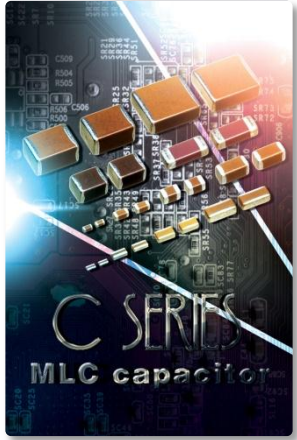
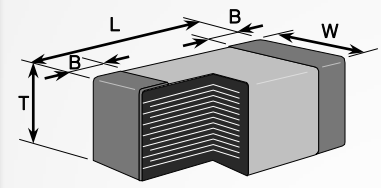


C SERIES | General Application



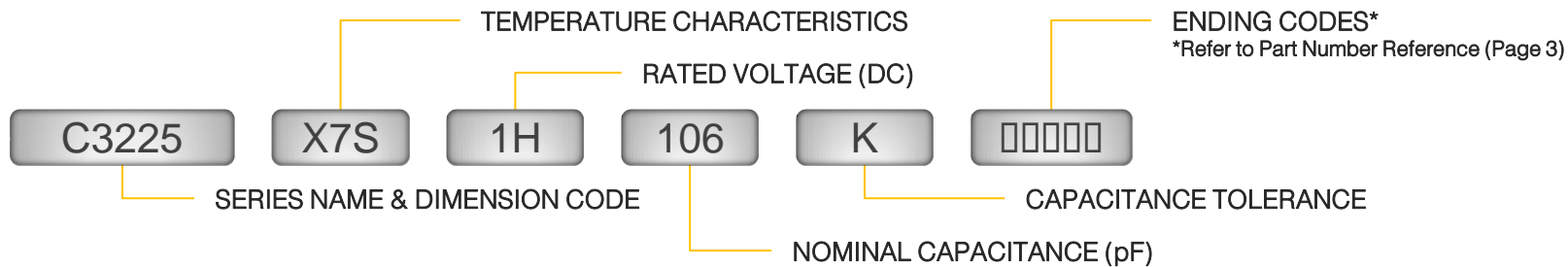
TDK C series offers high capacitance MLCC achieved through precision technologies by enabling the use of multiple thinner ceramic dielectric layers. TDK advanced manufacturing process offers MLCC with monolithic structure and superior mechanical strength as well as a high level of reliability. Composed of only ceramics and base metals, these capacitors provide extremely dependable performance, exhibiting virtually no degradation even when subjected to temperature extremes. Low stray capacitance ensures high conformity with nominal values, thereby simplifying the circuit design process. Owing to their low ESR and excellent frequency characteristics, these products are optimally suited for a variety of application.



Case Code	L (mm)	W (mm)	T (mm)
C0402/01005	0.40	0.20	0.20
C0603/0201	0.60	0.30	0.30
C1005/0402	1.00	0.50	0.50
C1608/0603	1.60	0.80	0.80
C2012/0805	2.00	1.25	1.25
C3216/1206	3.20	1.60	1.60
C3225/1210	3.20	2.50	2.50
C4532/1810	4.50	3.20	3.20
C5750/2220	5.70	5.00	2.80

L Body Length
 W Body Width
 T Body Height
 B Terminal Width

Part Number Description



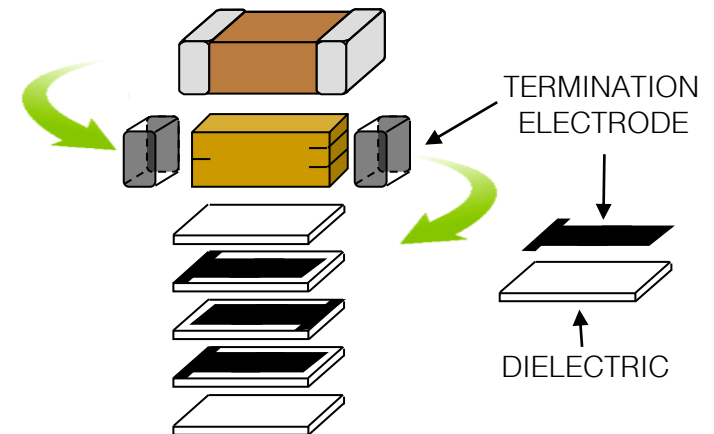
Features:

