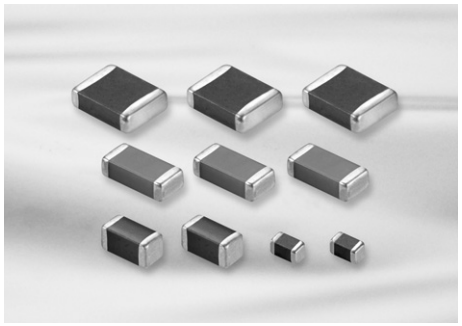


Feature

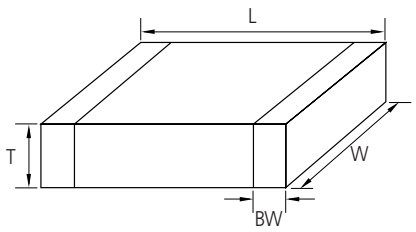
- Wide selection of size : from 0402 to 1812
- Highly reliable tolerance and high speed automatic chip placement on PCBs
- Wide capacitance range
- Highly reliable performance
- Highly resistant termination metal
- Tape & reel for surface mount assembly

Application

- Desktop PC, Note PC, HHP, DC-DC Converter, DSC
- LCD TV, LCD Monitor

※ For using special purpose like Military, Medical, Aviation, Automobile device should be following a special specification.

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)				
		L	W	T	Thickness Code	BW
05	0402	1.00±0.05	0.50±0.05	0.50±0.05	5	0.2+0.15/-0.1
10	0603	1.60±0.10	0.80±0.10	0.50±0.05*	5	0.30±0.20
				0.80±0.10	8	
21	0805	2.00±0.10	1.25±0.10	0.85±0.10	C	0.5+0.2/-0.3
				1.25±0.10	F	
		2.00±0.15	1.25±0.15	1.25±0.15	Q	
		2.00±0.20	1.25±0.20	1.25±0.20	Y	
31	1206	3.20±0.20	1.60±0.20	0.60±0.10*	6	0.50±0.30
				0.85±0.10*	C	
				1.15±0.10*	P	
		3.20±0.15	1.60±0.15	1.25±0.15	F	
		3.20±0.20	1.60±0.20	1.60±0.20	H	
32	1210	3.20±0.30	2.50±0.20	0.85±0.10*	C	0.60±0.30
				0.90±0.10*	9	
				1.60±0.20	H	
				1.80±0.20*	U	
				2.00±0.20	I	
				2.50±0.20	J	
		3.20±0.40	2.50±0.30	2.50±0.30	V	
42	1808	4.50±0.40	2.00±0.20	2.00±0.20	I	0.80±0.30
43	1812	4.50±0.40	3.20±0.30	3.20±0.30	L	0.80±0.30

※ * Mark is only applicable to "L" code , 12th code in part number.

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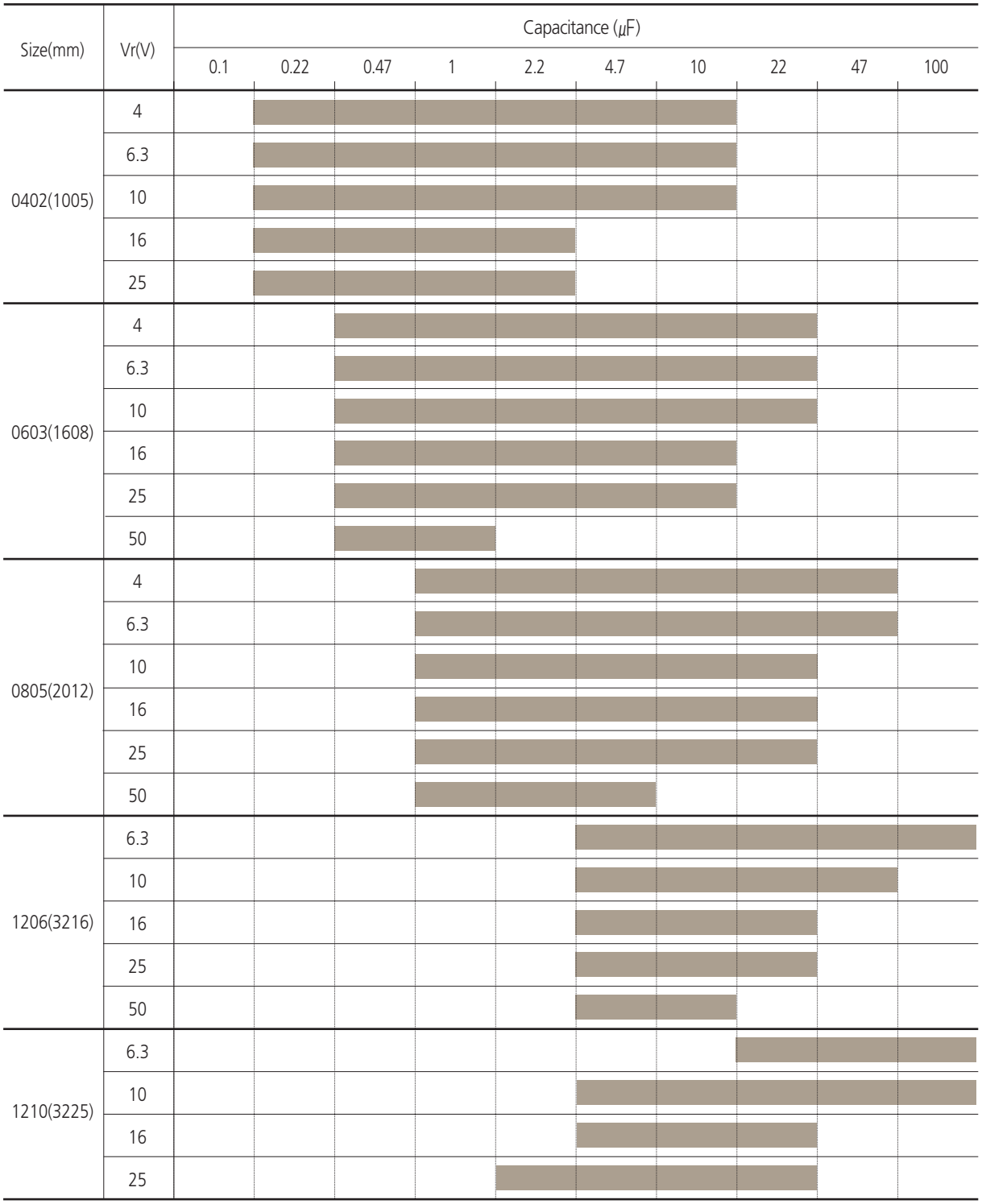
Array Type Capacitors
Low ESL Capacitors
Reliability Test Condition
Premium Capacitors for Automotive Applications
Packaging Specification
Application Manual for Surface Mounting

