Feature



- Wide selection of size : from 0402(Inch) to 2220(Inch)
- 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

- Mobile Phone

- PC (Laptop, Desktop)

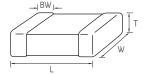
- DC - DC Converter

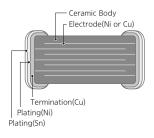
- HDD/SSD board

- Tablet devices

- Display

Structure and Dimensions



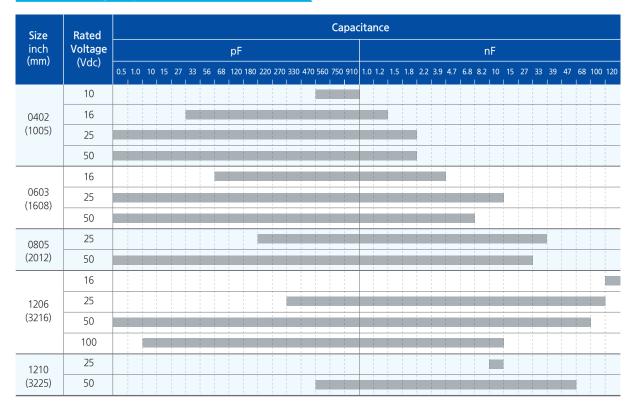


Size	EIA			Dimension(mm)		
Code	Code	L	W	Т	Thickness Code	BW
		1.00±0.05	0.50±0.05	0.0975±0.0125(*)	L	0.25±0.075
05	0402	1.00±0.10	0.50±0.05	0.19±0.03(*)	Χ	
05	0402	1.00±0.05	0.50±0.05	0.30±0.03(*)	3	0.25±0.10
		1.00±0.05	0.50±0.05	0.50±0.05	5	
10	0603	1.60±0.10	0.80±0.10	0.50+0.0/-0.1(*)	5	0.30±0.20
	0003	1.60±0.10	0.80±0.10	0.80 ± 0.10	8	0.30±0.20
		2.00±0.10	1.25±0.10	0.70±0.10(*)	7	
		2.00±0.10	1.25±0.10	0.80±0.10(*)	8	
		2.00±0.10	1.25±0.10	0.85±0.10	C	
21	0805	2.00 ± 0.10	1.25±0.10	$0.90\pm0.10(*)$	9	0.50+0.20/-0.30
21		2.00 ± 0.10	1.25±0.10	1.15±0.10	М	0.50+0.20/-0.50
		2.00 ± 0.10	1.25±0.10	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	Υ	
		3.20±0.20	1.60±0.20	0.60±0.10(*)	6	
		3.20±0.15	1.60±0.15	0.85±0.15	C	
		3.20±0.20	1.60±0.20	0.85±0.10(*)	C	
		3.20±0.20	1.60±0.20	0.90±0.10(*)	9	
31	1206	3.20±0.20	1.60±0.20	1.10±0.10(*)	Е	0.50±0.30
		3.20±0.20	1.60±0.20	1.15±0.10(*)	М	
		3.20±0.20	1.60±0.20	1.15±0.10(*)	Р	
		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	Н	
		3.20±0.30	2.50±0.20	0.85±0.10(*)	C	
		3.20±0.30	2.50±0.20	0.90±0.10(*)	9	
		3.20±0.30	2.50±0.20	1.60±0.20	Н	
32	1210	3.20±0.30	2.50±0.20	1.80±0.20(*)	U	0.60±0.30
		3.20±0.30	2.50±0.20	2.00±0.20	I	
		3.20±0.30	2.50±0.20	2.50±0.20	J	
		3.20±0.40	2.50±0.30	2.50±0.30	V	
		4.50±0.40	2.00±0.20	1.25±0.20	F	
42	1808	4.50±0.40	2.00±0.20	1.40±0.20	G	0.80 ± 0.30
		4.50±0.40	2.00±0.20	2.00±0.20		
		4.50±0.40	3.20±0.30	1.25±0.20	F	
43	1812	4.50±0.40	3.20±0.30	2.50±0.20	J	0.80 ± 0.30
		4.50±0.40	3.20±0.30	3.20±0.30	L	
	2220	5.70±0.40	5.00±0.40	2.50±0.20	J	1.00 0.30
55	2220	5.70±0.40	5.00±0.40	3.20±0.30	L	1.00±0.30
* Mark is onl	v applicable t	o "L"."F". 12 th code	in part number			

^{*} Mark is only applicable to "L", "F", $\,$ 12th code in part number.



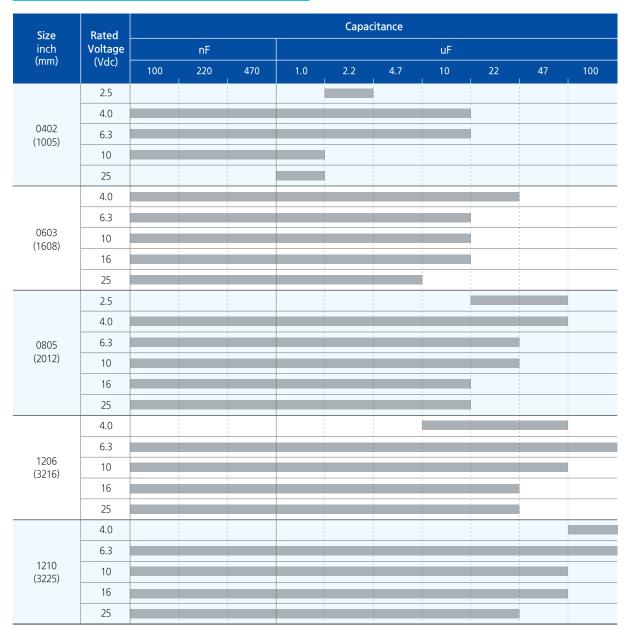
Standard & High Capacitance Table (COG)



Standard & High Capacitance Table (X5R)

Size inch (mm)	Rated Voltage	Capacitance										
(mm)	/v / I / I		nF					u	F			
	(Vdc)	100	220	470	1.0	2.2	4.7	10	22	47	100	220
	4.0				1							
	6.3				1							
0402	10				1					1		
(1005)	16									 		
	25				ı					 		
	35		1									
	4.0				1					1		
	6.3				1					1		
	10											
0603 (1608)	16											
(1000)	25									1	1	
	35				1					 		
	50				I					1		
	4.0									1		
	6.3											
	10				I							
0805 (2012)	16										1	
(2012)	25				1							
	35		1		 						 	
	50									<u> </u> 	I I I I	
	6.3									1	150	
	10				1					1	1	
1206	16				1						 	
(3216)	25		1		 						1 1 1 1	
	35				1						1	
	50				1					1 1 1 1		
	6.3									1 1 1	1 1 1	
	10				1					 		
1210	16		1		 					1		
1210 (3225)	25											
	35									1		
	50									1		
1812(4532)	6.3				1						1	
	6.3				i 							
2220(5750)	10		1		 							

Standard & High Capacitance Table (X6S)



Standard & High Capacitance Table (X7R)

a:							Ca	pacitan	ice					
Size inch (mm)	Rated Voltage			nF						ι	ıF			
(mm)	(Vdc)	47	100	220	330	470	1.0	2.2	3.3	4.7	10	22	47	100
	6.3			1	1	1	X7S							
	10			1	1	1								
0402 (1005)	16													
(1003)	25				1 1 1	1 1 1								
	50			 	 	 								
	6.3			1	1	 					X7S			
	10			1	1 1 1	1 1 1				1				
0603 (1608)	16			1	1	1								
(/	25			1	1	1								
	50			1	1									
	6.3				1	1								
	10			1	1	 				1				
0805	16			1	1	1	1		1					
(2012)	25			1	1	1								
	35													
	50			1	1	1 1 1				1				
	6.3				1	1								
	10			1	1	1								
1206	16			1	1	1								
(3216)	25													
	35				1	1								
	50			1	1	1								
	6.3			1 1 1	1 1 1	1 1 1				1				X7T
	10			1 1 1 1	1 1 1 1	1 1 1 1	1		1	1				
1210	16			1	 	 			1	1				
(3225)	25			1	1	 				1				
	35			 	 	 								
	50			 	 	 			1	1				

