSR	0603	6.3V	W	22μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
176	C	XSR	0603	4.0V	K	10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
177	C	XSR	0603	4.0V	K	22μF~47μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
178	C	XSR	0805	50V	Y	220pF~2.2μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
179	C	XSR	0805	50V	H	100nF~4.7μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
180	C	XSR	0805	50V	H	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω·F	12.5	0.2	12.5Ω·F	12.5	0.2	25Ω·F	1.0×U _k
181	C	XSR	0805	35V	Y	680nF~2.2μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
182	C	XSR	0805	35V	H	680nF~4.7μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
183	C	XSR	0805	35V	H	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	30	0.2	10Ω·F	30	0.2	10Ω·F	30	0.2	10Ω·F	1.5×U _k
184	C	XSR	0805	25V	Y	680nF~10μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
185	C	XSR	0805	25V	H	220nF~10μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
186	C	XSR	0805	25V	H	22μF	0.125	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	30	0.25	10Ω·F	30	0.25	5Ω·F	30	0.25	10Ω·F	1.0×U _k
187	C	XSR	0805	16V	Y	1μF~10μF	0.125	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
188	C	XSR	0805	16V	Y	22μF	0.125	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
189	C	XSR	0805	16V	H	1μF~10μF	0.125	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
190	C	XSR	0805	16V	H	22μF	0.125	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
191	C	XSR	0805	10V	Y	2.2μF~10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
192	C	XSR	0805	10V	Y	22μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
193	C	XSR	0805	10V	H	2.2μF~10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
194	C	XSR	0805	10V	H	22μF~47μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
195	C	XSR	0805	6.3V	Y	2.2μF~10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
196	C	XSR	0805	6.3V	Y	22μF~47μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
197	C	XSR	0805	6.3V	H	2.2μF~10μF	0.15	100Ω·F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
198	C	XSR	0805	6.3V	H	22μF~100μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
199	C	XSR	0805	4.0V	Y	22μF~47μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
200	C	XSR	0805	4.0V	H	47μF~100μF	0.15	100Ω·F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
201	C	XSR	1206	50V	Y	680nF~4.7μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
202	C	XSR	1206	50V	L	680nF~10μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
203	C	XSR	1206	35V	Y	2.2μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
204	C	XSR	1206	35V	Y	4.7μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
205	C	XSR	1206	25V	P	47μF	0.1	50Ω F	120±24Hz	0.5±0.1	7.5	10	15	15	12.5	0.2	500MΩ or 12.5Ω F	12.5	0.2	500MΩ or 12.5Ω F	12.5	0.2	1000MΩ or 25Ω F	1.5×U _k
206	C	XSR	1206	25V	L	4.7μF~10μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
207	C	XSR	1206	25V	L	22μF	0.1	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.0×U _k
208	C	XSR	1206	16V	Y	4.7μF~10μF	0.125	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
209	C	XSR	1206	16V	Y	22μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.0×U _k
210	C	XSR	1206	16V	L	4.7μF~10μF	0.125	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
211	C	XSR	1206	16V	L	22μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.0×U _k
212	C	XSR	1206	16V	P	47μF	0.1	100Ω F	120±24Hz	0.5±0.1	12.5	10	15	12.5	30	0.2	5Ω F	30	0.2	5Ω F	30	0.2	10Ω F	1.5×U _k
213	C	XSR	1206	10V	O	22μF	0.15	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
214	C	XSR	1206	10V	L	22μF~47μF	0.15	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.0×U _k
215	C	XSR	1206	10V	P	100μF	0.1	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	25	0.2	5Ω F	25	0.2	5Ω F	25	0.2	10Ω F	1.5×U _k
216	C	XSR	1206	6.3V	O	22μF~47μF	0.15	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.0×U _k
217	C	XSR	1206	6.3V	L	22μF~100μF	0.15	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.0×U _k
218	C	XSR	1210	50V	R	10μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
219	C	XSR	1210	25V	L	680nF~10μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
220	C	XSR	1210	25V	Q	680nF~10μF	0.1	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
221	C	XSR	1210	25V	R	22μF	0.125	50Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 12.5Ω F	15	0.2	500MΩ or 12.5Ω F	12.5	0.2	1000MΩ or 25Ω F	1.5×U _k
222	C	XSR	1210	25V	3	47μF	0.1	100Ω F	120±24Hz	0.5±0.1	15	12.5	15	15	30	0.2	10Ω F	30	0.2	5Ω F	30	0.2	10Ω F	1.5×U _k
223	C	XSR	1210	16V	L	4.7μF~10μF	0.125	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
224	C	XSR	1210	16V	L	22μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