High Capacitance Table (X5R)



High Capacitance Table_Low Profile (X5R)

Size(mm)	Tmax (mm)	Vr(V)	Capacitance (μF) 1	2.2	4.7	10	22	33	47
0402(1005)	0.3	6.3	X6S						
		10							
		16							
0603(1608)	0.5	6.3							
		10							
		16							
		25							
0805(2012)	0.7	10							
		16							
		25							
	0.95	4						(Tmax=1.0)	
		6.3						(Tmax=1.0)	
		10							
		16							
		25				X6S			
1206(3216)	0.7	10							
	0.95	6.3							
		10							
		16							
		25			X6S				
		50		(Tmax=1.0)	(Tmax=1.0)				
1210(3225)	0.95	16							
	2.0	25							
		35							
		50							

Part Numbering System
General Capacitors
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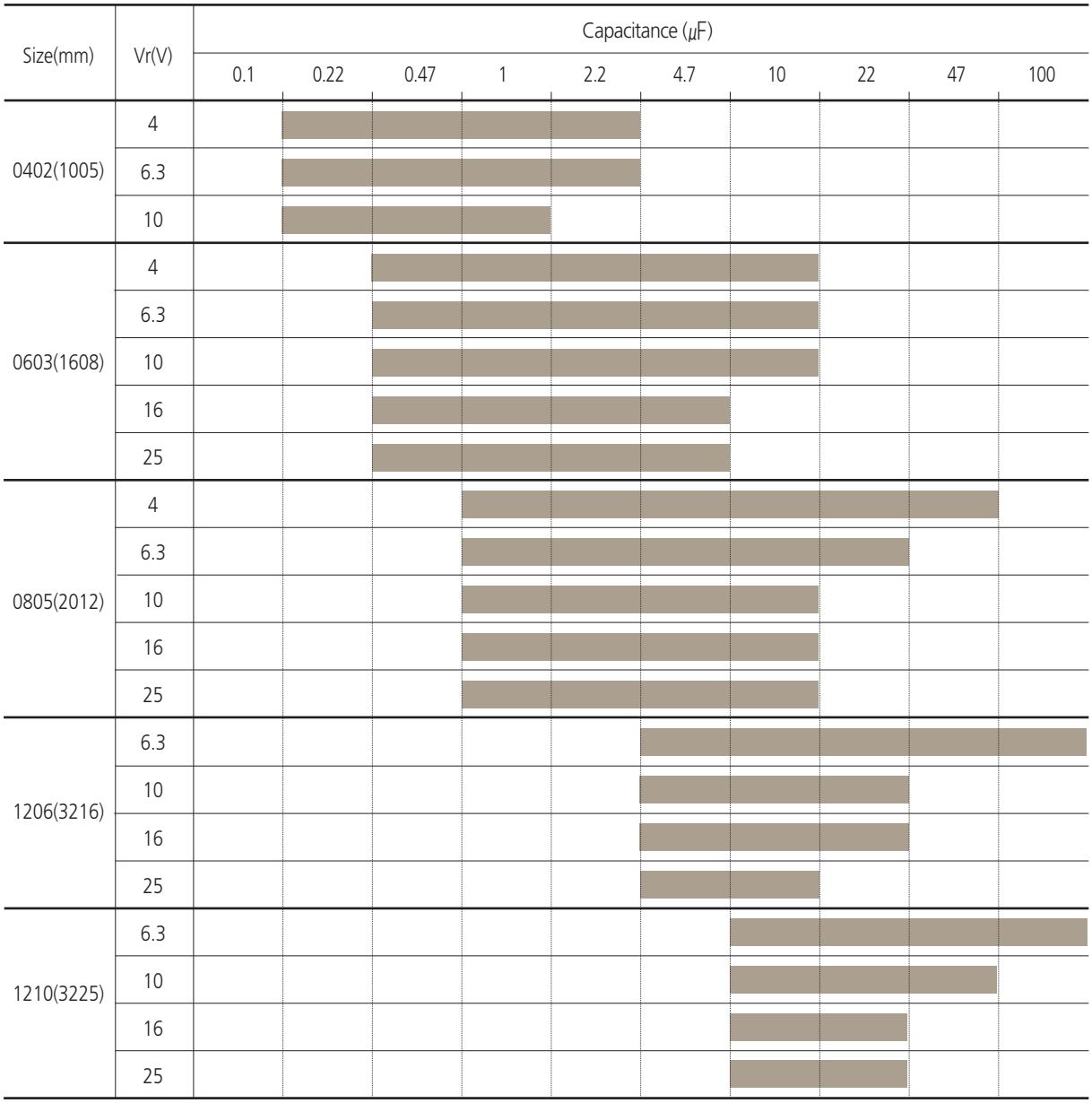
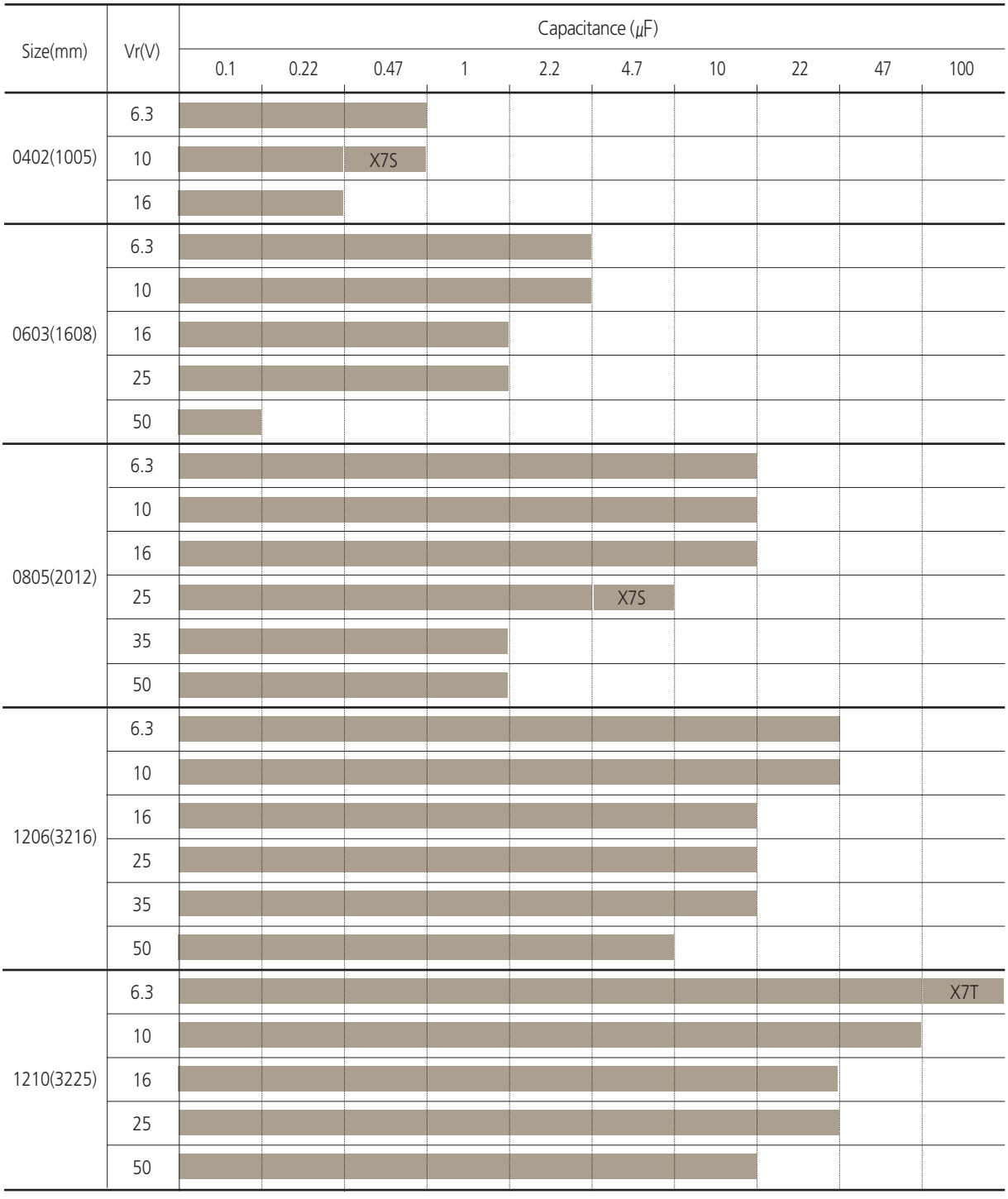
High Capacitance Table (X6S)