Product Line Up (COG)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number				
0.55mm	10Vdc	560pF	±5%	CL05C561JP5NNN□	0.55mm	50Vdc	2.2pF	±0.1pF	CL05C2R2BB5NNN□				
	16Vdc	33pF	±5%	CL05C330J05NNN□			2.2pF	±0.25pF	CL05C2R2CB5NNN□				
		100pF	±5%	CL05C101J05NNN□			2.4pF	±0.1pF	CL05C2R4BB5NNN□				
		150pF	±5%	CL05C151J05NNN□			2.4pF	±0.25pF	CL05C2R4CB5NNN□				
		220pF	±5%	CL05C221J05NNN□			2.5pF	±0.1pF	CL05C2R5BB5NNN□				
		470pF	±5%	CL05C471J05NNN□			2.5pF	±0.25pF	CL05C2R5CB5NNN□				
		1.0nF	±5%	CL05C102J05NNN□			2.7pF	±0.1pF	CL05C2R7BB5NNN□				
	25Vdc	10pF	±0.5pF	CL05C100DA5NNN□			2.7pF	±0.25pF	CL05C2R7CB5NNN□				
		10pF	±5%	CL05C100JA5NNN□			3.0pF	±0.1pF	CL05C030BB5NNN□				
		11pF	±5%	CL05C110JA5NNN□			3.0pF	±0.25pF	CL05C030CB5NNN□				
		12pF	±5%	CL05C120JA5NNN□			3.3pF	±0.1pF	CL05C3R3BB5NNN□				
		13pF	±5%	CL05C130JA5NNN□			3.3pF	±0.25pF	CL05C3R3CB5NNN□				
		15pF	±5%	CL05C150JA5NNN□			3.5pF	±0.25pF	CL05C3R5CB5NNN□				
		18pF	±2%	CL05C180GA5NNN□			3.6pF	±0.25pF	CL05C3R6CB5NNN□				
		20pF	±5%	CL05C200JA5NNN□			3.9pF	±0.1pF	CL05C3R9BB5NNN□				
		22pF	±5%	CL05C220JA5NNN□			3.9pF	±0.25pF	CL05C3R9CB5NNN□				
		27pF	±2%	CL05C270GA5NNN□			4.0pF	±0.1pF	CL05C040BB5NNN□				
		27pF	±5%	CL05C270JA5NNN□			4.0pF	±0.25pF	CL05C040CB5NNN□				
		33pF	±5%	CL05C330JA5NNN□			4.3pF	±0.25pF	CL05C4R3CB5NNN□				
		39pF	±5%	CL05C390JA5NNN□			4.7pF	±0.1pF	CL05C4R7BB5NNN□				
		43pF	±5%	CL05C430JA5NNN□			4.7pF	±0.25pF	CL05C4R7CB5NNN□				
		47pF	±5%	CL05C470JA5NNN□			4.7pF	±0.5pF	CL05C4R7DB5NNN□				
		68pF	±5%	CL05C680JA5NNN□			5.0pF	±0.1pF	CL05C050BB5NNN□				
		82pF	±5%	CL05C820JA5NNN□			5.0pF	±0.25pF	CL05C050CB5NNN□				
		91pF	±5%	CL05C910JA5NNN□			5.0pF	±0.5pF	CL05C050DB5NNN□				
		100pF	±5%	CL05C101JA5NNN□			5.1pF	±0.25pF	CL05C5R1CB5NNN□				
		100pF	±10%	CL05C101KA5NNN□			5.6pF	±0.1pF	CL05C5R6BB5NNN□				
		120pF	±5%	CL05C121JA5NNN□			5.6pF	±0.25pF	CL05C5R6CB5NNN□				
		150pF	±5%	CL05C151JA5NNN□			5.6pF	±0.5pF	CL05C5R6DB5NNN□				
		180pF	±5%	CL05C181JA5NNN□			6.0pF	±0.25pF	CL05C060CB5NNN□				
		220pF	±1%	CL05C221FA5NNN□			6.0pF	±0.5pF	CL05C060DB5NNN□				
		220pF	±5%	CL05C221JA5NNN□			6.2pF	±0.25pF	CL05C6R2CB5NNN□				
		270pF	±5%	CL05C271JA5NNN 🗆			6.2pF	±0.5pF	CL05C6R2DB5NNN□				
		560pF	±5%	CL05C561JA5NNN□			6.8pF	±0.1pF	CL05C6R8BB5NNN□				
		1.0nF	±5%	CL05C102JA5NNN□			6.8pF	±0.25pF	CL05C6R8CB5NNN□				
	50Vdc	0.2pF	±0.1pF	CL05C0R2BB5NNN□			6.8pF	±0.5pF	CL05C6R8DB5NNN□				
		0.3pF	±0.1pF	CL05C0R3BB5NNN□			7.0pF	±0.1pF	CL05C070BB5NNN□				
		0.3pF	±0.25pF	CL05C0R3CB5NNN□			7.0pF	±0.25pF	CL05C070CB5NNN□				
		0.5pF	±0.1pF	CL05C0R5BB5NNN□			7.0pF	±0.5pF	CL05C070DB5NNN□				
		0.5pF	±0.25pF	CL05C0R5CB5NNN□			8.0pF	±0.25pF	CL05C080CB5NNN□				
		0.7pF	±0.1pF	CL05C0R7BB5NNN□			8.0pF	±0.5pF	CL05C080DB5NNN□				
		0.75pF	±0.1pF	CL05CR75BB5NNN□			8.2pF	±0.1pF	CL05C8R2BB5NNN□				
		0.75pF	±0.25pF	CL05CR75CB5NNN□			8.2pF	±0.25pF	CL05C8R2CB5NNN□				
		1.0pF	±0.1pF	CL05C010BB5NNN□			8.2pF	±0.5pF	CL05C8R2DB5NNN□				
		1.0pF	±0.25pF	CL05C010CB5NNN□			9.0pF	±0.25pF	CL05C090CB5NNN□				
		1.2pF	±0.1pF	CL05C1R2BB5NNN□			9.0pF	±0.5pF	CL05C090DB5NNN□				
		1.2pF	±0.25pF	CL05C1R2CB5NNN□			9.1pF	±0.1pF	CL05C9R1BB5NNN□				
		1.3pF	±0.1pF	CL05C1R3BB5NNN□			9.1pF	±0.25pF	CL05C9R1CB5NNN□				
		1.5pF	±0.1pF	CL05C1R5BB5NNN□			10pF	±0.25pF	CL05C100CB5NNN□				
		1.5pF	±0.25pF	CL05C1R5CB5NNN□							10pF	±0.5pF	CL05C100DB5NNN□
		1.8pF	±0.1pF	CL05C1R8BB5NNN□			10pF	±5%	CL05C100JB5NNN□				
		1.8pF	±0.25pF	CL05C1R8CB5NNN□			11pF	±5%	CL05C110JB5NNN□				
		2.0pF	±0.1pF	CL05C020BB5NNN□			12pF	±2%	CL05C120GB5NNN□				
		2.0pF	±0.25pF	CL05C020CB5NNN□			12pF	±5%	CL05C120JB5NNN□				

Product Line Up (COG)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
0.55mm	50Vdc	13pF	±5%	CL05C130JB5NNN□	0.55mm	50Vdc	390pF	±5%	CL05C391JB5NNN□
		14pF	±5%	CL05C140JB5NNN□			470pF	±1%	CL05C471FB5NNN□
		15pF	±5%	CL05C150JB5NNN□	-		470pF	±5%	CL05C471JB5NNN□
		16pF	±5%	CL05C160JB5NNN□			560pF	±5%	CL05C561JB5NNN□
		17pF	±5%	CL05C170JB5NNN□			680pF	±5%	CL05C681JB5NNN□
		18pF	±2%	CL05C180GB5NNN□			820pF	±5%	CL05C821JB5NNN□
		18pF	±5%	CL05C180JB5NNN□			1.0nF	±1%	CL05C102FB5NNN□
		20pF	±2%	CL05C200GB5NNN□			1.0nF	±5%	CL05C102JB5NNN□
		20pF	±5%	CL05C200JB5NNN□					
		22pF	±1%	CL05C220FB5NNN□	■ Size : 1	.60 X 0.80	mm (inch : 06	03)	
		22pF	±2%	CL05C220GB5NNN□	-1.1				
		22pF	±5%	CL05C220JB5NNN□	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
		24pF	±5%	CL05C240JB5NNN□	IVIAA.	voitage		Tolerance	
		26pF	±5%	CL05C260JB5NNN□	0.90mm	16Vdc	68pF	±1%	CL10C680F08NNN□
		27pF	±1%	CL05C270FB5NNN□			68pF	±2%	CL10C680G08NNN□
		27pF	±5%	CL05C270JB5NNN□			100pF	±2%	CL10C101G08NNN□
		30pF	±5%	CL05C300JB5NNN□		820pF	±5%	CL10C821J08NNN□	
		33pF	±1%	CL05C330FB5NNN□			1.0nF	±5%	CL10C102J08NNN
		33pF	±5%	CL05C330JB5NNN□			2.2nF	±5%	CL10C222J08NNN□
		36pF	±5%	CL05C360JB5NNN□			3.9nF	±5%	CL10C392J08NNN□
		39pF	±2%	CL05C390GB5NNN□		25Vdc	10pF	±0.5pF	CL10C100DA8NNN□
		39pF	±5%	CL05C390JB5NNN□			10pF	±5%	CL10C100JA8NNN□
		43pF	±2%	CL05C430GB5NNN□			15pF	±5%	CL10C150JA8NNN□
		43pF	±5%	CL05C430JB5NNN□			20pF	±5%	CL10C200JA8NNN□
		47pF	±1%	CL05C470FB5NNN□			33pF	±5%	CL10C330JA8NNN□
		47pF	±5%	CL05C470JB5NNN□	_		47pF	±5%	CL10C470JA8NNN□
		51pF	±5%	CL05C510JB5NNN□	_		68pF	±5%	CL10C680JA8NNN□
		56pF	±1%	CL05C560FB5NNN□			100pF	±5%	CL10C101JA8NNN□
		56pF	±5%	CL05C560JB5NNN□	_		100pF	±10%	CL10C101KA8NNN□
		62pF	±2%	CL05C620GB5NNN□			120pF	±5%	CL10C121JA8NNN□
		62pF	±5%	CL05C620JB5NNN□			150pF	±5%	CL10C151JA8NNN□
		68pF	±5%	CL05C680JB5NNN□			180pF	±5%	CL10C181JA8NNN□
		75pF	±5%	CL05C750JB5NNN□	_		270pF	±10%	CL10C271KA8NNN□
		82pF	±5%	CL05C820JB5NNN□	_		330pF	±10%	CL10C331KA8NNN□
		91pF	±5%	CL05C910JB5NNN□	_		390pF	±5%	CL10C391JA8NNN□
		100pF	±1%	CL05C101FB5NNN□	_		470pF	±5%	CL10C471JA8NNN□
		100pF	±2%	CL05C101GB5NNN□	_		560pF	±5%	CL10C561JA8NNN□
		100pF	±5%	CL05C101JB5NNN□			680pF	±5%	CL10C681JA8NNN□
		100pF	±10%	CL05C101KB5NNN□			820pF	±5%	CL10C821JA8NNN□
		110pF	±5%	CL05C111JB5NNN□			1.5nF	±2%	CL10C152GA8NNN□
		120pF	±2%	CL05C121GB5NNN□			1.5nF	±5%	CL10C152JA8NNN□
		120pF	±5%	CL05C121JB5NNN□	_		1.8nF	±5%	CL10C182JA8NNN□
		130pF	±5%	CL05C131JB5NNN□	_		10nF	±5%	CL10C103JA8NNN□
		150pF	±5%	CL05C151JB5NNN□	_		1.0nF	±2%	CL10C102GA8NNN□
		160pF	±5%	CL05C161JB5NNN□	_		1.0nF	±5%	CL10C102JA8NNN□
		180pF	±5%	CL05C181JB5NNN□			2.2nF	±2%	CL10C222GA8NNN□
		200pF	±5%	CL05C201JB5NNN□			2.2nF	±5%	CL10C222JA8NNN□
		220pF	±1%	CL05C221FB5NNN□			3.3nF	±2%	CL10C332GA8NNN□
		220pF	±2%	CL05C221GB5NNN□			3.3nF	±5%	CL10C332JA8NNN□
		220pF	±5%	CL05C221JB5NNN□			3.9nF	±5%	CL10C392JA8NNN□
		240pF	±5%	CL05C241JB5NNN□		50Vdc	0.2pF	±0.1pF	CL10C0R2BB8NNN□
		270pF	±5%	CL05C271JB5NNN□			0.2pF	±0.25pF	CL10C0R2CB8NNN□
		300pF	±5%	CL05C301JB5NNN□			0.3pF	±0.1pF	CL10C0R3BB8NNN□
		330pF	±5%	CL05C331JB5NNN□			0.3pF	±0.25pF	CL10C0R3CB8NNN□

 $[\]mbox{\tt \@mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (COG)