225	C	XSR	1210	16V	Q	4.7μF~10μF	0.125	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
226	C	XSR	1210	16V	Q	22μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
227	C	XSR	1210	16V	R	4.7μF~10μF	0.125	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
228	C	XSR	1210	16V	R	22μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
229	C	XSR	1210	16V	R	47μF	0.125	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	20	0.2	5Ω F	20	0.2	5Ω F	20	0.2	10Ω F	1.5×U _k
230	C	XSR	1210	16V	3	100μF	0.1	100Ω F	120±24Hz	0.5±0.1	7.5	10	15	7.5	12.5	0.125	500MΩ or 25Ω F	12.5	0.125	500MΩ or 25Ω F	12.5	0.125	1000MΩ or 50Ω F	1.5×U _k
231	C	XSR	1210	10V	Q	680nF~10μF	0.15	100Ω F	1.0±0.1KHz	1.0±0.2	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
232	C	XSR	1210	10V	R	22μF	0.15	100Ω F	120±24Hz	0.5±0.1	15	10	15	15	15	0.2	500MΩ or 25Ω F	15	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
233	C	XSR	1210	10V	R	47μF	0.1	50Ω F	120±24Hz	0.5±0.1	7.5	12.5	5	7.5	12.5	0.2	10Ω F	20	0.2	5Ω F	20	0.2	10Ω F	1.5×U _k
234	C	XSR	1210	10V	3	100μF	0.1	50Ω F	120±24Hz	0.5±0.1	7.5	10	15	7.5	12.5	0.2	500MΩ or 10Ω F	12.5	0.2	500MΩ or 10Ω F	12.5	0.2	1000MΩ or 25Ω F	1.5×U _k
235	C	XSR	1210	6.3V	3	220μF	0.1	50Ω F	120±24Hz	0.5±0.1	15	10	15	7.5	12.5	0.2	3.5Ω F	12.5	0.2	3.5Ω F	12.5	0.2	7Ω F	1.5×U _k
236	C	X6S	0105	10V	Z	22nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	1000MΩ or 10Ω F	1.5×U _k
237	C	X6S	0105	4.0V	Z	10nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	1000MΩ or 10Ω F	1.5×U _k
238	C	X6S	0201	25V	A	1nF~1.5nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
239	C	X6S	0201	25V	X	100nF	0.1	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 50Ω F	1.5×U _k
240	C	X6S	0201	16V	A	1nF~1.5nF	0.125	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k
241	C	X6S	0201	16V	J	100nF	0.125	50Ω F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω F	12.5	0.2	500MΩ or 25Ω F	15	0.2	1000MΩ or 10Ω F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
242	C	X6S	Q201	10V	A	1.8nF~100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
243	C	X6S	Q201	10V	J	100nF~470nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
244	C	X6S	Q201	10V	X	220nF, 470nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
245	C	X6S	Q201	10V	X	1μF	0.2	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
246	C	X6S	Q201	6.3V	A	10nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
247	C	X6S	Q201	6.3V	J	100nF~220nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
248	C	X6S	Q201	6.3V	X	470nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
249	C	X6S	Q201	4.0V	A	12nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
250	C	X6S	Q201	4.0V	J	220nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
251	C	X6S	Q201	4.0V	J	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
252	C	X6S	Q201	4.0V	X	470nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
253	C	X6S	Q201	4.0V	X	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
254	C	X6S	Q201	2.5V	X	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
255	C	X6S	0402	50V	C	22nF~100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
256	C	X6S	0402	35V	C	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
257	C	X6S	0402	25V	B	33nF~100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
258	C	X6S	0402	25V	N	330nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
259	C	X6S	0402	25V	N	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
260	C	X6S	0402	25V	C	47nF~470nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
261	C	X6S	0402	25V	C	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
262	C	X6S	0402	16V	B	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
263	C	X6S	0402	16V	N	100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
264	C	X6S	0402	16V	C	220nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
265	C	X6S	0402	10V	B	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
266	C	X6S	0402	10V	N	100nF~470nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
267	C	X6S	0402	10V	N	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
268	C	X6S	0402	10V	C	1μF~2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.2	12.5Ω-F	12.5	0.2	12.5Ω-F	12.5	0.2	25Ω-F	1.5×U _k
269	C	X6S	0402	10V	C	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	15	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	1.0×U _k
270	C	X6S	0402	6.3V	B	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	22	15	12.5	0.2	12.5Ω-F	12.5	0.2	12.5Ω-F	12.5	0.2	25Ω-F	1.5×U _k
271	C	X6S	0402	6.3V	B	2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
272	C	X6S	0402	6.3V	N	100nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
273	C	X6S	0402	6.3V	N	1μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
274	C	X6S	0402	6.3V	N	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