High Capacitance Table (X7R)



Part Numbering System
General Capacitors
High Capacitance Capacitors
Super Small Size Capacitors
Medium-High Voltage Capacitors
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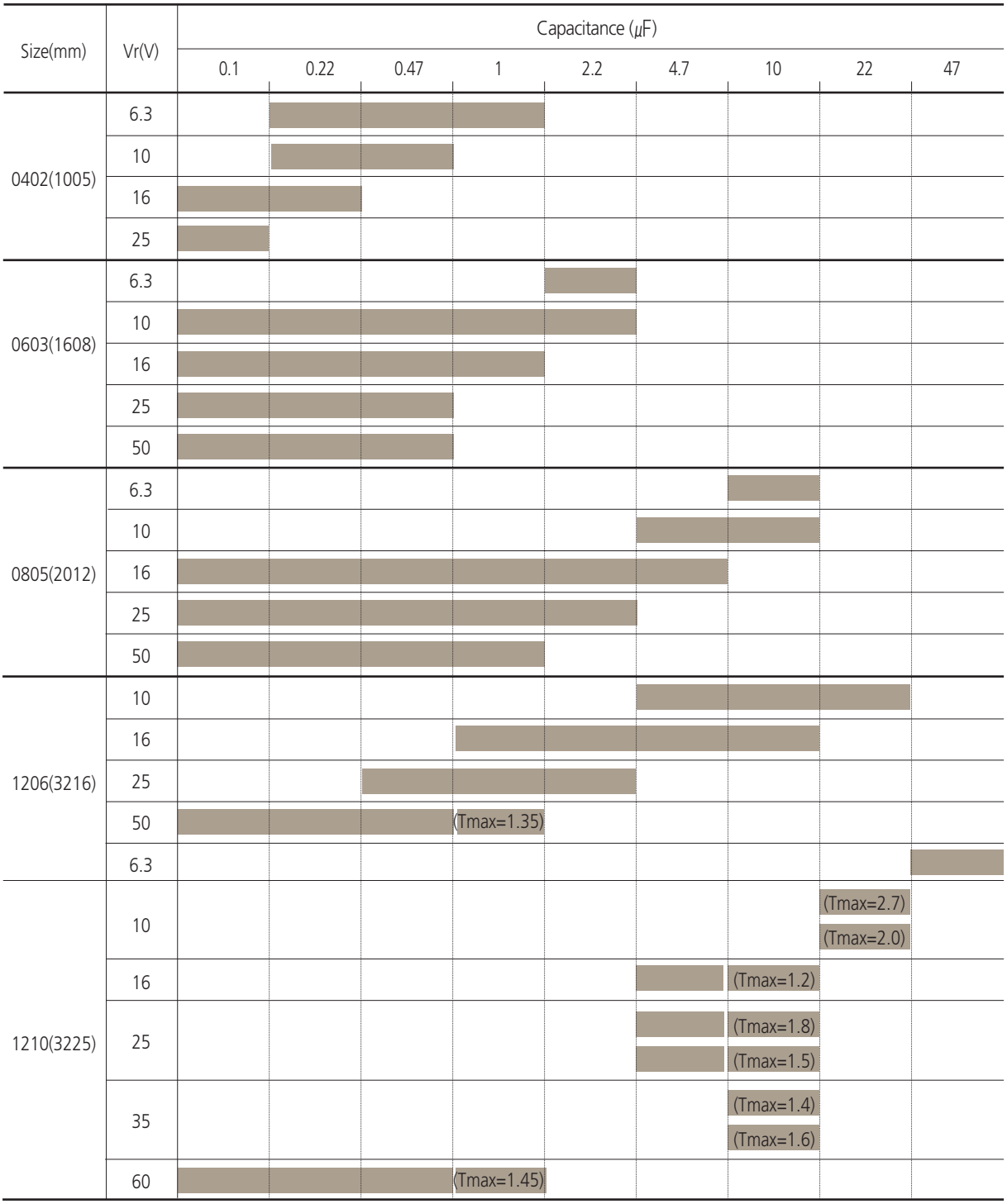
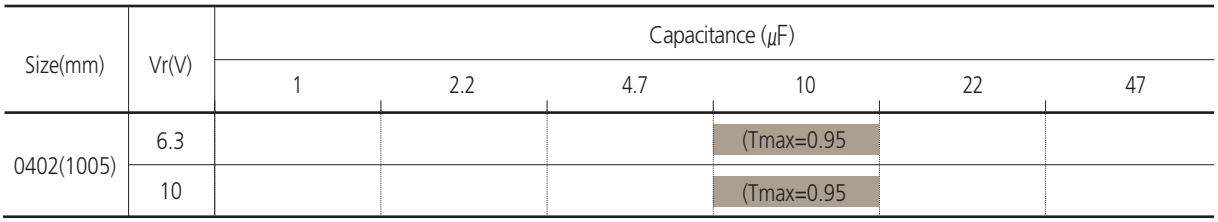
Low ESL Capacitors
Reliability Test Condition
Premium Capacitors for Automotive Applications
Packaging Specification
Application Manual for Surface Mounting