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
0.90mm	50Vdc	0.47pF	±0.1pF	CL10CR47BB8NNN□	0.90mm	50Vdc	6.8pF	±0.25pF	CL10C6R8CB8NNN□
		0.5pF	±0.1pF	CL10C0R5BB8NNN□			6.8pF	±0.5pF	CL10C6R8DB8NNN□
		0.5pF	±0.25pF	CL10C0R5CB8NNN□			7.0pF	±0.1pF	CL10C070BB8NNN□
		0.56pF	±0.1pF	CL10CR56BB8NNN□			7.0pF	±0.25pF	CL10C070CB8NNN□
		0.68pF	±0.1pF	CL10CR68BB8NNN□			7.0pF	±0.5pF	CL10C070DB8NNN□
		0.75pF	±0.1pF	CL10CR75BB8NNN□			7.5pF	±0.1pF	CL10C7R5BB8NNN□
		0.75pF	±0.25pF	CL10CR75CB8NNN□			7.5pF	±0.25pF	CL10C7R5CB8NNN□
		0.8pF	±0.1pF	CL10C0R8BB8NNN□			7.5pF	±0.5pF	CL10C7R5DB8NNN□
		0.82pF	±0.1pF	CL10CR82BB8NNN□			8.0pF	±0.25pF	CL10C080CB8NNN□
		1.0pF	±0.1pF	CL10C010BB8NNN□			8.0pF	±0.5pF	CL10C080DB8NNN□
		1.0pF	±0.25pF	CL10C010CB8NNN□			8.2pF	±0.1pF	CL10C8R2BB8NNN□
		1.2pF	±0.1pF	CL10C1R2BB8NNN□			8.2pF	±0.25pF	CL10C8R2CB8NNN□
		1.2pF	±0.25pF	CL10C1R2CB8NNN□			8.2pF	±0.5pF	CL10C8R2DB8NNN□
		1.5pF	±0.1pF	CL10C1R5BB8NNN□			9.0pF	±0.25pF	CL10C090CB8NNN□
		1.5pF	±0.25pF	CL10C1R5CB8NNN□			9.0pF	±0.5pF	CL10C090DB8NNN□
		1.8pF	±0.1pF	CL10C1R8BB8NNN□			9.1pF	±0.25pF	CL10C9R1CB8NNN□
		1.8pF	±0.25pF	CL10C1R8CB8NNN□			9.1pF	±0.5pF	CL10C9R1DB8NNN□
		2.0pF	±0.1pF	CL10C020BB8NNN□			10pF	±0.1pF	CL10C100BB8NNN□
		2.0pF	±0.25pF	CL10C020CB8NNN□			10pF	±0.25pF	CL10C100CB8NNN□
		2.2pF	±0.1pF	CL10C2R2BB8NNN□			10pF	±0.5pF	CL10C100DB8NNN□
		2.2pF	±0.25pF	CL10C2R2CB8NNN□			10pF	±1%	CL10C100FB8NNN□
		2.4pF	±0.1pF	CL10C2R4BB8NNN□			10pF	±2%	CL10C100GB8NNN□
		2.4pF	±0.25pF	CL10C2R4CB8NNN□			10pF	±5%	CL10C100JB8NNN□
		2.5pF	±0.1pF	CL10C2R5BB8NNN□			10pF	±10%	CL10C100KB8NNN□
		2.5pF	±0.25pF	CL10C2R5CB8NNN□			11pF	±2%	CL10C110GB8NNN□
		2.7pF	±0.1pF	CL10C2R7BB8NNN□			11pF	±5%	CL10C110JB8NNN□
		2.7pF	±0.25pF	CL10C2R7CB8NNN□			12pF	±1%	CL10C120FB8NNN□
		3.0pF	±0.1pF	CL10C030BB8NNN□			12pF	±2%	CL10C120GB8NNN□
		3.0pF	±0.25pF	CL10C030CB8NNN□			12pF	±5%	CL10C120JB8NNN□
		3.3pF	±0.1pF	CL10C3R3BB8NNN□			13pF	±2%	CL10C130GB8NNN□
		3.3pF	±0.25pF	CL10C3R3CB8NNN□			13pF	±5%	CL10C130JB8NNN□
		3.5pF	±0.25pF	CL10C3R5CB8NNN□			14pF	±5%	CL10C140JB8NNN□
		3.6pF	±0.1pF	CL10C3R6BB8NNN□			15pF	±1%	CL10C150FB8NNN□
		3.6pF	±0.25pF	CL10C3R6CB8NNN□			15pF	±2%	CL10C150GB8NNN□
		3.9pF	±0.1pF	CL10C3R9BB8NNN□			15pF	±5%	CL10C150JB8NNN□
		3.9pF	±0.25pF	CL10C3R9CB8NNN□			15pF	±10%	CL10C150KB8NNN□
		4.0pF	±0.1pF	CL10C040BB8NNN□			16pF	±5%	CL10C160JB8NNN□
		4.0pF	±0.25pF	CL10C040CB8NNN□			17pF	±5%	CL10C170JB8NNN□
		4.3pF	±0.1pF	CL10C4R3BB8NNN□			18pF	±1%	CL10C180FB8NNN□
		4.3pF	±0.25pF	CL10C4R3CB8NNN□			18pF	±2%	CL10C180GB8NNN□
		4.7pF	±0.1pF	CL10C4R7BB8NNN□			18pF	±5%	CL10C180JB8NNN□
		4.7pF	±0.25pF	CL10C4R7CB8NNN□			19pF	±5%	CL10C190JB8NNN□
		5.0pF	±0.1pF	CL10C050BB8NNN□			20pF	±1%	CL10C200FB8NNN□
		5.0pF	±0.25pF	CL10C050CB8NNN□			20pF	±2%	CL10C200GB8NNN□
		5.0pF	±0.5pF	CL10C050DB8NNN□			20pF	±5%	CL10C200JB8NNN□
		5.1pF	±0.25pF	CL10C5R1CB8NNN□			21pF	±5%	CL10C210JB8NNN□
		5.6pF	±0.1pF	CL10C5R6BB8NNN□			22pF	±1%	CL10C220FB8NNN□
		5.6pF	±0.25pF	CL10C5R6CB8NNN□			22pF	±2%	CL10C220GB8NNN□
		5.6pF	±0.5pF	CL10C5R6DB8NNN□			22pF	±5%	CL10C220JB8NNN□
		6.0pF	±0.25pF	CL10C060CB8NNN□			22pF	±10%	CL10C220KB8NNN□
		6.0pF	±0.5pF	CL10C060DB8NNN□			23pF	±5%	CL10C230JB8NNN□
		6.2pF	±0.25pF	CL10C6R2CB8NNN□			24pF	±2%	CL10C240GB8NNN□
		6.2pF	±0.5pF	CL10C6R2DB8NNN□			24pF	±5%	CL10C240JB8NNN□
		6.8pF	±0.1pF	CL10C6R8BB8NNN□			25pF	±5%	CL10C250JB8NNN□

Product Line Up (COG)

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number																		
0.90mm	50Vdc	26pF	±5%	CL10C260JB8NNN□	0.90mm	50Vdc	91pF	±5%	CL10C910JB8NNN□																		
		27pF	±1%	CL10C270FB8NNN□			95pF	±5%	CL10C950JB8NNN□																		
		27pF	±2%	CL10C270GB8NNN□			100pF	±1%	CL10C101FB8NNN□																		
		27pF	±5%	CL10C270JB8NNN□			100pF	±2%	CL10C101GB8NNN□																		
		28pF	±2%	CL10C280GB8NNN□			100pF	±5%	CL10C101JB8NNN□																		
		28pF	±5%	CL10C280JB8NNN□			100pF	±10%	CL10C101KB8NNN□																		
		30pF	±1%	CL10C300FB8NNN□			110pF	±5%	CL10C111JB8NNN□																		
		30pF	±5%	CL10C300JB8NNN□	-		120pF	±1%	CL10C121FB8NNN□																		
		32pF	±2%	CL10C320GB8NNN□			120pF	±2%	CL10C121GB8NNN□																		
		32pF	±5%	CL10C320JB8NNN□				120pF	±5%	CL10C121JB8NNN□																	
		33pF	±1%	CL10C330FB8NNN□				120pF	±10%	CL10C121KB8NNN□																	
		33pF	±2%	CL10C330GB8NNN□			130pF	±1%	CL10C131FB8NNN□																		
		33pF	±5%	CL10C330JB8NNN□			130pF	±5%	CL10C131JB8NNN□																		
		33pF	±10%	CL10C330KB8NNN□			140pF	±5%	CL10C141JB8NNN□																		
		35pF	±2%	CL10C350GB8NNN□			150pF	±2%	CL10C151GB8NNN□																		
		35pF	±5%	CL10C350JB8NNN□			150pF	±5%	CL10C151JB8NNN□																		
		36pF	±2%	CL10C360GB8NNN□			160pF	±5%	CL10C161JB8NNN□																		
		36pF	±5%	CL10C360JB8NNN□			170pF	±2%	CL10C171GB8NNN□																		
		39pF	±1%	CL10C390FB8NNN□			170pF	±5%	CL10C171JB8NNN□																		
		39pF	±2%	CL10C390GB8NNN□			180pF	±1%	CL10C181FB8NNN□																		
		39pF	±5%	CL10C390JB8NNN□			180pF	±2%	CL10C181GB8NNN□																		
		41pF	±2%	CL10C410GB8NNN□			180pF	±5%	CL10C181JB8NNN□																		
		41pF	±5%	CL10C410JB8NNN□			190pF	±5%	CL10C191JB8NNN□																		
		42pF	±5%	CL10C420JB8NNN□			200pF	±1%	CL10C201FB8NNN□																		
		43pF	±5%	CL10C430JB8NNN□			200pF	±5%	CL10C201JB8NNN□																		
		47pF	±1%	CL10C470FB8NNN□			220pF	±1%	CL10C221FB8NNN□																		
		47pF	±2%	CL10C470GB8NNN□				220pF	±2%	CL10C221GB8NNN□																	
		47pF	±5%	CL10C470JB8NNN□				220pF	±5%	CL10C221JB8NNN□																	
		47pF	±10%	CL10C470KB8NNN□			220pF	±10%	CL10C221KB8NNN□																		
		50pF	±5%	CL10C500JB8NNN□						240pF	±5%	CL10C241JB8NNN□															
		51pF	±2%	CL10C510GB8NNN□				250pF	±5%	CL10C251JB8NNN□																	
		51pF	±5%	CL10C510JB8NNN□			270pF	±1%	CL10C271FB8NNN□																		
		56pF	±1%	CL10C560FB8NNN□			270pF	±2%	CL10C271GB8NNN□																		
		56pF	±2%	CL10C560GB8NNN□			270pF	±5%	CL10C271JB8NNN□																		
		56pF	±5%	CL10C560JB8NNN□			280pF	±5%	CL10C281JB8NNN□																		
		56pF	±10%	CL10C560KB8NNN□			300pF	±5%	CL10C301JB8NNN□																		
		60pF	±5%	CL10C600JB8NNN□			330pF	±0.25pF	CL10C331CB8NNN□																		
		62pF	±2%	CL10C620GB8NNN□			330pF	±1%	CL10C331FB8NNN□																		
		62pF	±5%	CL10C620JB8NNN□			330pF	±2%	CL10C331GB8NNN□																		
		68pF	±1%	CL10C680FB8NNN□			330pF	±5%	CL10C331JB8NNN□																		
		68pF	±2%	CL10C680GB8NNN□			350pF	±5%	CL10C351JB8NNN 🗆																		
		68pF	±5%	CL10C680JB8NNN□			360pF	±5%	CL10C361JB8NNN□																		
		68pF	±10%	CL10C680KB8NNN□			390pF	±1%	CL10C391FB8NNN□																		
		70pF	±2%	CL10C700GB8NNN□			390pF	±2%	CL10C391GB8NNN□																		
		70pF	±5%	CL10C700JB8NNN□			390pF	±5%	CL10C391JB8NNN□																		
		75pF	±2%	CL10C750GB8NNN□			390pF	±10%	CL10C391KB8NNN□																		
		75pF	±5%	CL10C750JB8NNN□			430pF	±5%	CL10C431JB8NNN□																		
		80pF	±2%	CL10C800GB8NNN□			470pF	±1%	CL10C471FB8NNN□																		
		80pF	±5%	CL10C800JB8NNN			470pF	±2%	CL10C471GB8NNN□																		
		82pF	±1%	CL10C820FB8NNN□								470pF	±5%	CL10C471JB8NNN													
		82pF	±2%	CL10C820GB8NNN□																							
		82pF	±5%	CL10C820JB8NNN														500pF	±5%	CL10C501JB8NNN							
		90pF	±5%	CL10C900JB8NNN					510pF	±5%	CL10C511JB8NNN																
		91pF	±2%	CL10C910GB8NNN			560pF	±1%	CL10C561FB8NNN																		