275	C	X6S	0402	6.3V	C	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
276	C	X6S	0402	6.3V	C	10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	10	15	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	12.5	0.25	10Ω-F	1.0×U _k
277	C	X6S	0402	4.0V	B	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
278	C	X6S	0402	4.0V	B	2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
279	C	X6S	0402	4.0V	U	22μF	0.2	20Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	5Ω-F	12.5	0.2	5Ω-F	12.5	0.2	5Ω-F	1.0×U _k
280	C	X6S	0402	4.0V	C	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
281	C	X6S	0402	2.5V	C	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	10	15	7.5	12.5	0.2	12.5Ω-F	12.5	0.2	12.5Ω-F	12.5	0.2	25Ω-F	1.0×U _k
282	C	X6S	0603	35V	D	100nF~1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]	
283	C	X6S	0603	35V	K	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
284	C	X6S	0603	25V	D	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
285	C	X6S	0603	25V	K	2.2μF~4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
286	C	X6S	0603	16V	D	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
287	C	X6S	0603	16V	K	2.2μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
288	C	X6S	0603	10V	D	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
289	C	X6S	0603	10V	K	4.7μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
290	C	X6S	0603	6.3V	D	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
291	C	X6S	0603	6.3V	K	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
292	C	X6S	0603	6.3V	K	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
293	C	X6S	0603	6.3V	W	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
294	C	X6S	0603	4.0V	D	4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
295	C	X6S	0603	4.0V	K	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
296	C	X6S	0603	4.0V	K	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
297	C	X6S	0603	4.0V	W	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
298	C	X6S	0603	2.5V	K	47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
299	C	X6S	0805	50V	H	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
300	C	X6S	0805	35V	H	2.2μF~4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
301	C	X6S	0805	25V	Y	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
302	C	X6S	0805	25V	H	1μF~10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
303	C	X6S	0805	16V	H	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
304	C	X6S	0805	16V	H	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
305	C	X6S	0805	10V	H	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
306	C	X6S	0805	10V	H	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
307	C	X6S	0805	6.3V	Y	2.2μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
308	C	X6S	0805	6.3V	H	2.2μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
309	C	X6S	0805	6.3V	H	47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
310	C	X6S	0805	6.3V	H	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
311	C	X6S	0805	4.0V	Y	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
312	C	X6S	0805	4.0V	Y	22μF~47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
313	C	X6S	0805	4.0V	H	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
314	C	X6S	0805	4.0V	H	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
315	C	X6S	0805	4.0V	H	47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
316	C	X6S	0805	4.0V	H	100μF	0.2	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	15	0.2	5Ω-F	15	0.2	5Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
317	C	X6S	1206	50V	L	1μF~4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
318	C	X6S	1206	35V	L	4.7μF~10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
319	C	X6S	1206	25V	L	1μF~10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
320	C	X6S	1206	25V	L	22μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
321	C	X6S	1206	16V	L	10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
322	C	X6S	1206	16V	L	12μF~22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
323	C	X6S	1206	10V	Y	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
324	C	X6S	1206	10V	Y	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 10Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
325	C	X6S	1206	10V	O	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 10Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
326	C	X6S	1206	10V	O	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
327	C	X6S	1206	10V	L	4.7μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
328	C	X6S	1206	10V	L	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
329	C	X6S	1206	10V	P	47μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	30	0.2	5Ω-F	30	0.2	5Ω-F	30	0.2	1000MΩ or 10Ω-F	1.5×U _k