- ❖ TDK's proprietary internal electrode structure
- ❖ Wide capacitance range up to 100 μ F
- ❖ Available voltage rating of 4V to 50V
- ❖ Superior mechanical strength and reliability
- ❖ Low ESR characteristic
- ❖ Easy mounting due to no polarity

Applications:

- ❖ General electronic equipment
- ❖ Mobile communication equipment
- ❖ Power supply circuit
- ❖ Office automation equipment
- ❖ TV/LED displays
- ❖ Servers/PCs/Notebooks/Tablets
- ❖ Test and measurement equipment
- ❖ Hybrid ICs, etc.
- ❖ Decoupling
- ❖ Smoothing
- ❖ Charge pump

Basic Design Construction Multi-layer Capacitor



C SERIES | General Application / C0G, SL

Capacitance (pF)	Cap Code	C0402 01005		C0603 0201		C1005 0402		C1608 0603	
		1C (16V)	1H (50V)	1E (25V)	1H (50V)	1H (50V)			
0.2	0R2	COG		COG					
0.3	0R3	COG		COG					
0.4	0R4	COG		COG					
0.5	0R5	COG	COG	COG	COG	COG			
0.6	0R6	COG	COG	COG	COG	COG			
0.7	0R7	COG		COG					
0.75	R75	COG		COG		COG	COG		
0.8	0R8	COG		COG					
0.9	0R9	COG		COG					
1.0	0I0	COG	COG	COG	COG	COG			
1.1	1R1	COG	COG	COG	COG	COG			
1.2	1R2	COG	COG	COG	COG	COG			
1.3	1R3	COG	COG	COG	COG	COG			
1.5	1R5	COG	COG	COG	COG	COG			
1.6	1R6	COG	COG	COG	COG	COG			
1.8	1R8	COG	COG	COG	COG	COG			
2.0	020	COG	COG	COG	COG	COG			
2.2	2R2	COG	COG	COG	COG	COG			
2.4	2R4	COG	COG	COG	COG	COG			
2.5	2R5	COG	COG	COG	COG	COG			
2.7	2R7	COG	COG	COG	COG	COG			
3.0	030	COG	COG	COG	COG	COG			
3.3	3R3	COG	COG	COG	COG	COG			
3.5	3R5	COG	COG	COG	COG	COG			
3.6	3R6	COG	COG	COG	COG	COG			
3.9	3R9	COG	COG	COG	COG	COG			
4.0	040	COG	COG	COG	COG	COG			
4.3	4R3	COG	COG	COG	COG	COG			
4.7	4R7	COG	COG	COG	COG	COG			
5.0	050	COG	COG	COG	COG	COG			
5.1	5R1	COG	COG	COG	COG	COG			
5.6	5R6	COG	COG	COG	COG	COG			
6.0	060	COG	COG	COG	COG	COG			
6.2	6R2	COG	COG	COG	COG	COG			
6.8	6R8	COG	COG	COG	COG	COG			
7.0	070	COG	COG	COG	COG	COG			
7.5	7R5	COG	COG	COG	COG	COG			
8.0	080	COG	COG	COG	COG	COG			
8.2	8R2	COG	COG	COG	COG	COG			
9.0	090	COG	COG	COG	COG	COG			
9.1	9R1	COG	COG	COG	COG	COG			
10	100	COG	COG	COG	COG	COG			
11	110	COG	COG	COG	COG	COG			
12	120	COG	COG	COG	COG	COG			
13	130	COG	COG	COG	COG	COG			
15	150	COG	COG	COG	COG	COG			
16	160	COG	COG	COG	COG	COG			
18	180	COG	COG	COG	COG	COG			
20	200	COG	COG	COG	COG	COG			