 $[\]mbox{\tt \@mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148

Rated

Voltage

50Vdc

Capacitance

2.0pF

2.2pF

2.2pF

2.4pF

2.5pF

2.7pF

2.7pF

3.0pF

3.0pF

3.2pF

3.3pF

3.3pF

3.6pF

3.6pF

3.9pF

3.9pF

4.0pF

4.0pF

4.7pF

4.7pF

5.0pF

5.0pF

5.1pF

5.6pF

5.6pF 6.0pF

6.0pF

6.2pF

6.8pF

6.8pF

7.0pF

7.0pF

7.5pF

7.5pF

8.0pF

8.0pF

8.2pF

8.2pF

8.2pF

9.0pF

9.0pF

10pF

10pF

10pF

10pF

10pF

10pF

12pF

12pF

12pF

13pF

14pF

15pF

15pF

Capacitance

Tolerance

±0.25pF

±0.1pF

±0.25pF

±0.25pF

 $\pm 0.25 pF$

±0.1pF

±0.25pF

±0.1pF

±0.25pF

±0.25pF

±0.1pF

±0.25pF

±0.1pF

 $\pm 0.25 pF$

 ± 0.1 pF

+0.25pF

±0.1pF

±0.25pF

±0.1pF

±0.25pF

±0.1pF

±0.25pF

 $\pm 0.25 pF$

±0.25pF

±0.5pF

±0.25pF

±0.5pF

±0.25pF

±0.25pF

±0.5pF

±0.25pF

±0.5pF

 $\pm 0.25 pF$

 $\pm 0.5 pF$

±0.25pF

±0.5pF

±0.1pF

±0.25pF

±0.5pF

±0.25pF

±0.5pF

±0.1pF

±0.25pF

±0.5pF

±1%

±2%

±5%

±1%

±2%

±5%

±5%

+5%

+2%

±5%

Part Number

CL21C020CBANNN□

CL21C2R2BBANNN□

CL21C2R2CBANNN□

CL21C2R4CBANNN□

CL21C2R5CBANNN□

CL21C2R7BBANNN□

CL21C2R7CBANNN□

CL21C030BBANNN

CL21C030CBANNN□

CL21C3R2CBANNN□

CL21C3R3BBANNN□

CL21C3R3CBANNN□

CL21C3R6BBANNN□

CL21C3R6CBANNN□

CL21C3R9BBANNN□

CL21C3R9CBANNN

CL21C040BBANNN II

CL21C040CBANNN□

CL21C4R7BBANNN□

CL21C4R7CBANNN□

CL21C050BBANNN□

CL21C050CBANNN□

CL21C5R1CBANNN□

CL21C5R6CBANNN□

CI.21C5R6DBANNN I

CL21C060CBANNN II

CL21C060DBANNN□

CL21C6R2CBANNN□

CL21C6R8CBANNN□

CL21C6R8DBANNN□

CL21C070CBANNN□

CL21C070DBANNN□

CL21C7R5CBANNN□

CL21C7R5DBANNN

CL21C080CBANNN II

CL21C080DBANNN□

CL21C8R2BBANNN□

CL21C8R2CBANNN□

CL21C8R2DBANNN□

CL21C090CBANNN□

CL21C090DBANNN□

CL21C100BBANNN□

CL21C100CBANNN

CL21C100DBANNN□

CL21C100FBANNN□

CL21C100GBANNN□

CL21C100JBANNN□

CL21C120FBANNN□

CL21C120GBANNN□

CL21C120JBANNN□

CL21C130JBANNN II

CL21C140JBANNN

CL21C150GBANNN

CL21C150JBANNN

Product Line Up (C0G)

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.
0.90mm	50Vdc	560pF	±2%	CL10C561GB8NNN□	0.75mm
		560pF	±5%	CL10C561JB8NNN□	
		560pF	±10%	CL10C561KB8NNN□	
		620pF	±5%	CL10C621JB8NNN□	
		680pF	±1%	CL10C681FB8NNN□	
		680pF	±2%	CL10C681GB8NNN□	
		680pF	±5%	CL10C681JB8NNN□	
		680pF	±10%	CL10C681KB8NNN□	
		720pF	±5%	CL10C721JB8NNN□	
		750pF	±5%	CL10C751JB8NNN□	
		820pF	±1%	CL10C821FB8NNN□	
		820pF	±2%	CL10C821GB8NNN□	
		820pF	±5%	CL10C821JB8NNN□	
		820pF	±10%	CL10C821KB8NNN□	
		910pF	±5%	CL10C911JB8NNN□	
		1.0nF	±1%	CL10C102FB8NNN□	
		1.0nF	±2%	CL10C102GB8NNN□	
		1.0nF	±5%	CL10C102JB8NNN□	
		1.2nF	±5%	CL10C122JB8NNN□	
		1.5nF	±5%	CL10C152JB8NNN□	
		1.8nF	±5%	CL10C182JB8NNN□	
		2.2nF	±5%	CL10C222JB8NNN□	
		2.7nF	±5%	CL10C272JB8NNN□	
		3.3nF	±5%	CL10C332JB8NNN□	
		4.7nF	±5%	CL10C472JB8NNN□	
		5.6nF	±5%	CL10C562JB8NNN□	

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number										
0.75mm	25Vdc	220pF	±2%	CL21C221GAANNN□										
		220pF	±5%	CL21C221JAANNN□										
		270pF	±5%	CL21C271JAANNN□										
		680pF	±5%	CL21C681JAANNN□										
		1.5nF	±5%	CL21C152JAANNN□										
		3.9nF	±5%	CL21C392JAANNN□										
	50Vdc	0.47pF	±0.1pF	CL21CR47BBANNN□										
		0.47pF	±0.25pF	CL21CR47CBANNN□										
		0.5pF	±0.1pF	CL21C0R5BBANNN□										
			0.5pF	±0.25pF	CL21C0R5CBANNN□									
												0.68pF	±0.1pF	CL21CR68BBANNN□
												0.75pF	±0.1pF	CL21CR75BBANNN□
		0.82pF	±0.1pF	CL21CR82BBANNN□										
		-	-						0.82pF	±0.25pF	CL21CR82CBANNN□			
		1.0pF	±0.1pF	CL21C010BBANNN□										
		1.0pF	±0.25pF	CL21C010CBANNN□										
		1.2pF	±0.1pF	CL21C1R2BBANNN□										
		1.2pF	±0.25pF	CL21C1R2CBANNN□										
		1.5pF	±0.1pF	CL21C1R5BBANNN□										
		1.5pF	±0.25pF	CL21C1R5CBANNN□										
		1.8pF	±0.1pF	CL21C1R8BBANNN□										
		1.8pF	±0.25pF	CL21C1R8CBANNN□										
		1.8pF	±0.5pF	CL21C1R8DBANNN□										

^{*} mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (COG)