330	C	X6S	1206	6.3V	L	47μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	30	0.2	10Ω-F	30	0.2	10Ω-F	20	0.2	1000MΩ or 10Ω-F	1.0×U _k
331	C	X6S	1206	4.0V	L	22μF~100μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
332	C	X6S	1210	50V	R	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
333	C	X6S	1210	25V	R	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
334	C	X6S	1210	25V	R	22μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
335	C	X6S	1210	16V	R	22μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
336	C	X6S	1210	16V	3	47μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	30	0.2	5Ω-F	30	0.2	5Ω-F	20	0.2	1000MΩ or 10Ω-F	1.0×U _k
337	C	X6S	1210	10V	R	10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
338	C	X6S	1210	10V	R	22μF~47μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
339	C	X6S	1210	6.3V	3	100μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	10	15	30	0.2	10Ω-F	30	0.2	5Ω-F	20	0.2	10Ω-F	1.5×U _k
340	C	X6S	1210	4.0V	3	100μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
341	C	X6T	0105	6.3V	Z	100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	1000MΩ or 10Ω-F	1.0×U _k
342	C	X6T	0105	4.0V	Z	100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	1000MΩ or 10Ω-F	1.5×U _k
343	C	X6T	0105	2.5V	Z	220nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	1000MΩ or 10Ω-F	1.0×U _k
344	C	X6T	0201	25V	X	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
345	C	X6T	0201	16V	J	100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
346	C	X6T	0201	10V	A	10nF~100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
347	C	X6T	0201	10V	J	220nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
348	C	X6T	0201	10V	X	220nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
349	C	X6T	0201	6.3V	A	10nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
350	C	X6T	0201	6.3V	J	220nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
351	C	X6T	0201	6.3V	X	470nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
352	C	X6T	0201	4.0V	A	47nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
353	C	X6T	0201	4.0V	J	220nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
354	C	X6T	0201	4.0V	X	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
355	C	X6T	0201	4.0V	X	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
356	C	X6T	0402	50V	C	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
357	C	X6T	0402	35V	C	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
358	C	X6T	0402	25V	C	100nF~1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
359	C	X6T	0402	16V	N	100nF~180nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
360	C	X6T	0402	16V	C	220nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
361	C	X6T	0402	10V	B	100nF~150nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
362	C	X6T	0402	10V	N	180nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
363	C	X6T	0402	10V	C	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
364	C	X6T	0402	6.3V	B	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]	
365	C	X6T	0402	6.3V	B	2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
366	C	X6T	0402	6.3V	N	100nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
367	C	X6T	0402	6.3V	N	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
368	C	X6T	0402	6.3V	C	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
369	C	X6T	0402	4.0V	B	220nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
370	C	X6T	0402	4.0V	B	2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
371	C	X6T	0402	4.0V	C	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
372	C	X6T	0402	2.5V	C	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
373	C	X6T	0402	2.5V	U	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
374	C	X6T	0603	35V	D	100nF~1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
375	C	X6T	0603	35V	K	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
376	C	X6T	0603	25V	D	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
377	C	X6T	0603	25V	K	2.2μF, 4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
378	C	X6T	0603	16V	D	220nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
379	C	X6T	0603	16V	K	4.7μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
380	C	X6T	0603	10V	D	220nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
381	C	X6T	0603	10V	K	4.7μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
382	C	X6T	0603	6.3V	D	220nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
383	C	X6T	0603	6.3V	D	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
384	C	X6T	0603	6.3V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
385	C	X6T	0603	6.3V	K	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