High Capacitance Table (Y5V)



High Capacitance Table -Low Profile (Y5V)



Product Lineup (High Capacitance-X5R)

	Part Number	Size L×W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
1	CL05A224KQ5NNN □	1.00×0.50	0.22μF	6.3	±10%	0.55
2	CL05A224KR5NNN □		0.22μF	4	±10%	0.55
3	CL05A224KA5NNN □		0.22μF	25	±10%	0.55
4	CL05A224KO5NNN □		0.22μF	16	±10%	0.55
5	CL05A224KP5NNN □		0.22μF	10	±10%	0.55
6	CL05A334KA5NNN □		0.33μF	25	±10%	0.55
7	CL05A334KQ5NNN □		0.33μF	6.3	±10%	0.55
8	CL05A334KR5NNN □		0.33μF	4	±10%	0.55
9	CL05A474KA5NNN □		0.47μF	25	±10%	0.55
10	CL05A474KO5NNN □		0.47μF	16	±10%	0.55
11	CL05A474KP5NNN □		0.47μF	10	±10%	0.55
12	CL05A474KQ5NNN □		0.47μF	6.3	±10%	0.55
13	CL05A474KR5NNN □		0.47μF	4	±10%	0.55
14	CL05A105KA5NQN □		1μF	25	±10%	0.60
15	CL05A105KO5NNN □		1μF	16	±10%	0.55
16	CL05A105KO3LQN □		1μF	16	±10%	0.33
17	CL05A105KP5NNN □		1μF	10	±10%	0.55
18	CL05A105KP3LNN □		1μF	10	±10%	0.33
19	CL05A105KQ5NNN □		1μF	6.3	±10%	0.55
20	CL05A105KQ3LNN □		1μF	6.3	±10%	0.33
21	CL05A105KR5NNN □		1μF	4	±10%	0.55
22	CL05A105KR3LNN □		1μF	4	±10%	0.33
23	CL05A225MA5NUN □		2.2μF	25	±20%	0.70
24	CL05A225KO5NQN □		2.2μF	16	±10%	0.60
25	CL05A225MP5NSN □		2.2μF	10	±20%	0.57
26	CL05A225KP3LRN □		2.2μF	10	±10%	0.33
27	CL05A225MQ5NNN □		2.2μF	6.3	±20%	0.55
28	CL05A225KQ3LRN □		2.2μF	6.3	±10%	0.33
29	CL05A225MR5NNN □		2.2μF	4	±20%	0.55
30	CL05A225KR3LRN □		2.2μF	4	±10%	0.33
31	CL05A475MP5NRN □		4.7μF	10	±20%	0.65
32	CL05A475MQ5NRN □		4.7μF	6.3	±20%	0.65
33	CL05A475MR5NRN □		4.7μF	4	±20%	0.65
34	CL05A106MP5NNN □		10μF	10	±20%	0.55
35	CL05A106MQ5NUN □		10μF	6.3	±20%	0.70
36	CL05A106MR5NRN □		10μF	4	±20%	0.65
1	CL10A474KB8NNN □	1.60×0.80	0.47μF	50	±10%	0.90
2	CL10A474KA8NNN □		0.47μF	25	±10%	0.90
3	CL10A474KP8NNN □		0.47μF	10	±10%	0.90
4	CL10A474KQ8NNN □		0.47μF	6.3	±10%	0.90
5	CL10A474KR8NNN □		0.47μF	4	±10%	0.90
6	CL10A105KB8NNN □		1μF	50	±10%	0.90
7	CL10A105KA5LNNC □		1μF	25	±10%	0.50
8	CL10A105KA8NNN □		1μF	25	±10%	0.90
9	CL10A105KO8NNN □		1μF	16	±10%	0.90
10	CL10A105KO5LNN □		1μF	16	±10%	0.50
11	CL10A105KP8NNN □		1μF	10	±10%	0.90
12	CL10A105KP5LNN □		1μF	10	±10%	0.50
13	CL10A105KQ8NNN □		1μF	6.3	±10%	0.90
14	CL10A105KQ5LNN □		1μF	6.3	±10%	0.50

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p80.

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Packaging Specification
Application Manual for Surface Mounting

Product Lineup (High Capacitance-X5R)