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number							
0.75mm	50Vdc	15pF	±10%	CL21C150KBANNN□	0.75mm	50Vdc	75pF	±5%	CL21C750JBANNN 🗆							
		16pF	±5%	CL21C160JBANNN□			80pF	±2%	CL21C800GBANNN□							
		17pF	±5%	CL21C170JBANNN□			80pF	±5%	CL21C800JBANNN□							
		18pF	±1%	CL21C180FBANNN□			82pF	±1%	CL21C820FBANNN□							
		18pF	±2%	CL21C180GBANNN□			82pF	±2%	CL21C820GBANNN□							
		18pF	±5%	CL21C180JBANNN□			82pF	±5%	CL21C820JBANNN□							
		20pF	±2%	CL21C200GBANNN□			90pF	±5%	CL21C900JBANNN							
		20pF	±5%	CL21C200JBANNN□			91pF	±5%	CL21C910JBANNN							
		22pF	±1%	CL21C220FBANNN□			100pF	±1%	CL21C101FBANNN□							
		22pF	±2%	CL21C220GBANNN□			100pF	±2%	CL21C101GBANNN□							
		22pF	±5%	CL21C220JBANNN□				100pF	±5%	CL21C101JBANNN□						
		22pF	±10%	CL21C220KBANNN□			100pF	±10%	CL21C101KBANNN□							
		23pF	±5%	CL21C230JBANNN□			110pF	±5%	CL21C111JBANNN							
		24pF	±2%	CL21C240GBANNN□			120pF	±1%	CL21C121FBANNN							
		24pF	±5%	CL21C240JBANNN□			120pF	±2%	CL21C121GBANNN□							
		25pF	±5%	CL21C250JBANNN□			120pF	±5%	CL21C121JBANNN□							
		27pF	±1%	CL21C270FBANNN□			130pF	±5%	CL21C131JBANNN□							
		27pF	±2%	CL21C270GBANNN□			150pF	±1%	CL21C151FBANNN							
		27pF	±5%	CL21C270JBANNN□			150pF	±2%	CL21C151GBANNN□							
		28pF	±5%	CL21C280JBANNN□			150pF	±5%	CL21C151JBANNN							
		30pF	±5%	CL21C300JBANNN□			160pF	±5%	CL21C161JBANNN□							
		32pF	±2%	CL21C320GBANNN□			180pF	±1%	CL21C181FBANNN□							
	32pF	±5%	CL21C320JBANNN□			180pF	±2%	CL21C181GBANNN□								
		33pF	±1%	CL21C330FBANNN□			180pF	±5%	CL21C181JBANNN□							
	33pF	±2%	CL21C330GBANNN□			200pF	±5%	CL21C201JBANNN								
	33pF	±5%	CL21C330JBANNN□				220pF	±1%	CL21C221FBANNN□							
		33pF	±10%	CL21C330KBANNN□				220pF	±2%	CL21C221GBANNN□						
		36pF	±5%	CL21C360JBANNN□				220pF	±5%	CL21C221JBANNN□						
		38pF	±2%	CL21C380GBANNN□				220pF	±10%	CL21C221KBANNN□						
		38pF	±5%	CL21C380JBANNN□				240pF	±5%	CL21C241JBANNN□						
		39pF	±2%	CL21C390GBANNN□				250pF	±5%	CL21C251JBANNN□						
		39pF	±5%	CL21C390JBANNN□			260pF	±5%	CL21C261JBANNN□							
		40pF	±2%	CL21C400GBANNN□			270pF	±1%	CL21C271FBANNN□							
		40pF	±5%	CL21C400JBANNN□			270pF	±2%	CL21C271GBANNN□							
		43pF	±5%	CL21C430JBANNN□			270pF	±5%	CL21C271JBANNN□							
		47pF	±1%	CL21C470FBANNN□			300pF	±5%	CL21C301JBANNN							
		47pF	±2%	CL21C470GBANNN□			330pF	±1%	CL21C331FBANNN□							
		47pF	±5%	CL21C470JBANNN□			330pF	±2%	CL21C331GBANNN□							
		47pF	±10%	CL21C470KBANNN□			330pF	±5%	CL21C331JBANNN□							
		50pF	±5%	CL21C500JBANNN□			360pF	±5%	CL21C361JBANNN□							
		51pF	±2%	CL21C510GBANNN□			390pF	±1%	CL21C391FBANNN□							
		51pF	±5%	CL21C510JBANNN□			390pF	±2%	CL21C391GBANNN□							
		56pF	±1%	CL21C560FBANNN□			390pF	±5%	CL21C391JBANNN□							
		56pF	±2%	CL21C560GBANNN□			430pF	±5%	CL21C431JBANNN□							
		56pF	±5%	CL21C560JBANNN□			470pF	±1%	CL21C471FBANNN□							
		60pF	±5%	CL21C600JBANNN□			470pF	±2%	CL21C471GBANNN□							
		62pF	±5%	CL21C620JBANNN□			470pF	±5%	CL21C471JBANNN□							
		68pF	±1%	CL21C680FBANNN□			470pF	±10%	CL21C471KBANNN□							
		68pF	±2%	CL21C680GBANNN□			510pF	±5%	CL21C511JBANNN 🗆							
		68pF	±5%	CL21C680JBANNN□				560pF	±1%	CL21C561FBANNN□						
		68pF	±10%	CL21C680KBANNN□										560pF	±2%	CL21C561GBANNN□
		70pF	±5%	CL21C700JBANNN□												
		70pF	±10%	CL21C700KBANNN□			680pF	±5%	CL21C681JBANNN 🗆							
		75pF	±2%	CL21C750GBANNN□	0.95mm	50Vdc	5.0pF	±0.25pF	CL21C050CBCNNN□							

 $[\]mbox{\tt \@mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (COG)

■ Size: 2.00 X 1.25mm (inch: 0805)

		min (inch : 08			Thislenges	Datad		Conscitones	
Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
0.95mm	50Vdc	10pF	±0.1pF	CL21C100BBCNNN□	0.95mm	50Vdc	1.0nF	±2%	CL21C102GBCNNN□
		10pF	±5%	CL21C100JBCNNN□			1.0nF	±5%	CL21C102JBCNNN□
		11pF	±2%	CL21C110GBCNNN□			1.0nF	±10%	CL21C102KBCNNN□
		11pF	±5%	CL21C110JBCNNN□	1.35mm	25Vdc	270pF	±5%	CL21C271JAFNNN□
		12pF	±2%	CL21C120GBCNNN□			2.7nF	±5%	CL21C272JAFNNN□
		12pF	±5%	CL21C120JBCNNN□			3.3nF	±5%	CL21C332JAFNNN□
		13pF	±2%	CL21C130GBCNNN□			3.9nF	±5%	CL21C392JAFNNN□
		15pF	±2%	CL21C150GBCNNN□			4.7nF	±5%	CL21C472JAFNNN□
		15pF	±5%	CL21C150JBCNNN□			4.7nF	±10%	CL21C472KAFNNN□
		16pF	±2%	CL21C160GBCNNN□			8.2nF	±5%	CL21C822JAFNNN□
		18pF	±2%	CL21C180GBCNNN□			10nF	±2%	CL21C103GAFNNN□
		18pF	±5%	CL21C180JBCNNN□			10nF	±5%	CL21C103JAFNNN□
		20pF	±2%	CL21C200GBCNNN□		50Vdc	1.2nF	±1%	CL21C122FBFNNN□
		20pF	±5%	CL21C200JBCNNN□			1.2nF	±2%	CL21C122GBFNNN□
		22pF	±2%	CL21C220GBCNNN□			1.2nF	±5%	CL21C122JBFNNN□
		22pF	±5%	CL21C220JBCNNN□			1.3nF	±5%	CL21C132JBFNNN□
		24pF	±2%	CL21C240GBCNNN□			1.5nF	±1%	CL21C152FBFNNN□
		30pF	±2%	CL21C300GBCNNN□			1.5nF	±2%	CL21C152GBFNNN□
		30pF	±5%	CL21C300JBCNNN□			1.5nF	±5%	CL21C152JBFNNN□
		36pF	±2%	CL21C360GBCNNN□			1.6nF	±5%	CL21C162JBFNNN□
		36pF	±5%	CL21C360JBCNNN□			1.8nF	±2%	CL21C182GBFNNN□
		39pF	±5%	CL21C390JBCNNN□			1.8nF	±5%	CL21C182JBFNNN□
		43pF	±2%	CL21C430GBCNNN□			2.0nF	±5%	CL21C202JBFNNN□
		43pF	±5%	CL21C430JBCNNN□			2.2nF	±2%	CL21C222GBFNNN□
		47pF	±5%	CL21C470JBCNNN□			2.2nF	±5%	CL21C222JBFNNN□
		51pF	±5%	CL21C510JBCNNN□			2.7nF	±5%	CL21C272JBFNNN□
		51pF	±10%	CL21C510KBCNNN□			3.3nF	±5%	CL21C332JBFNNN□
		56pF	±2%	CL21C560GBCNNN□			3.9nF	±5%	CL21C392JBFNNN□
		56pF	±5%	CL21C560JBCNNN□			4.7nF	±5%	CL21C472JBFNNN□
		68pF	±5%	CL21C680JBCNNN□			5.6nF	±5%	CL21C562JBFNNN□
		82pF	±5%	CL21C820JBCNNN□			6.8nF	±5%	CL21C682JBFNNN□
		100pF	±5%	CL21C101JBCNNN□			10nF	±5%	CL21C103JBFNNN□
		120pF	±1%	CL21C121FBCNNN□				•	
		120pF	±5%	CL21C121JBCNNN□	■ Size : 3	.20 X 1.60	mm (inch : 12	06)	
		120pF	±10%	CL21C121KBCNNN□					
		150pF	±5%	CL21C151JBCNNN□	Thickness	Rated	Capacitance	Capacitance Tolerance	Part Number
		180pF	±5%	CL21C181JBCNNN□	Max.	x. Voltage		Tolerance	

CL21C121JBCNNN□	■ Size : 3	3.20 X 1.60	mm (inch : 12	06)	
CL21C121KBCNNN□					
CL21C151JBCNNN□	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
CL21C181JBCNNN□	IVIAA.	voitage		Tolerance	
CL21C221JBCNNN□	1.00mm	25Vdc	330pF	±5%	CL31C331JACNNN□
CL21C301JBCNNN□			470pF	±10%	CL31C471KACNNN□
CL21C331GBCNNN□		50Vdc	0.5pF	±0.25pF	CL31C0R5CBCNNN□
CL21C471JBCNNN□			1.0pF	±0.25pF	CL31C010CBCNNN□
CL21C511JBCNNN□			1.2pF	±0.25pF	CL31C1R2CBCNNN□
CL21C561JBCNNN□			1.8pF	±0.25pF	CL31C1R8CBCNNN□
CL21C601JBCNNN□			2.0pF	±0.25pF	CL31C020CBCNNN□
CL21C621JBCNNN□			2.2pF	±0.25pF	CL31C2R2CBCNNN□
CL21C681FBCNNN□			2.7pF	±0.1pF	CL31C2R7BBCNNN□
CL21C681GBCNNN□			2.7pF	±0.25pF	CL31C2R7CBCNNN□
CL21C681JBCNNN□			3.0pF	±0.25pF	CL31C030CBCNNN□
CL21C751JBCNNN□			3.3pF	±0.25pF	CL31C3R3CBCNNN□
CL21C821FBCNNN□			3.9pF	±0.1pF	CL31C3R9BBCNNN□
CL21C821GBCNNN□			4.3pF	±0.1pF	CL31C4R3BBCNNN□
CL21C821JBCNNN□			4.7pF	±0.25pF	CL31C4R7CBCNNN□
CL21C911JBCNNN□			5.6pF	±0.25pF	CL31C5R6CBCNNN□
CL21C102FBCNNN□			5.6pF	±0.5pF	CL31C5R6DBCNNN□