386	C	X6T	0603	6.3V	W	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
387	C	X6T	0603	4.0V	D	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
388	C	X6T	0603	4.0V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
389	C	X6T	0603	4.0V	K	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
390	C	X6T	0603	2.5V	K	47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
391	C	X6T	0805	50V	H	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
392	C	X6T	0805	35V	H	2.2μF~4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
393	C	X6T	0805	25V	Y	330nF~2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
394	C	X6T	0805	25V	H	330nF~10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
395	C	X6T	0805	16V	Y	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
396	C	X6T	0805	16V	H	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
397	C	X6T	0805	16V	H	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
398	C	X6T	0805	10V	Y	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
399	C	X6T	0805	10V	H	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
400	C	X6T	0805	10V	H	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
401	C	X6T	0805	6.3V	Y	2.2μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
402	C	X6T	0805	6.3V	Y	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
403	C	X6T	0805	6.3V	H	2.2μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
404	C	X6T	0805	6.3V	H	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
405	C	X6T	0805	4.0V	Y	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
406	C	X6T	0805	4.0V	Y	22μF~47μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
407	C	X6T	0805	4.0V	H	4.7μF~10μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
408	C	X6T	0805	4.0V	H	22μF~47μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
409	C	X6T	1206	50V	L	1μF~4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
410	C	X6T	1206	35V	L	4.7μF~10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
411	C	X6T	1206	25V	L	1μF~10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
412	C	X6T	1206	16V	L	1μF~10μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
413	C	X6T	1206	10V	Y	1μF~10μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
414	C	X6T	1206	10V	Y	22μF	0.125	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
415	C	X6T	1206	10V	O	1μF~10μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
416	C	X6T	1206	10V	O	22μF	0.125	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
417	C	X6T	1206	10V	L	2.2μF~10μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
418	C	X6T	1206	10V	L	22μF	0.125	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
419	C	X6T	1206	6.3V	L	4.7μF~10μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
420	C	X6T	1206	6.3V	L	22μF~47μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
421	C	X6T	1206	4.0V	L	10μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
422	C	X6T	1206	4.0V	L	22μF~100μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
423	C	X6T	1210	50V	R	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
424	C	X7S	0105	10V	Z	2.2nF~22nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	1000MΩ or 10Ω·F	1.0×U _k
425	C	X7S	0201	25V	A	22nF~47nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
426	C	X7S	0201	16V	X	100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
427	C	X7S	0201	10V	A	22nF~100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
428	C	X7S	0201	10V	J	100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
429	C	X7S	0201	6.3V	A	22nF~100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
430	C	X7S	0201	6.3V	J	100nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
431	C	X7S	0402	25V	N	470nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.0×U _k
432	C	X7S	0402	16V	N	470nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
433	C	X7S	0402	16V	N	1μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
434	C	X7S	0402	10V	B	1μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
435	C	X7S	0402	10V	N	470nF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	500MΩ or 25Ω·F	15	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
436	C	X7S	0402	10V	C	2.2μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	25	0.2	500MΩ or 25Ω·F	25	0.2	500MΩ or 25Ω·F	25	0.2	1000MΩ or 10Ω·F	1.5×U _k
437	C	X7S	0402	6.3V	B	1μF	0.15	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
438	C	X7S	0402	6.3V	N	1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
439	C	X7S	0402	6.3V	N	2.2μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
440	C	X7S	0402	6.3V	C	1μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.25	500MΩ or 12.5Ω·F	15	0.25	500MΩ or 12.5Ω·F	15	0.25	1000MΩ or 10Ω·F	1.5×U _k
441	C	X7S	0402	4.0V	B	1μF	0.15	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