	Part Number	Size L × W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
15	CL10A105KR8NNN □	1.60×0.80	1㎌	4	±10%	0.90
16	CL10A105KR5LNN □		1㎌	4	±10%	0.50
17	CL10A225KA8NNN □		2.2㎌	25	±10%	0.90
18	CL10A105KA5LNN □		2.2㎌	25	±10%	0.50
19	CL10A225KO8NNN □		2.2㎌	16	±10%	0.90
20	CL10A225KO5LNN □		2.2㎌	16	±10%	0.50
21	CL10A225KP8NNN □		2.2㎌	10	±10%	0.90
22	CL10A225KP5LNN □		2.2㎌	10	±10%	0.50
23	CL10A225KQ8NNN □		2.2㎌	6.3	±10%	0.90
24	CL10A225KQ5LNN □		2.2㎌	6.3	±10%	0.50
25	CL10A225KR8NNN □		2.2㎌	4	±10%	0.90
26	CL10A225KR5LNN □		2.2㎌	4	±10%	0.50
27	CL10A335KQ8NNN □		3.3㎌	6.3	±10%	0.90
28	CL10A335KR8NNN □		3.3㎌	4	±10%	0.90
29	CL10A475KA8NQN □		4.7㎌	25	±10%	0.95
30	CL10A475KO8NNN □		4.7㎌	16	±10%	0.90
31	CL10A475KP8NNN □		4.7㎌	10	±10%	0.90
32	CL10A475KP5LNN □		4.7㎌	10	±10%	0.50
33	CL10A475KQ5LNN □		4.7㎌	6.3	±10%	0.50
34	CL10A475KQ8NNN □		4.7㎌	6.3	±10%	0.90
35	CL10A475KR5LNN □		4.7㎌	4	±10%	0.50
36	CL10A475KR8NNN □		4.7㎌	4	±10%	0.90
37	CL10A106KR8NNN □		10㎌	4	±10%	0.90
38	CL10A106MR5LRN □		10㎌	4	±20%	0.50
39	CL10A106KQ8NNN □		10㎌	6.3	±10%	0.90
40	CL10A106MQ5LRN □		10㎌	6.3	±20%	0.50
41	CL10A106MP8NNN □		10㎌	10	±20%	0.90
42	CL10A106MO8NQN □		10㎌	16	±20%	0.95
43	CL10A106MA8NRN □		10㎌	25	±20%	1.00
44	CL10A226MR8NRN □		22㎌	4	±20%	1.00
45	CL10A226MQ8NRN □		22㎌	6.3	±20%	1.00
46	CL10A226MP8NUN □		22㎌	10	±20%	1.05
1	CL21A105KBQNNN □	2.00×1.25	1㎌	50	±10%	1.40
2	CL21A105KAFNNN □		1㎌	25	±10%	1.35
3	CL21A105KA6LNN □		1㎌	25	±10%	0.70
4	CL21A105KOFNNN □		1㎌	16	±10%	1.35
5	CL21A105KO6LNN □		1㎌	16	±10%	0.70
6	CL21A105KQFNNN □		1㎌	6.3	±10%	1.35
7	CL21A105KRFNNN □		1㎌	4	±10%	1.35
8	CL21A225KBQNNN □		2.2㎌	50	±10%	1.40
9	CL21A225KAFNNN □		2.2㎌	25	±10%	1.35
10	CL21A225KO6LNN □		2.2㎌	16	±10%	0.70
11	CL21A225KOFNNN □		2.2㎌	16	±10%	1.35
12	CL21A225KPFNNN □		2.2㎌	10	±10%	1.35
13	CL21A225KQFNNN □		2.2㎌	6.3	±10%	1.35
14	CL21A225KRFNNN □		2.2㎌	4	±10%	1.35
15	CL21A475KBQNNN □		4.7㎌	50	±10%	1.40
16	CL21A475KAQNNN □		4.7㎌	25	±10%	1.40
17	CL21A475KACLRN □		4.7㎌	25	±10%	0.95
18	CL21A475KOFNNN □		4.7㎌	16	±10%	1.35

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p 80.

Product Lineup (High Capacitance-X5R)

	Part Number	Size L×W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
19	CL21A475KOCLNN □	2.00×1.25	4.7㎌	16	±10%	0.95
20	CL21A475KPFNNN □		4.7㎌	10	±10%	1.35
21	CL21A475KPCLNN □		4.7㎌	10	±10%	0.95
22	CL21A475KQFNNN □		4.7㎌	6.3	±10%	1.35
23	CL21A475KQCLNN □		4.7㎌	6.3	±10%	0.95
24	CL21A475KRFNNN □		4.7㎌	4	±10%	1.35
25	CL21A106KAYNNN □		10㎌	25	±10%	1.45
26	CL21A106KACLRN □		10㎌	25	±10%	0.95
27	CL21A106KOFNNN □		10㎌	16	±10%	1.35
28	CL21A106KOQNNN □		10㎌	16	±10%	1.40
29	CL21A106KOCLRN □		10㎌	16	±10%	0.95
30	CL21A106KPFNNN □		10㎌	10	±10%	1.35
31	CL21A106KPCLQN □		10㎌	10	±20%	0.95
32	CL21A106KQFNNN □		10㎌	6.3	±10%	1.35
33	CL21A106KQCLNN □		10㎌	6.3	±10%	0.95
34	CL21A475KRCLNN □		4.7㎌	4	±10%	0.95
35	CL21A106KRFNNN □		10㎌	4	±10%	1.35
36	CL21A106KRCLNN □		10㎌	4	±10%	0.95
37	CL21A226MAQNNN □		22㎌	25	±20%	1.40
38	CL21A226MPQNNN □		22㎌	10	±20%	1.40
39	CL21A226MPCLRN □		22㎌	10	±20%	0.95
40	CL21A226MQQNNN □		22㎌	6.3	±20%	1.40
41	CL21A226MQCLRN □		22㎌	6.3	±20%	0.95
42	CL21A226MRQNNN □		22㎌	4	±20%	1.40
43	CL21A226MRCLRN □		22㎌	4	±20%	0.95
44	CL21A336MQELNN □		33㎌	6.3	±20%	1.20
45	CL21A336MQ9LNN □		33㎌	6.3	±20%	1.00
46	CL21A336MRELNN □		33㎌	4	±20%	1.20
47	CL21A336MR9LNN □		33㎌	4	±20%	1.00
48	CL21A476MQYNNN □		47㎌	6.3	±20%	1.45
49	CL21A476MRYNNN □		47㎌	4.0	±20%	1.45
1	CL31A225KC9LNN □	3.20×1.60	2.2㎌	100	±10%	1.00
2	CL31A475KBHNNN □		4.7㎌	50	±10%	1.80
3	CL31A475KB9LNN □		4.7㎌	50	±10%	1.00
4	CL31A475KAHNNN □		4.7㎌	25	±10%	1.80
5	CL31A475KACLNN □		4.7㎌	25	±10%	0.95
6	CL31A475KOHNNN □		4.7㎌	16	±10%	1.80
7	CL31A475KOCLNN □		4.7㎌	16	±10%	0.95
8	CL31A475KPHNNN □		4.7㎌	10	±10%	1.80
9	CL31A475KQHNNN □		4.7㎌	6.3	±10%	1.80
10	CL31A475KRHNNN □		4.7㎌	4	±10%	1.80
11	CL31A106KBHNNN □		10㎌	50	±10%	1.80
12	CL31A106KAHNNN □		10㎌	25	±10%	1.80
13	CL31A106KACLNN □		10㎌	25	±10%	0.95
14	CL31A106KOHNNN □		10㎌	16	±10%	1.80
15	CL31A106KOCLNN □		10㎌	16	±10%	0.95
16	CL31A106KPHNNN □		10㎌	10	±10%	1.80
17	CL31A106KPCLNN □		10㎌	10	±10%	0.95
18	CL31A106KQHNNN □		10㎌	6.3	±10%	1.80
19	CL31A106KRHNNN □		10㎌	4	±10%	1.80
20	CL31A156KQHNNN □		15㎌	6.3	±10%	1.80

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p 80.