^{±1%}

±5%

±5%

 $\pm 2\%$

 $\pm 5\%$

±5%

±5%

±5%

±5%

±1%

±2%

±5%

±5%

 $\pm 1\%$

±2% ±5%

±5%

220pF

300pF

330pF

470pF

510pF

560pF

600pF

620pF

680pF

680pF

680pF

750pF

820pF

820pF

7q028 910pF

1.0nF

Product Line Up (COG)

■ Size: 3.20 X 1.60mm (inch: 1206)

hickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	
1.00mm	50Vdc	6.0pF	±0.5pF	CL31C060DBCNNN□	1.00mm	50Vdc	200pF	±5%	CL31C201JBCNNN	
		6.8pF	±0.25pF	CL31C6R8CBCNNN□			220pF	±1%	CL31C221FBCNNN	
		8.0pF	±0.25pF	CL31C080CBCNNN□			220pF	±2%	CL31C221GBCNNN	
		8.2pF	±0.25pF	CL31C8R2CBCNNN□			220pF	±5%	CL31C221JBCNNN	
		10pF	±0.5pF	CL31C100DBCNNN□			240pF	±5%	CL31C241JBCNNN	
		10pF	±5%	CL31C100JBCNNN□			270pF	±5%	CL31C271JBCNNN	
		11pF	±5%	CL31C110JBCNNN□			300pF	±5%	CL31C301JBCNNN1	
		12pF	±5%	CL31C120JBCNNN□			330pF	±1%	CL31C331FBCNNN	
		13pF	±5%	CL31C130JBCNNN□			330pF	±2%	CL31C331GBCNNN	
		15pF	±5%	CL31C150JBCNNN□			330pF	±5%	CL31C331JBCNNN	
		15pF	±10%	CL31C150KBCNNN□				360pF	±1%	CL31C361FBCNNN
		16pF	±5%	CL31C160JBCNNN□			360pF	±5%	CL31C361JBCNNN	
		18pF	±5%	CL31C180JBCNNN□				390pF	±1%	CL31C391FBCNNN
		20pF	±2%	CL31C200GBCNNN□				390pF	±2%	CL31C391GBCNNN
		20pF	±5%	CL31C200JBCNNN□				390pF	±5%	CL31C391JBCNNN
		22pF	±1%	CL31C220FBCNNN□		430pF	±5%	CL31C431JBCNNN		
		22pF	±5%	CL31C220JBCNNN□			470pF	±1%	CL31C471FBCNNN	
		24pF	±2%	CL31C240GBCNNN□			470pF	±2%	CL31C471GBCNNN	
		24pF	±5%	CL31C240JBCNNN□			470pF	±5%	CL31C471JBCNNN	
		25pF	±5%	CL31C250JBCNNN□				470pF	±10%	CL31C471KBCNNN
		27pF	±1%	CL31C270FBCNNN□			510pF	±5%	CL31C511JBCNNN	
		27pF	±2%	CL31C270GBCNNN□			560pF	±1%	CL31C561FBCNNN	
		27pF	±5%	CL31C270JBCNNN□			560pF	±5%	CL31C561JBCNNN	
		30pF	±5%	CL31C300JBCNNN□			620pF	±5%	CL31C621JBCNNN	
		33pF	±1%	CL31C330FBCNNN□			680pF	±1%	CL31C681FBCNNN	
		33pF	±5%	CL31C330JBCNNN□			680pF	±2%	CL31C681GBCNNN	
		36pF	±5%	CL31C360JBCNNN□			680pF	±5%	CL31C681JBCNNN	
		38pF	±2%	CL31C380GBCNNN□			750pF	±5%	CL31C751JBCNNN	
		39pF	±2%	CL31C390GBCNNN□			820pF	±5%	CL31C821JBCNNN	
		39pF	±5%	CL31C390JBCNNN□			910pF	±5%	CL31C911JBCNNN	
		43pF	±2%	CL31C430GBCNNN□			1.0nF	±1%	CL31C102FBCNNN	
		43pF	±5%	CL31C430JBCNNN□			1.0nF	±2%	CL31C102GBCNNN	
		47pF	±5%	CL31C470JBCNNN□			1.0nF	±5%	CL31C102JBCNNN	
		47pF	±10%	CL31C470KBCNNN□			1.2nF	±2%	CL31C122GBCNNN	
		51pF	±5%	CL31C510JBCNNN□			1.2nF	±5%	CL31C122JBCNNN	
		56pF	±2%	CL31C560GBCNNN□			1.5nF	±2%	CL31C152GBCNNN	
		56pF	±5%	CL31C560JBCNNN□			1.5nF	±5%	CL31C152JBCNNN	
		62pF	±5%	CL31C620JBCNNN□			1.8nF	±2%	CL31C182GBCNNN	
		68pF	±2%	CL31C680GBCNNN□			1.8nF	±5%	CL31C182JBCNNN	
		68pF	±5%	CL31C680JBCNNN□			2.0nF	±5%	CL31C202JBCNNN	
		82pF	±5%	CL31C820JBCNNN□			2.2nF	±1%	CL31C222FBCNNN	
		91pF	±5%	CL31C910JBCNNN□			2.2nF	±2%	CL31C222GBCNNN	
		100pF	±2%	CL31C101GBCNNN□			2.2nF	±5%	CL31C222JBCNNN	
		100pF	±5%	CL31C101JBCNNN□	1.40mm	25Vdc	4.7nF	±2%	CL31C472GAFNNN	
		100pF	±10%	CL31C101KBCNNN□			8.2nF	±2%	CL31C822GAFNNN	
		110pF	±5%	CL31C111JBCNNN□			8.2nF	±5%	CL31C822JAFNNN	
		120pF	±5%	CL31C121JBCNNN□			10nF	±2%	CL31C103GAFNNN	
		130pF	±5%	CL31C131JBCNNN□			10nF	±5%	CL31C103JAFNNN	
		150pF	±5%	CL31C151JBCNNN		50Vdc	2.7nF	±5%	CL31C272JBFNNN	
		160pF	±5%	CL31C161JBCNNN			3.0nF	±5%	CL31C302JBFNNN	
		160pF	±10%	CL31C161KBCNNN]		3.3nF	±1%	CL31C332FBFNNN	
		180pF	±1%	CL31C181FBCNNN			3.3nF	±2%	CL31C332GBFNNN	
		180pF	±2%	CL31C181GBCNNN			3.3nF	±5%	CL31C332JBFNNN	
		180pF	±5%	CL31C181JBCNNN			3.3nF	±10%	CL31C332KBFNNN	

 $[\]mbox{\tt \@mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (COG)

■ Size: 3.20 X 1.60mm (inch: 1206)

Thickness Rated Capacitance Capacitance Part Number Max. Voltage Tolerance 1.40mm 50Vdc ±5% CL31C362JBFNNN□ 3.9nF ±5% CL31C392JBFNNN□ 4.7nF ±1% CL31C472FBFNNN□ 4.7nF ±2% CL31C472GBFNNN□ 4.7nF ±5% CL31C472JBFNNN□ 1.80mm 16Vdc 120nF ±5% CL31C124JOHNNN□ 25Vdc 6.8nF ±2% CL31C682GAHNNN□ 8.2nF ±5% CL31C822JAHNNN□ 10nF ±5% CL31C103JAHNNN□ 39nF ±5% CL31C393JAHNNN□ 47nF ±5% CL31C473JAHNNN□ 56nF ±5% CL31C563JAHNNN□ 68nF ±5% CL31C683JAHNNN□ 82nF ±5% CL31C823JAHNNN□ 100nF ±5% CL31C104JAHNNN□ 50Vdc 5.6nF ±5% CL31C562JBHNNN□ 6.8nF ±5% CL31C682JBHNNN□ 10nF ±2% CL31C103GBHNNN 15nF ±5% CL31C153JBHNNN ±5% CL31C183JBHNNN□ ±5% CL31C223JBHNNN□ 27nF ±5% CL31C273JBHNNN□ ±5% 33nF CL31C333JBHNNN□ ±5% 47nF CL31C473JBHNNN□

■ Size: 3.20 X 2.50mm (inch: 1210)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
1.45mm	25Vdc	10nF	±5%	CL32C103JAFNNN□
	50Vdc	1.0nF	±5%	CL32C102JBFNNN□
		1.2nF	±5%	CL32C122JBFNNN□
		1.5nF	±5%	CL32C152JBFNNN□
		1.8nF	±5%	CL32C182JBFNNN□
		2.7nF	±5%	CL32C272JBFNNN□
		3.9nF	±5%	CL32C392JBFNNN□
		4.7nF	±5%	CL32C472JBFNNN□
		5.6nF	±5%	CL32C562JBFNNN□
		6.8nF	±5%	CL32C682JBFNNN□
		8.2nF	±1%	CL32C822FBFNNN□
		8.2nF	±5%	CL32C822JBFNNN□
		10nF	±1%	CL32C103FBFNNN□
		10nF	±2%	CL32C103GBFNNN□
		10nF	±5%	CL32C103JBFNNN□
1.80mm	50Vdc	11nF	±5%	CL32C113JBHNNN□