Capacitance (pF)	Cap Code	C0402 01005		C0603 0201		C1005 0402			C1608 0603		C2012 0805		C3216 1206
		1C (16V)	1H (50V)	1E (25V)	1H (50V)	1E (25V)	1A (10V)	1H (50V)	1E (25V)	1H (50V)	1E (25V)	1H (50V)	
22	220	COG	COG	COG	COG			COG					
24	240	COG	COG	COG	COG			COG					
27	270	COG	COG	COG	COG			COG					
30	330	COG	COG	COG	COG			COG					
33	330	COG	COG	COG	COG			COG					
36	360	COG	COG	COG	COG			COG					
39	390	COG	COG	COG	COG			COG					
43	430	COG	COG	COG	COG			COG					
47	470	COG	COG	COG	COG			COG					
51	510	COG	COG	COG	COG			COG					
56	560	COG	COG	COG	COG			COG					
62	620	COG	COG	COG	COG			COG					
68	680	COG	COG	COG	COG			COG					
75	750	COG	COG	COG	COG			COG					
82	820	COG	COG	COG	COG			COG					
91	910	COG	COG	COG	COG			COG					
100	101	COG	COG	COG	COG			COG			COG		
110	111	COG	COG	COG	COG			COG			COG		
120	121	COG	COG	COG	COG			COG			COG		
130	131	COG	COG	COG	COG			COG			COG		
150	151	COG	COG	COG	COG			COG			COG		
160	161	COG	COG	COG	COG			COG			COG		
180	181	COG	COG	COG	COG			COG			COG		
200	201	COG	COG	COG	COG			COG			COG		
220	221	COG	COG	COG	COG			COG			COG		
240	24	COG	COG	COG	COG			COG			COG		
270	271	COG	COG	COG	COG			COG			COG		
300	301	COG	COG	COG	COG			COG			COG		
330	331	COG	COG	COG	COG			COG			COG		
360	361	COG	COG	COG	COG			COG			COG		
390	391	COG	COG	COG	COG			COG			COG		
430	431	COG	COG	COG	COG			COG			COG		
470	471	COG	COG	COG	COG			COG			COG		
510	511	COG	COG	COG	COG			COG			COG		
560	561	COG	COG	COG	COG			COG			COG		
620	621	COG	COG	COG	COG			COG			COG		
680	681	COG	COG	COG	COG			COG			COG		
750	751	COG	COG	COG	COG			COG			COG		
820	821	COG	COG	COG	COG			COG			COG		
910	911	COG	COG	COG	COG			COG			COG		
1,000	102	COG	COG	COG	COG			COG			COG		
1,200	122	COG	COG	COG	COG			COG			COG		
1,500	152	COG	COG	COG	COG			COG			COG		
1,800	182	COG	COG	COG	COG			COG			COG		
2,200	222	COG	COG	COG	COG			COG			COG		
2,700	272	COG	COG	COG	COG			COG			COG		
3,300	332	COG	COG	COG	COG			COG			COG		
3,900	392	COG	COG	COG	COG			COG			COG		
4,700	472	COG	COG	COG	COG			COG			COG		

COG SL

C SERIES | General Application / C0G, SL, X5R

Capacitance (pF)	Cap Code	C1608 0603			C2012 0805			C3216 1206			C3225 1210	C4532 1812
		1H (50V)	1E (25V)	1A (10V)	1H (50V)	1E (25V)	1A (10V)	1H (50V)	1E (25V)	1A (10V)	1H (50V)	1H (50V)
5,600	562											
6,800	682											
8,200	822											
10,000	103											
15,000	153											
22,000	223											
33,000	333											
47,000	473											
68,000	683											
100,000	104											
150,000	154											
220,000	224											

Capacitance (pF)	Cap Code	C1005/0402 1H (50V)		C1608/0603			
		F ±1%	G ±2%	1H (50V)		2A (100V)	
		F ±1%	G ±2%	F ±1%	G ±2%	F ±1%	G ±2%
15	150						
22	220						
33	330						
47	470						
68	680						
100	101						
150	151						
220	221						
330	331						
470	471						
680	681						
1,000	102						