Part Numbering System
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Application Manual for Surface Mounting

Product Lineup (High Capacitance-X5R)

	Part Number	Size L × W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
21	CL31A156KRHNNN □	3.20×1.60	15㎌	4	±10%	1.80
22	CL31A226KAHNNN □		22㎌	25	±10%	1.80
23	CL31A226KOHNNN □		22㎌	16	±10%	1.80
24	CL31A226KOCLNN □		22㎌	16	±10%	0.95
25	CL31A226KPHNNN □		22㎌	10	±10%	1.80
26	CL31A226KPCLNN □		22㎌	10	±10%	0.95
27	CL31A226KQHNNN □		22㎌	6.3	±10%	1.80
28	CL31A226KRHNNN □		22㎌	4.0	±10%	1.80
29	CL31A476MQHNNN □		47㎌	6.3	±20%	1.80
30	CL31A476MRHNNN □		47㎌	4.0	±20%	1.80
31	CL31A107MQHNNN □		100㎌	6.3	±20%	1.80
32	CL31A107MRHNNN □		100㎌	4.0	±20%	1.80
1	CL32A106KQCLNN □	3.20×2.50	10㎌	6.3	±10%	0.95
2	CL32A106KRCLNN □		10㎌	4.0	±10%	0.95
3	CL32A106KBULNN □		10㎌	50	±10%	2.00
4	CL32A106KAJNNN □		10㎌	25	±10%	2.70
5	CL32A106KAULNN □		10㎌	25	±10%	2.00
6	CL32A106KOJNNN □		10㎌	16	±10%	2.70
7	CL32A106KPJNNN □		10㎌	10	±10%	2.70
8	CL32A226KAJNNN □		22㎌	25	±10%	2.70
9	CL32A226KOJNNN □		22㎌	16	±10%	2.70
10	CL32A226KOCLNN □		22㎌	16	±10%	0.95
11	CL32A226KPJNNN □		22㎌	10	±10%	2.70
12	CL32A226KQJNNN □		22㎌	6.3	±10%	2.70
13	CL32A226MQCLNN □		22㎌	6.3	±20%	0.95
14	CL32A226KRJNNN □		22㎌	4.0	±10%	2.70
15	CL32A226MRCLNN □		22㎌	4.0	±20%	0.95
16	CL32A476KPJNNN □		47㎌	10	±10%	2.70
17	CL32A476MQJNNN □		47㎌	6.3	±20%	2.70
18	CL32A476MRJNNN □		47㎌	4.0	±20%	2.70
19	CL32A107MPVNNN □		100㎌	10	±20%	2.80
20	CL32A107MQVNNN □		100㎌	6.3	±20%	2.80
21	CL32A107MRVNNN □		100㎌	4.0	±20%	2.80
1	CL43A476MQJNNN □	4.50×3.20	47㎌	6.3	±20%	2.70
2	CL43A476MRJNNN □		47㎌	4.0	±20%	2.70
3	CL43A107KQLNNN □		100㎌	6.3	±20%	3.50
4	CL43A107KRLNNN □		100㎌	4.0	±20%	3.50

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p 80.

Product Lineup (High Capacitance-X6S)

	Part Number	Size L×W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
1	CL05X224KP5NNN □	1.00×0.50	0.22μF	10	±10%	0.55
2	CL05X224KQ5NNN □		0.22μF	6.3	±10%	0.55
3	CL05X224KR5NNN □		0.22μF	4	±10%	0.55
4	CL05X474KP5NNN □		0.47μF	10	±10%	0.55
5	CL05X474KQ5NNN □		0.47μF	6.3	±10%	0.55
6	CL05X474KR5NNN □		0.47μF	4	±10%	0.55
7	CL05X105KP5NNN □		1μF	10	±10%	0.55
8	CL05X105MQ3LNN □		1μF	6.3	±20%	0.33
9	CL05X105KQ5NNN □		1μF	6.3	±10%	0.55
10	CL05X105MR3LNN □		1μF	4	±20%	0.33
11	CL05X105KR5NNN □		1μF	4	±10%	0.55
12	CL05X225MQ5NSN □		2.2μF	6.3	±20%	0.57
13	CL05X225MR5NSN □		2.2μF	4	±20%	0.57
1	CL10X474KA8NNN □	1.60×0.80	0.47μF	25	±10%	0.90
2	CL10X474KO8NNN □		0.47μF	16	±10%	0.90
3	CL10X474KP8NNN □		0.47μF	10	±10%	0.90
4	CL10X474KQ8NNN □		0.47μF	6.3	±10%	0.90
5	CL10X474KR8NNN □		0.47μF	4	±10%	0.90
6	CL10X105KA8NNN □		1μF	25	±10%	0.90
7	CL10X105KO8NNN □		1μF	16	±10%	0.90
8	CL10X105KP8NNN □		1μF	10	±10%	0.90
9	CL10X105KQ8NNN □		1μF	6.3	±10%	0.90
10	CL10X105KR8NNN □		1μF	4	±10%	0.90
11	CL10X225KA8NQN □		2.2μF	25	±10%	0.95
12	CL10X225KO8NNN □		2.2μF	16	±10%	0.90
13	CL10X225KP8NNN □		2.2μF	10	±10%	0.90
14	CL10X225KQ8NNN □		2.2μF	6.3	±10%	0.90
15	CL10X225KR8NNN □		2.2μF	4	±10%	0.90
16	CL10X475KA8NQN □		4.7μF	25	±10%	0.95
17	CL10X475KO8NQN □		4.7μF	16	±10%	0.95
18	CL10X475KP5NNN □		4.7μF	10	±10%	0.90
19	CL10X475KQ8NNN □		4.7μF	6.3	±10%	0.90
20	CL10X475KR8NNN □		4.7μF	4	±10%	0.90
21	CL10X106MP8NNN □		10μF	10	±20%	0.90
22	CL10X106KQ8NNN □		10μF	6.3	±10%	0.90
23	CL10X106KR8NNN □		10μF	4	±10%	0.90
1	CL21X105KAFNNN □	2.00×1.25	1μF	25	±10%	1.35
2	CL21X105KOFNNN □		1μF	16	±10%	1.35
3	CL21X105KPFNNN □		1μF	10	±10%	1.35
4	CL21X105KQFNNN □		1μF	6.3	±10%	1.35
5	CL21X105KRFNNN □		1μF	4	±10%	1.35
6	CL21X225KAFNNN □		2.2μF	25	±10%	1.35
7	CL21X225KOFNNN □		2.2μF	16	±10%	1.35
8	CL21X225KPFNNN □		2.2μF	10	±10%	1.35
9	CL21X225KQFNNN □		2.2μF	6.3	±10%	1.35
10	CL21X225KRFNNN □		2.2μF	4	±10%	1.35
11	CL21X475KAQNNN □		4.7μF	25	±10%	1.40
12	CL21X475KOFNNN □		4.7μF	16	±10%	1.35
13	CL21X475KPFNNN □		4.7μF	10	±10%	1.35
14	CL21X475KQFNNN □		4.7μF	6.3	±10%	1.35

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p 80.