Product Line Up (X5R)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.11mm	6.3Vdc	220nF	±20%	CL05A224MQLHEC	Derating Ref.	0.55mm	16Vdc	100nF	±5%	CL05A104J05NNN 🗆	
0.22mm	6.3Vdc	470nF	±20%	CL05A474MQXLNN□	Derating Ref.			100nF	±10%	CL05A104K05NNN□	
		1.0uF	±20%	CL05A105MQXLNN□	Derating Ref.			100nF	±20%	CL05A104M05NNN□	
0.33mm	4.0Vdc	2.2uF	±20%	CL05A225MR3LRN□	Derating Ref.			220nF	±10%	CL05A224K05NNN□	
	6.3Vdc	1.0uF	±20%	CL05A105MQ3LNN	Derating			470nF	±10%	CL05A474K05NNN□	Derating
		2.2uF	±20%	CL05A225MQ3LRN	Derating Ref.			1.0uF	±10%	CL05A105K05NNN□	Derating
).35mm	6.3Vdc	4.7uF	±20%	CL05A475MQ3LUN 🗆	Derating Ref.			4.2uF	±10%	CL05A425K05LUN 🗆	Derating Ref.
).55mm	4.0Vdc	100nF	±20%	CL05A104MR5NNN□			25Vdc	100nF	±10%	CL05A104KA5NNN 🗆	
		1.0uF	±20%	CL05A105MR5NNN	Derating			220nF	±10%	CL05A224KA5NNN 🗆	
		1.3uF	±10%	CL05A135KR5NNN 🗆	Derating			330nF	±10%	CL05A334KA5NNN 🗆	
		1.4uF	±10%	CL05A145KR5NNN 🗆	Derating			330nF	±20%	CL05A334MA5NNN 🗆	
		1.5uF	±10%	CL05A155KR5NNN 🗆	Derating			470nF	±10%	CL05A474KA5NNN 🗆	
		1.7uF	±10%	CL05A175KR5NNN□	Derating			1.0uF	±10%	CL05A105KA5NNN 🗆	Derating
		1.8uF	±10%	CL05A185KR5NNN□	Derating	0.57mm	4.0Vdc	2.2uF	±20%	CL05A225MR5NSN□	Derating Ref.
		2.2uF	±20%	CL05A225MR5NNN□	Derating Ref.		6.3Vdc	2.2uF	±10%	CL05A225KQ5NSN□	Ref.
		3.3uF	±20%	CL05A335MR5NNN	Derating Ref.		0.0 . 0.0	2.2uF	±20%	CL05A225MQ5NSN	Ref.
	6.3Vdc	100nF	±10%	CL05A104KQ5NNN			10Vdc	2.2uF	±10%	CL05A225KP5NSN	Derating Ref.
	0.5 v a c	100nF	±20%	CL05A104MQ5NNN			10146	2.2uF	±20%	CL05A225MP5NSN	Derating Ref.
		120nF	±10%	CL05A124KQ5NNN		0.60mm	4.0Vdc	4.7uF	±20%	CL05A475MR5NQN	Derating Ref.
		150nF	±10%	CL05A154KQ5NNND		0.00111111	6.3Vdc	4.7uF	±20%	CL05A475MQ5NQN	Derating Ref.
		220nF	±5%	CL05A224JQ5NNN D			16Vdc	2.2uF	±10%	CL05A225K05NQN	Derating Ref.
		220nF	±10%	CL05A224KQ5NNN D			Tovac	2.2uF	±20%	CL05A225MO5NQN CL05A225MO5NQN	Derating Ref.
		220nF	±20%				25Vdc	1uF	±10%	CL05A225MO5NQN D	Derating Ner.
		330nF	±10%	CL05A224MQ5NNN D			25700	1uF	±20%		Derating
				CL05A334KQ5NNN D		0.65mm	10//45			CL05A105MA5NQN	+
		330nF	±20%	CL05A334MQ5NNN D		0.00111111	4.0Vdc	10uF	±20%	CL05A106MR5NRN	Derating Ref.
		470nF	±10%	CL05A474KQ5NNN D			6.3Vdc	4.7uF	±10%	CL05A475KQ5NRN II	Derating Ref.
		680nF	±10%	CL05A684KQ5NNN I	Commission			4.7uF	±20%	CL05A475MQ5NRN II	Derating Ref.
		1.0uF	±5%	CL05A105JQ5NNN D	Derating			10uF	±20%	CL05A106MQ5NRN	Derating Ref.
		1.0uF	±10%	CL05A105KQ5NNN D	Derating		40) (13uF	±20%	CL05A136MQ5NRN	Derating Ref.
		1.0uF	±20%	CL05A105MQ5NNN	Derating		10Vdc	4.7uF	±10%	CL05A475KP5NRN	Derating Ref.
		2.2uF	±10%	CL05A225KQ5NNN	Derating Ref.			4.7uF	±20%	CL05A475MP5NRN	Derating Ref.
		2.2uF	±20%	CL05A225MQ5NNN□	Derating Ref.			10uF	±20%	CL05A106MP5NRN□	Derating Ref.
	10Vdc	10nF	±10%	CL05A103KP5NNN			35Vdc	1uF	±10%	CL05A105KL5NRN□	Derating
		47nF	±10%	CL05A473KP5NNN□		0.70mm	4.0Vdc	2.2uF	±20%	CL05A225MR5NUN□	Derating
		47nF	±20%	CL05A473MP5NNN□				10uF	±20%	CL05A106MR5NUN□	Derating Ref.
		68nF	±10%	CL05A683KP5NNN□			6.3Vdc	10uF	±20%	CL05A106MQ5NUN□	Derating Ref.
		82nF	±10%	CL05A823KP5NNN□				22uF	±20%	CL05A226MQ5QUN□	Derating
		100nF	±10%	CL05A104KP5NNN□			10Vdc	10uF	±20%	CL05A106MP5NUN□	Derating Ref.
		100nF	±20%	CL05A104MP5NNN□			16Vdc	4.7uF	±20%	CL05A475MO5NUN□	Derating Ref.
		150nF	±10%	CL05A154KP5NNN□			25Vdc	2.2uF	±10%	CL05A225KA5NUN□	Derating Ref.
		220nF	±10%	CL05A224KP5NNN□				2.2uF	±20%	CL05A225MA5NUN□	Derating Ref.
		220nF	±20%	CL05A224MP5NNN□		0.75mm	6.3Vdc	22uF	±20%	CL05A226MQ5N6J	Derating
		330nF	±10%	CL05A334KP5NNN□		0.80mm	6.3Vdc	22uF	±20%	CL05A226MQ6NUN□	Derating
		330nF	±20%	CL05A334MP5NNN□			10Vdc	10uF	±20%	CL05A106MP6NUN□	Derating Ref.
		470nF	±10%	CL05A474KP5NNN□		0.85mm	6.3Vdc	22uF	±20%	CL05A226MQ6N6J□	Derating
		1.0uF	±5%	CL05A105JP5NNN□		0.90mm	4.0Vdc	22uF	±20%	CL05A226MR5NZN□	Derating Ref.
		1.0uF	±10%	CL05A105KP5NNN□							
		1.0uF	±20%	CL05A105MP5NNN□							
		2.2uF	±10%	CL05A225KP5NNN□	Derating Ref.						
		2.2uF	±20%	CL05A225MP5NNN□	Derating Ref.						
	16Vdc	4.7nF	±10%	CL05A472K05NNN□							
		22nF	±10%	CL05A223K05NNN□							
		47nF	±10%	CL05A473K05NNN□							
		47 5	1 200/	CLOSA 472N 40 SNISS							

 $[\]times \square$ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

±20%

47nF

CL05A473M05NNN□

Product Line Up (X5R)

hickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.50mm	4.0Vdc	10uF	±20%	CL10A106MR5LQN□	Derating Ref.	0.90mm	16Vdc	1.0uF	±10%	CL10A105K08NNN□	
	6.3Vdc	2.2uF	±10%	CL10A225KQ5LNN□				1.0uF	±20%	CL10A105M08NNN□	
		4.7uF	±10%	CL10A475KQ5LNN 🗆				2.2uF	±10%	CL10A225K08NNN□	
		4.7uF	±20%	CL10A475MQ5LNN 🗆				4.7uF	±10%	CL10A475KO8NNN□	Derating
		10uF	±20%	CL10A106MQ5LRN□	Derating Ref.			4.7uF	±20%	CL10A475MO8NNN□	Derating
	10Vdc	1.0uF	±10%	CL10A105KP5LNN□			25Vdc	100nF	±10%	CL10A104KA8NNN□	
		2.2uF	±10%	CL10A225KP5LNN				220nF	±10%	CL10A224KA8NNN□	
		4.7uF	±10%	CL10A475KP5LNN□	Derating			220nF	±20%	CL10A224MA8NNN□	
		4.7uF	±20%	CL10A475MP5LNN□	Derating			330nF	±10%	CL10A334KA8NNN□	
	16Vdc	1.0uF	±10%	CL10A105K05LNN				470nF	±10%	CL10A474KA8NNN□	
		2.2uF	±10%	CL10A225K05LNN	Derating			1.0uF	±10%	CL10A105KA8NNN□	
	25Vdc	1.0uF	±10%	CL10A105KA5LNN 🗆	Derating			2.2uF	±10%	CL10A225KA8NNN□	Derating
		2.2uF	±10%	CL10A225KA5LNN 🗆	Derating		35Vdc	1.0uF	±10%	CL10A105KL8NNN□	
.60mm	6.3Vdc	4.7uF	±10%	CL10A475KQ5NNN□				2.2uF	±10%	CL10A225KL8NNN 🗆	Derating
		4.7uF	±20%	CL10A475MQ5NNN□			50Vdc	100nF	±10%	CL10A104KB8NNN□	
.80mm	6.3Vdc	22uF	±20%	CL10A226MQ7LUN□	Derating			220nF	±10%	CL10A224KB8NNN□	
	10Vdc	22uF	±20%	CL10A226MP7LUN□	Derating			470nF	±10%	CL10A474KB8NNN□	
	16Vdc	22uF	±20%	CL10A226M07JZN□	Derating			1.0uF	±10%	CL10A105KB8NNN□	
90mm	4.0Vdc	2.2uF	±20%	CL10A225MR8NNN□				2.2uF	±10%	CL10A225KB8NNN□	Derating
		4.7uF	±20%	CL10A475MR8NNN□	Derating	0.95mm	4.0Vdc	22uF	±20%	CL10A226MR8NQN□	Derating
		10uF	±10%	CL10A106KR8NNN□	Derating Ref.		6.3Vdc	4.7uF	±20%	CL10A475MQ8NQN□	
		10uF	±20%	CL10A106MR8NNN□	Derating Ref.			10uF	±20%	CL10A106MQ8NQN□	
6.3		22uF	±20%	CL10A226MR8NNN□	Derating		16Vdc	4.7uF	±10%	CL10A475KO8NQN□	Derating
	6.3Vdc	470nF	±10%	CL10A474KQ8NNN□				10uF	±10%	CL10A106K08NQN□	Derating (Re
		470nF	±20%	CL10A474MQ8NNN 🗆				10uF	±20%	CL10A106M08NQN□	Derating Re
		680nF	±10%	CL10A684KQ8NNN□			25Vdc	4.7uF	±10%	CL10A475KA8NQN□	Derating
		1.0uF	±10%	CL10A105KQ8NNN□				4.7uF	±20%	CL10A475MA8NQN□	Derating
		1.0uF	±20%	CL10A105MQ8NNN□		1.00mm	4.0Vdc	47uF	±20%	CL10A476MR8NRN□	Derating Re
		2.2uF	±10%	CL10A225KQ8NNN□			6.3Vdc	10uF	±20%	CL10A106MQ8NRN□	Re
		2.2uF	±20%	CL10A225MQ8NNN□				22uF	±10%	CL10A226KQ8NRN□	Derating
		3.3uF	±10%	CL10A335KQ8NNN□				22uF	±20%	CL10A226MQ8NRN□	Derating
		3.3uF	±20%	CL10A335MQ8NNN□				47uF	±20%	CL10A476MQ8QRN□	Derating
		4.7uF	±10%	CL10A475KQ8NNN□			10Vdc	22uF	±20%	CL10A226MP8NRN□	Derating
		4.7uF	±20%	CL10A475MQ8NNN□			25Vdc	10uF	±20%	CL10A106MA8NRN□	Derating Re
		10uF	±10%	CL10A106KQ8NNN□	Ref.		35Vdc	4.7uF	±10%	CL10A475KL8NRN□	Derating
		10uF	±20%	CL10A106MQ8NNN□	Ref.	1.05mm	6.3Vdc	22uF	±20%	CL10A226MQ8NUN□	Derating
		22uF	±20%	CL10A226MQ7NRN□	Ref.		10Vdc	22uF	±20%	CL10A226MP8NUN□	Derating
	10Vdc	220nF	±10%	CL10A224KP8NNN□		1.10mm	4.0Vdc	47uF	±20%	CL10A476MR8NZN□	Derating Re
		330nF	±10%	CL10A334KP8NNN□			6.3Vdc	47uF	±20%	CL10A476MQ8CZN□	Derating
		470nF	±10%	CL10A474KP8NNN□							
		680nF	±10%	CL10A684KP8NNN□							
		820nF	±10%	CL10A824KP8NNN□							
		1.0uF	±10%	CL10A105KP8NNN□							
		1.0uF	±20%	CL10A105MP8NNN□							
		2.2uF	±10%	CL10A225KP8NNN□							
		2.2uF	±20%	CL10A225MP8NNN							
		3.3uF	±10%	CL10A335KP8NNN□							
			±10% ±20%	CL10A335KP8NNN CL10A335MP8NNN							
		3.3uF 3.3uF 4.7uF	±10% ±20% ±10%	CL10A335KP8NNN CL10A335MP8NNN CL10A475KP8NNN							