Capacitance (pF)	Cap Code	C0402 01005				C0603 0201				C1005 0402								
		1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)
100	101																	
150	151																	
220	221																	
330	331																	
470	471																	
1,000	102																	
1,500	152																	
2,200	222																	
3,300	332																	
4,700	472																	
6,800	682																	
10,000	103																	
15,000	153																	
22,000	223																	
33,000	333																	
47,000	473																	
68,000	683																	
100,000	104																	
150,000	154																	
220,000	224																	
330,000	334																	
470,000	474																	
680,000	684																	
1,000,000	105																	
1,500,000	155																	
2,200,000	225																	
3,300,000	335																	
4,700,000	475																	

C0G SL X5R

C SERIES | General Application / X5R

Capacitance (pF)	Cap Code	C1608 0603							C2012 0805						C3216 1206							
		1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	
100,000	104	█		█																		
150,000	154																					
220,000	224	█		█	█	█																
330,000	334																					
470,000	474																					
680,000	684	█		█																		
1,000,000	105	█	█	█	█	█			█	█	█	█			█							
1,500,000	155																					
2,200,000	225		█	█	█	█			█	█	█	█										
3,300,000	335																					
4,700,000	475				█	█			█	█	█	█			█			█	█	█		
6,800,000	685																					
10,000,000	106					█	█			█	█	█			█			█	█	█		
15,000,000	156																					
22,000,000	226					█	█					█				█			█	█	█	
33,000,000	336																					
47,000,000	476														█			█	█	█	█	
100,000,000	107																					█

Capacitance (pF)	Cap Code	C3225 1210					C4532 1812				C5750 2220				
		1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
4,700,000	475	█													
10,000,000	106						█			█					
15,000,000	156			█	█		█								
22,000,000	226			█	█	█	█	█			█				
33,000,000	336				█	█						█			
47,000,000	476								█			█			
68,000,000	686												█	█	
100,000,000	107							█	█					█	█

Capacitance (pF)	Cap Code	C0603 0201		C1005 0402						C1608 0603							
		0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)
10,000	103			█													
22,000	223																
47,000	473			█													
100,000	104	█	█	█	█	█											
220,000	224	█	█			█					█	█					
470,000	474						█	█					█				
1,000,000	105								█		█	█		█			
2,200,000	225												█	█	█	█	
4,700,000	475														█	█	█
10,000,000	106																█