Part Numbering System
General Capacitors
High Capacitance Capacitors
Super Small Size Capacitors
Medium-High Voltage Capacitors
Array Type Capacitors
Low ESL Capacitors
Reliability Test Condition
Premium Capacitors for Automotive Applications
Packaging Specification
Application Manual for Surface Mounting

Product Lineup (High Capacitance -X6S)

	Part Number	Size L × W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
15	CL21X475KRFNNN □	2.00×1.25	4.7μF	4	±10%	1.35
16	CL21X106KACLRN □		10μF	25	±10%	0.95
17	CL21X106KAYNNN □		10μF	25	±10%	1.45
18	CL21X106KOYNNN □		10μF	16	±10%	1.45
19	CL21X106KPCLNN □		10μF	10	±10%	0.95
20	CL21X106KPYNNN □		10μF	10	±10%	1.45
21	CL21X106KQQNNN □		10μF	6.3	±10%	1.40
22	CL21X106KRQNNN □		10μF	4	±10%	1.40
23	CL21X106KRCLNN □		10μF	4	±10%	0.95
24	CL21X226MQQNNN □		22μF	6.3	±20%	1.40
25	CL21X226MRQNNN □		22μF	4	±20%	1.40
26	CL21X476MRYNNN □		47μF	4	±20%	1.45
1	CL31X475KAHNNN □	3.20×1.60	4.7μF	25	±10%	1.80
2	CL31X475KACLNN □		4.7μF	25	±10%	0.95
3	CL31X475KOHNNN □		4.7μF	16	±10%	1.80
4	CL31X475KPHNNN □		4.7μF	10	±10%	1.80
5	CL31X475MQHNNN □		4.7μF	6.3	±20%	1.80
6	CL31X475KRHNNN □		4.7μF	4	±10%	1.80
7	CL31X106KACLNN □		10μF	25	±10%	0.95
8	CL31X106KAHNNN □		10μF	25	±10%	1.80
9	CL31X106KOHNNN □		10μF	16	±10%	1.80
10	CL31X106KPHNNN □		10μF	10	±10%	1.80
11	CL31X106KQHNNN □		10μF	6.3	±10%	1.80
12	CL31X106KRHNNN □		10μF	4	±10%	1.80
13	CL31X226KOHNNN □		22μF	16	±10%	1.80
14	CL31X226KPHNNN □		22μF	10	±10%	1.80
15	CL31X226KQHNNN □		22μF	6.3	±10%	1.80
16	CL31X226KRHNNN □		22μF	4	±10%	1.80
17	CL31X107MQHNNN □		100μF	6.3	±20%	1.80
18	CL31X107MRHNNN □		100μF	4	±20%	1.80
1	CL32X106KAUNNN □	3.20×2.50	10μF	25	±10%	2.00
2	CL32X106KOJNNN □		10μF	16	±10%	2.70
3	CL32X106KPJNNN □		10μF	10	±10%	2.70
4	CL32X106KQJNNN □		10μF	6.3	±10%	2.70
5	CL32X106KRJNNN □		10μF	4	±10%	2.70
6	CL32X226KAJNNN □		22μF	25	±10%	2.70
7	CL32X226KOJNNN □		22μF	16	±10%	2.70
8	CL32X226KPJNNN □		22μF	10	±10%	2.70
9	CL32X226KQJNNN □		22μF	6.3	±10%	2.70
10	CL32X226KRJNNN □		22μF	4	±10%	2.70
11	CL32X476MPJNNN □		47μF	10	±20%	2.70
12	CL32X476KQJNNN □		47μF	6.3	±10%	2.70
13	CL32X476KRJNNN □		47μF	4	±10%	2.70
14	CL32X107MQVNNN □		100μF	6.3	±20%	2.80
15	CL32X107MRVNNN □		100μF	4	±20%	2.80

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p80.

Product Lineup (High Capacitance -X7R, X7S)