442	C	X7S	0603	25V	K	1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
443	C	X7S	0603	25V	D	2.2μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _k
444	C	X7S	0603	16V	D	1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _k
445	C	X7S	0603	16V	D	2.2μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _k
446	C	X7S	0603	16V	K	1μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	500MΩ or 12.5Ω·F	15	0.2	500MΩ or 12.5Ω·F	15	0.2	1000MΩ or 25Ω·F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C ≤ ± %]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
447	C	X7S	0603	16V	K	4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
448	C	X7S	0603	10V	D	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 25Ω-F	1.5×U _k
449	C	X7S	0603	10V	K	4.7μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
450	C	X7S	0603	6.3V	K	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
451	C	X7S	0603	4.0V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
452	C	X7S	0603	2.5V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
453	C	X7S	0805	35V	H	4.7μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
454	C	X7S	0805	25V	H	2.2μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
455	C	X7S	0805	25V	S	10μF	0.125	10Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	20	0.2	1000MΩ or 5Ω-F	1.5×U _k
456	C	X7S	0805	10V	H	22μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
457	C	X7S	0805	6.3V	H	10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
458	C	X7S	0805	6.3V	H	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
459	C	X7S	1206	16V	L	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
460	C	X7S	1210	6.3V	R	100μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	15	0.2	12.5Ω-F	15	0.2	12.5Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
461	C	X7T	0105	6.3V	Z	10nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	1000MΩ or 10Ω-F	1.0×U _k
462	C	X7T	0105	4.0V	Z	10nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	7.5	10	7.5	7.5	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	1000MΩ or 10Ω-F	1.0×U _k
463	C	X7T	0201	16V	X	100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
464	C	X7T	0201	10V	A	12nF~68nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
465	C	X7T	0201	10V	J	100nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
466	C	X7T	0201	10V	X	220nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
467	C	X7T	0201	6.3V	A	10nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
468	C	X7T	0201	6.3V	J	220nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
469	C	X7T	0201	6.3V	X	470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
470	C	X7T	0201	4.0V	A	12nF~100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
471	C	X7T	0201	4.0V	J	220nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
472	C	X7T	0201	4.0V	X	470nF~1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
473	C	X7T	0201	2.5V	A	100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
474	C	X7T	0201	2.5V	J	220nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
475	C	X7T	0201	2.5V	X	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
476	C	X7T	0201	2.5V	X	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
477	C	X7T	0402	50V	C	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
478	C	X7T	0402	35V	C	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
479	C	X7T	0402	25V	B	100nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
480	C	X7T	0402	25V	C	220nF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
481	C	X7T	0402	16V	B	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
482	C	X7T	0402	16V	N	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
483	C	X7T	0402	16V	C	100nF~470nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
484	C	X7T	0402	16V	C	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
485	C	X7T	0402	10V	B	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
486	C	X7T	0402	10V	N	100nF~470nF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
487	C	X7T	0402	10V	N	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
488	C	X7T	0402	10V	C	220nF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
489	C	X7T	0402	6.3V	B	100nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
490	C	X7T	0402	6.3V	B	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
491	C	X7T	0402	6.3V	N	220nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
492	C	X7T	0402	6.3V	N	1μF~2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
493	C	X7T	0402	6.3V	C	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	500MΩ or 12.5Ω-F	15	0.2	500MΩ or 12.5Ω-F	15	0.2	1000MΩ or 25Ω-F	1.5×U _k
494	C	X7T	0402	4.0V	B	100nF,1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
495	C	X7T	0402	4.0V	B	2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