█ X5R █ X6S

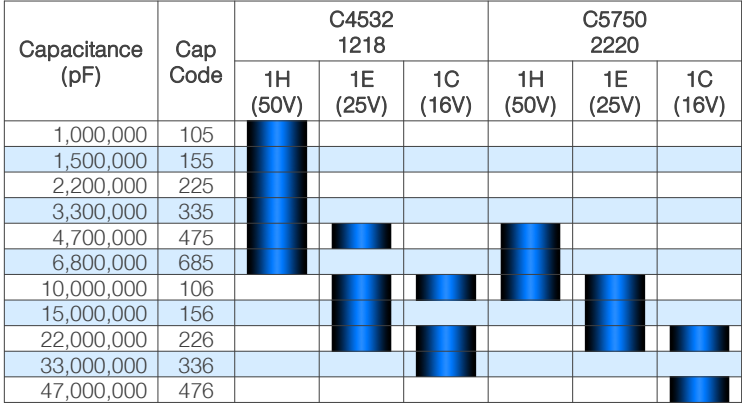
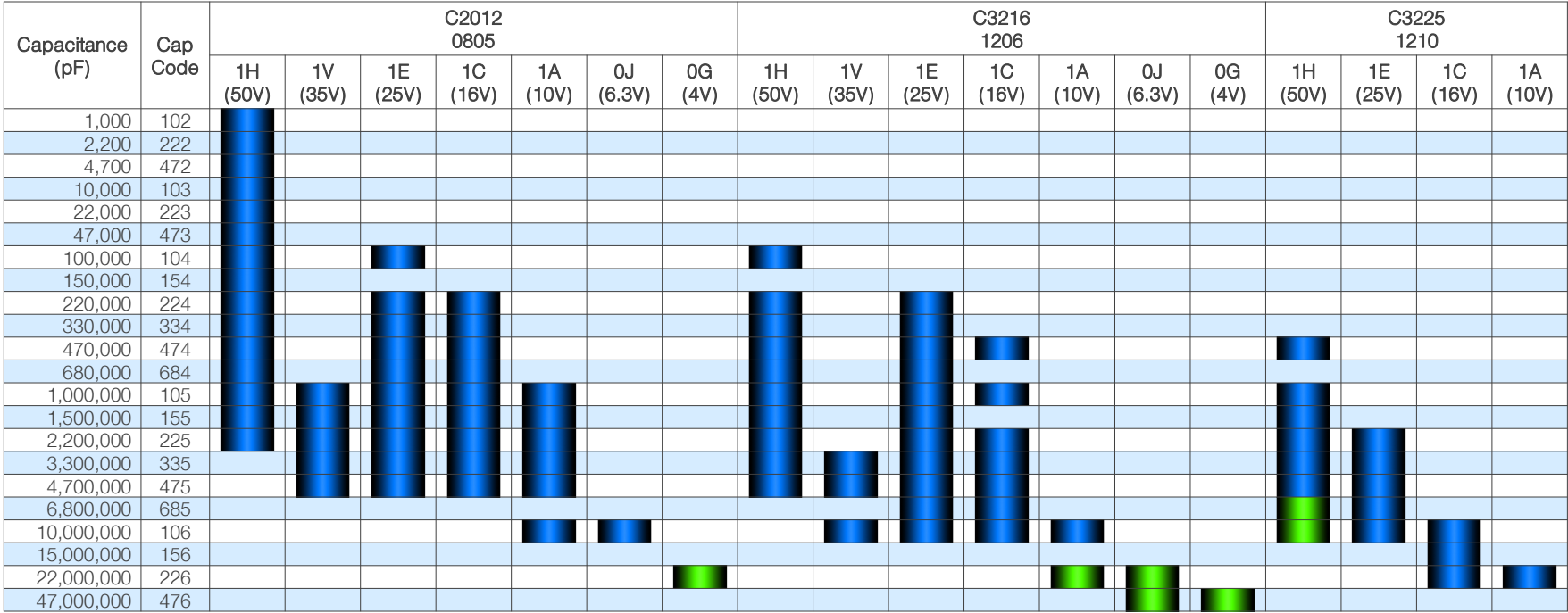
C SERIES | General Application / X6S, X7R, X7S

Capacitance (pF)	Cap Code	C2012 0805							C3216 1206							C3225 1210		
		1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	0J (6.3V)	0G (4V)
100,000	104	X6S																
220,000	224	X6S			X6S	X6S												
470,000	474	X6S	X6S	X6S	X6S				X6S									
1,000,000	105				X6S	X6S			X6S	X6S	X6S							
2,200,000	225					X6S					X6S							
4,700,000	475							X6S				X6S	X6S					
10,000,000	106													X6S		X6S	X6S	X6S

Capacitance (pF)	Cap Code	C0402 01005	C0603 0201				C1005 0402						C1608 0603									
		1A (10V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)	
100	101	X7R	X7R	X7R	X7R									X7R								
150	151	X7R	X7R	X7R	X7R																	
220	221							X7R														
330	331		X7R																			
470	471	X7R																				
680	681	X7R																				
1,000	102			X7R	X7R			X7R		X7R	X7R				X7R							
1,500	152																					
2,200	222																					
3,300	332			X7R	X7R																	
4,700	472				X7R			X7R		X7R	X7R											
6,800	682					X7R																
10,000	103						X7R	X7R		X7R	X7R				X7R			X7R	X7R			
15,000	153																					
22,000	223																					
33,000	333																					
47,000	473																					
68,000	683																					
100,000	104							X7R	X7R	X7R	X7R				X7R			X7R	X7R			
150,000	154																					
220,000	224																					
330,000	334																					
470,000	474													X7S	X7S							
680,000	684																					
1,000,000	105														X7S	X7S	X7S	X7S	X7S	X7S	X7S	X7S
2,200,000	225																				X7S	X7S
4,700,000	475																				X7S	X7S

X6S X7R X7S

C SERIES | General Application / X7R, X7S



█ X7R █ X7S