	Part Number	Size L×W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
1	CL05B224KO5NNN □	1.00×0.50	0.22μF	16	±10%	0.55
2	CL05B224KP5NNN □		0.22μF	10	±10%	0.55
3	CL05B224KQ5NNN □		0.22μF	6.3	±10%	0.55
4	CL05B474KP5NNN □		0.47μF	10	±10%	0.55
1	CL05Y474KP5NNN □	1.00×0.50	0.47μF	10	±10%	0.55
1	CL10B474KA8NNN □	1.60×0.80	0.47μF	25	±10%	0.90
2	CL10B474KO8NNN □		0.47μF	16	±10%	0.90
3	CL10B474KP8NNN □		0.47μF	10	±10%	0.90
4	CL10B474KQ8NNN □		0.47μF	6.3	±10%	0.90
5	CL10B105KA8NNN □		1μF	25	±10%	0.90
6	CL10B105KO8NNN □		1μF	16	±10%	0.90
7	CL10B105KP8NNN □		1μF	10	±10%	0.90
8	CL10B105KQ8NNN □		1μF	6.3	±10%	0.90
9	CL10B225KP8NNN □		2.2μF	10	±10%	0.90
10	CL10B225KQ8NNN □		2.2μF	6.3	±10%	0.90
1	CL21B105KBFNNN □	2.00×1.25	1μF	50	±10%	1.35
2	CL21B105KLFNNN □		1μF	35	±10%	1.35
3	CL21B105KAFNNN □		1μF	25	±10%	1.35
4	CL21B105KOFNNN □		1μF	16	±10%	1.35
5	CL21B105KPFNNN □		1μF	10	±10%	1.35
6	CL21B105KQFNNN □		1μF	6.3	±10%	1.35
7	CL21B225KAFNNN □		2.2μF	25	±10%	1.35
8	CL21B225KOFNNN □		2.2μF	16	±10%	1.35
9	CL21B225KPFNNN □		2.2μF	10	±10%	1.35
10	CL21B225KQFNNN □		2.2μF	6.3	±10%	1.35
11	CL21B475KOFNFN □		4.7μF	16	±10%	1.35
12	CL21B475KPFNNN □		4.7μF	10	±10%	1.35
13	CL21B475KQQNNN □		4.7μF	6.3	±10%	1.40
14	CL21B106KOQNNN □		10μF	16	±10%	1.40
15	CL21B106KPQNNN □		10μF	10	±10%	1.40
16	CL21B106KQQNNN □		10μF	6.3	±10%	1.40
1	CL31B475KBHNNN □	3.20×1.60	4.7μF	50	±10%	1.80
2	CL31B475KLHNNN □		4.7μF	35	±10%	1.80
3	CL31B475KAHNNN □		4.7μF	25	±10%	1.80
4	CL31B475KOHNNN □		4.7μF	16	±10%	1.80
5	CL31B475KPHNNN □		4.7μF	10	±10%	1.80
6	CL31B475KQHNNN □		4.7μF	6.3	±10%	1.80
7	CL31B106KLHNNN □		10μF	35	±10%	1.80
8	CL31B106KAHNNN □		10μF	25	±10%	1.80
9	CL31B106KOHNNN □		10μF	16	±10%	1.80
10	CL31B106KPHNNN □		10μF	10	±10%	1.80
11	CL31B106KQHNNN □		10μF	6.3	±10%	1.80
12	CL31B226KPHNNN □		22μF	10	±10%	1.80
1	CL32B106KBJNNN □	3.20×2.50	10μF	50	±10%	2.70
2	CL32B106KAJNNN □		10μF	25	±10%	2.70
3	CL32B106KOJNNN □		10μF	16	±10%	2.70
4	CL32B106KPINNN □		10μF	10	±10%	2.20
5	CL32B106KQJNNN □		10μF	6.3	±10%	2.70
6	CL32B226KAJNNN □		22μF	25	±10%	2.70
7	CL32B226KOJNNN □		22μF	16	±10%	2.70
8	CL32B226KPJNNN □		22μF	10	±10%	2.70
9	CL32B226KQJNNN □		22μF	6.3	±10%	2.70
10	CL32B476MQJNNN □		47μF	6.3	±20%	2.70

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p80.

Part Numbering System
General Capacitors
High Capacitance Capacitors
Super Small Size Capacitors
Medium-High Voltage Capacitors
Array Type Capacitors
Low ESL Capacitors
Reliability Test Condition
Premium Capacitors for Automotive Applications
Packaging Specification
Application Manual for Surface Mounting

Product Lineup (High Capacitance -Y5V)

	Part Number	Size L × W (mm)	Capacitance	Rated Voltage (Vdc)	Capacitance Tolerance	Thickness Max. (mm)
1	CL05F224ZO5NNN □	1.00×0.50	0.22μF	16	+80/-20%	0.55
2	CL05F224ZP5NNN □		0.22μF	10	+80/-20%	0.55
3	CL05F224ZQ5NNN □		0.22μF	6.3	+80/-20%	0.55
4	CL05F474ZP5NNN □		0.47μF	10	+80/-20%	0.55
5	CL05F474ZQ5NNN □		0.47μF	6.3	+80/-20%	0.55
6	CL05F105ZQ5NNN □		1μF	6.3	+80/-20%	0.55
1	CL10F474ZB8NNN □	1.60×0.80	0.47μF	50	+80/-20%	0.90
2	CL10F474ZA8NNN □		0.47μF	25	+80/-20%	0.90
3	CL10F474ZO8NNN □		0.47μF	16	+80/-20%	0.90
4	CL10F474ZP8NNN □		0.47μF	10	+80/-20%	0.90
5	CL10F105ZO8NNN □		1μF	16	+80/-20%	0.90
6	CL10F105ZP8NNN □		1μF	10	+80/-20%	0.90
7	CL10F225ZP8NNN □		2.2μF	10	+80/-20%	0.90
8	CL10F225ZQ8NNN □		2.2μF	6.3	+80/-20%	0.90
9	CL10F475ZQ8NNN □		4.7μF	6.3	+80/-20%	0.90
1	CL21F105ZBFNNN □	2.00×1.25	1μF	50	+80/-20%	1.35
2	CL21F105ZAFNNN □		1μF	25	+80/-20%	1.35
3	CL21F105ZOFNNN □		1μF	16	+80/-20%	1.35
4	CL21F225ZAFNNN □		2.2μF	25	+80/-20%	1.35
5	CL21F225ZOFNNN □		2.2μF	16	+80/-20%	1.35
6	CL21F475ZQFNNN □		4.7μF	6.3	+80/-20%	1.35
1	CL21F475ZOFNNN □		4.7μF	16	+80/-20%	1.35
2	CL21F475ZPFNNN □		4.7μF	10	+80/-20%	1.35
3	CL21F106ZPFNNN □		10μF	10	+80/-20%	1.35
4	CL21F106ZPCLNN □		10μF	10	+80/-20%	0.95
5	CL21F106ZQFNNN □		10μF	6.3	+80/-20%	1.35
6	CL21F106ZQCLNN □		10μF	6.3	+80/-20%	0.95
1	CL31F475ZOHNNN □	3.20×1.60	4.7μF	16	+80/-20%	1.80
2	CL31F475ZPHNNN □		4.7μF	10	+80/-20%	1.80
3	CL31F475ZQHNNN □		4.7μF	6.3	+80/-20%	1.80
4	CL31F106ZOHNNN □		10μF	16	+80/-20%	1.80
5	CL31F106ZPHNNN □		10μF	10	+80/-20%	1.80
6	CL31F106ZQHNNN □		10μF	6.3	+80/-20%	1.80
7	CL31F226ZPHNNN □		22μF	10	+80/-20%	1.80
8	CL31F226ZQHNNN □		22μF	6.3	+80/-20%	1.80
1	CL32F106ZAHLNN □	3.20×2.50	10μF	25	+80/-20%	1.80
2	CL32F106ZOELNN □		10μF	16	+80/-20%	2.00
3	CL32F226ZPJNNN □		22μF	10	+80/-20%	2.70
4	CL32F226ZPULNN □		22μF	10	+80/-20%	2.00
5	CL32F476ZQJNNN □		47μF	6.3	+80/-20%	2.70
6	CL32F107ZQJNNN □		100μF	6.3	+80/-20%	2.70

※ □mark means packaging code. If you want to learn the code or quantity in detail, please see p80.