496	C	X7T	0402	4.0V	N	220nF~470nF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
497	C	X7T	0402	4.0V	N	1μF~2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
498	C	X7T	0402	4.0V	C	4.7μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
499	C	X7T	0402	2.5V	B	1μF~2.2μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
500	C	X7T	0603	35V	K	2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.0×U _k
501	C	X7T	0603	25V	D	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
502	C	X7T	0603	25V	K	1μF~2.2μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
503	C	X7T	0603	16V	D	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
504	C	X7T	0603	16V	K	2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
505	C	X7T	0603	10V	D	1μF~2.2μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
506	C	X7T	0603	10V	K	4.7μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
507	C	X7T	0603	6.3V	D	1μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
508	C	X7T	0603	6.3V	D	2.2μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
509	C	X7T	0603	6.3V	K	4.7μF~10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
510	C	X7T	0603	4.0V	D	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
511	C	X7T	0603	4.0V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
512	C	X7T	0603	2.5V	D	4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
513	C	X7T	0603	2.5V	K	10μF	0.15	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
514	C	X7T	0603	2.5V	K	47μF	0.1	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	15	0.2	200MΩ or 5Ω-F	15	0.2	200MΩ or 5Ω-F	15	0.2	200MΩ or 5Ω-F	1.5×U _k
515	C	X7T	0805	50V	H	1μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
516	C	X7T	0805	25V	H	4.7μF~10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
517	C	X7T	0805	25V	S	10μF	0.1	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 50Ω-F	1.5×U _k
518	C	X7T	0805	16V	Y	1μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
519	C	X7T	0805	16V	H	1μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
520	C	X7T	0805	10V	H	2.2μF~10μF	0.125	50Ω-F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
521	C	X7T	0805	10V	H	22μF	0.125	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
522	C	X7T	0805	6.3V	H	2.2μF~10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
523	C	X7T	0805	6.3V	H	22μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
524	C	X7T	0805	4.0V	Y	2.2μF,10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
525	C	X7T	0805	4.0V	H	2.2μF~4.7μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k
526	C	X7T	0805	2.5V	Y	10μF	0.15	50Ω-F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
527	C	X7T	0805	2.5V	Y	22μF~47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.0×U _k
528	C	X7T	0805	2.5V	H	22μF~47μF	0.15	50Ω-F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω-F	12.5	0.2	500MΩ or 25Ω-F	15	0.2	1000MΩ or 10Ω-F	1.5×U _k

Table 5-1 Cap. \ D.F \ I.R. changes after test

No.	Series	Temp. Chara.	Size	Rated Voltage (DC)	Thickness Code	Capacitance	Electrical tests				Resistance to soldering heat	Substrate Bending test	Vibration	Rapid change of temperature	Damp heat (steady state)			High Temperature High Humidity (Steady)			Endurance			
							D.F. [max.]	I.R. [min.]	Measurement Frequency	Measurement Voltage [Vrms]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Cap. [ΔC/C≤±%]	D.F. [max.]	I.R. [min.]	Test Voltage [Vrms]
529	C	X7T	1206	63V	P	4.7μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	15	0.2	100Ω·F	15	0.2	100Ω·F	15	0.2	100Ω·F	1.5×U _R
530	C	X7T	1206	25V	L	1μF,10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _R
531	C	X7T	1206	16V	L	10μF	0.125	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _R
532	C	X7T	1206	6.3V	P	47μF	0.1	100Ω·F	120±24Hz	0.5±0.1	12.5	12.5	10	15	30	0.2	100Ω·F	30	0.2	5Ω·F	30	0.2	100Ω·F	1.0×U _R
533	C	X7T	1206	6.3V	L	4.7μF~10μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _R
534	C	X7T	1206	6.3V	L	22μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _R
535	C	X7T	1206	4.0V	Y	22μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _R
536	C	X7T	1206	4.0V	O	1μF	0.15	50Ω·F	1.0±0.1KHz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.5×U _R
537	C	X7T	1206	4.0V	L	22μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _R
538	C	X7T	1206	2.5V	L	22μF~100μF	0.15	50Ω·F	120±24Hz	0.5±0.1	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 10Ω·F	1.0×U _R
539	C	X7T	1210	50V	R	10μF	0.1	50Ω·F	1.0±0.1KHz	1.0±0.2	15	12.5	15	15	12.5	0.2	500MΩ or 25Ω·F	12.5	0.2	500MΩ or 25Ω·F	15	0.2	1000MΩ or 50Ω·F	1.5×U _R
540	C	X7T	1210	50V	3	10μF	0.1	100Ω·F	1.0±0.1KHz	1.0±0.2	7.5	12.5	5	7.5	12.5	0.2	500MΩ or 12.5Ω·F	20	0.2	500MΩ or 12.5Ω·F	20	0.2	1000MΩ or 25Ω·F	1.5×U _R