±10%

±20%

±10%

±10%

10uF

10uF

330nF

470nF

16Vdc

CL10A106KP8NNN□ Derating Ref.

CL10A334K08NNN□ CL10A474K08NNN 🗆

 $[\]mbox{\tt \#} \square$ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (X5R)

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.70mm	10Vdc	2.2uF	±10%	CL21A225KP6LNN□		1.35mm	6.3Vdc	2.2uF	±20%	CL21A225MQFNNN□	
	16Vdc	1.0uF	±20%	CL21A105MO6LNN□				3.3uF	±10%	CL21A335KQFNNN□	
		2.2uF	±10%	CL21A225KO6LNN□				3.3uF	±20%	CL21A335MQFNNN□	
0.80mm	6.3Vdc	10uF	±10%	CL21A106KQ7LQN□				4.7uF	±10%	CL21A475KQFNNN□	
		47uF	±20%	CL21A476MQ7FRN□	Derating			4.7uF	±20%	CL21A475MQFNNN□	
		47uF	±20%	CL21A476MQ7LRN□	Derating			6.8uF	±10%	CL21A685KQFNNN□	
	10Vdc	10uF	±10%	CL21A106KP7LQN□	Derating			10uF	±10%	CL21A106KQFNNN□	
0.90mm	6.3Vdc	47uF	±20%	CL21A476MQ8LRN□	Derating			10uF	±20%	CL21A106MQFNNN□	
0.95mm	4.0Vdc	22uF	±20%	CL21A226MRCLRN□	Derating			22uF	±20%	CL21A226MQFNNN□	
		47uF	±20%	CL21A476MRCLRP	Derating		10Vdc	1.0uF	±10%	CL21A105KPFNNN□	
	6.3Vdc	1.0uF	±10%	CL21A105KQCLNN				2.2uF	±10%	CL21A225KPFNNN□	
		1.0uF	±10%	CL21A105KQCNNN				2.2uF	±20%	CL21A225MPFNNN□	
		4.7uF	±10%	CL21A475KQCLNN				3.3uF	±10%	CL21A335KPFNNN□	
		4.7uF	±20%	CL21A475MQCLNN				4.7uF	±10%	CL21A475KPFNNN□	
		10uF	±10%	CL21A106KQCLNN				4.7uF	±20%	CL21A475MPFNNN□	
		10uF	±10%	CL21A106KQCLRN□				10uF	±10%	CL21A106KPFNNN□	
		10uF	±20%	CL21A106MQCLNN□				10uF	±20%	CL21A106MPFNNN□	
		22uF	±10%	CL21A226KQCLRN□	Derating		16Vdc	680nF	±10%	CL21A684K0FNNN□	
		22uF	±20%	CL21A226MQCLQN□	Derating			1.0uF	±10%	CL21A105KOFNNN□	
		22uF	±20%	CL21A226MQCLRN□	Derating			2.2uF	±10%	CL21A225KOFNNN□	
		47uF	±20%	CL21A476MQCLRN□	Derating			2.2uF	±20%	CL21A225MOFNNN□	
	10Vdc	2.2uF	±10%	CL21A225KPCLNN□				3.3uF	±10%	CL21A335KOFNNN□	
		4.7uF	±10%	CL21A475KPCLNN□				4.7uF	±10%	CL21A475K0FNNN□	
		4.7uF	±20%	CL21A475MPCLNN□				10uF	±10%	CL21A106K0FNNN□	Derating
		10uF	±10%	CL21A106KPCLNN	Derating		25Vdc	470nF	±20%	CL21A474MAFNNN□	
		10uF	±10%	CL21A106KPCLQN□	Derating			1.0uF	±10%	CL21A105KAFNNN□	
		10uF	±20%	CL21A106MPCLNN□	Derating			2.2uF	±10%	CL21A225KAFNNN□	
		10uF	±20%	CL21A106MPCLQN□	Derating		50Vdc	1.0uF	±10%	CL21A105KBFNNN□	Derating
		22uF	±10%	CL21A226KPCLRN□	Derating			2.2uF	±10%	CL21A225KBFNNN□	Derating
		22uF	±20%	CL21A226MPCLRN□	Derating	1.40mm	4.0Vdc	22uF	±20%	CL21A226MRQNNN□	
		22uF	+80/-20%	CL21A226ZPCLRN□	Derating			47uF	±20%	CL21A476MRQNNN□	Derating
	16Vdc	2.2uF	±10%	CL21A225KOCLNN			6.3Vdc	4.7uF	±10%	CL21A475KQQNNN□	Derating
		4.7uF	±10%	CL21A475KOCLNN				10uF	±10%	CL21A106KQQNNN□	Derating
		4.7uF	±10%	CL21A475KOCLRN□				22uF	±10%	CL21A226KQQNNN□	
		10uF	±10%	CL21A106KOCLNN□	Derating			22uF	±20%	CL21A226MQQNNN□	
		10uF	±10%	CL21A106KOCLRN□	Derating		10Vdc	22uF	±20%	CL21A226MPQNNN□	
		10uF	±10%	CL21A106KOCLSN□	Derating		16Vdc	10uF	±10%	CL21A106KOQNNN□	Derating
		22uF	±20%	CL21A226MOCLRN□	Derating			22uF	±10%	CL21A226KOQNNN□	Derating
	25Vdc	1.0uF	±10%	CL21A105KACLNN				22uF	±20%	CL21A226MOQNNN□	Derating
		1.0uF	±10%	CL21A105KACNNN			25Vdc	4.7uF	±10%	CL21A475KAQNNN	Derating
		2.2uF	±10%	CL21A225KACLNN	Derating			4.7uF	±20%	CL21A475MAQNNN	Derating
		4.7uF	±10%	CL21A475KACLRN CL21A406KACLRN CL21A4	Derating			22uF	±20%	CL21A226MAQNNN	Derating
		10uF	±10%	CL21A106KACLRN	Derating		50Vdc	2.2uF	±10%	CL21A225KBQNNN	Derating
	35Vdc	4.7uF	±10%	CL21A475KLCLQN II	Derating	1.45	401/1	4.7uF	±10%	CL21A475KBQNNN CL21A475KBQNNN	Derating
	50Vdc	1.0uF	±10%	CL21A105KBCFNN D		1.45mm	4.0Vdc	47uF	±20%	CL21A476MRYNNN	
1.00	C 21/ 1	1.0uF	±10%	CL21A105KBCLNN			6.3Vdc	47uF	±10%	CL21A476KQYNNN I	Derating
1.00mm	6.3Vdc	33uF	±20%	CL21A336MQ9LRN CL21A436MQ9LRN CL21A436MQ9LRN CL21A336MQ9LRN CL21A436MQ9LRN CL21A4476MQ9LRN CL2A4476MQ9LRN CL2A4476MQ9LRN CL2A4476MQ9LRN CL2A4476MQ9LRN	Derating		25.7.1	47uF	±20%	CL21A476MQYNNN	Derating
	FOV.	47uF	±20%	CL21A476MQ9LRN	Derating		25Vdc	10uF	±10%	CL21A106KAYNNN	Derating
4.20	50Vdc	2.2uF	±10%	CL21A225KB9LNN	Derating						
1.20mm	6.3Vdc	33uF	±20%	CL21A336MQELRN CL21A336KRENNAR	Derating						
4.25	10Vdc	2.2uF	±10%	CL21A225KPENNN CL2A225KPENNN CL2A							
1.25mm	6.3Vdc	47uF	±20%	CL21A476MQMNRN	Derating						
1.35mm	4.0Vdc	10uF	±20%	CL21A106MRFNNN□							

^{±10%} CL21A225KQFNNN□ * ☐ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

2.2uF

Product Line Up (X5R)

■ Size: 3.20 X 1.60mm (inch: 1206)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.95mm	6.3Vdc	10uF	±20%	CL31A106MQCLNN□		1.80mm	16Vdc	22uF	±20%	CL31A226MOHNNN□	Derating
		22uF	±10%	CL31A226KQCLNN□	Derating		25Vdc	2.2uF	±10%	CL31A225KAHNNN□	
		22uF	±20%	CL31A226MQCLNN□	Derating			3.3uF	±10%	CL31A335KAHNNN□	
	10Vdc	10uF	±10%	CL31A106KPCLNN□				4.7uF	±10%	CL31A475KAHNNN□	
		10uF	±20%	CL31A106MPCLNN□				10uF	±10%	CL31A106KAHNNN□	
	16Vdc	2.2uF	±10%	CL31A225KOCLNN□				10uF	±20%	CL31A106MAHNNN□	
		4.7uF	±10%	CL31A475KOCLNN□				22uF	±10%	CL31A226KAHNNN□	Derating
		4.7uF	±20%	CL31A475MOCLNN□				22uF	±20%	CL31A226MAHNNN□	Derating
		10uF	±10%	CL31A106KOCLNN□			35Vdc	2.2uF	±10%	CL31A225KLHNNN□	
		22uF	±10%	CL31A226KOCLNN□	Derating		50Vdc	2.2uF	±10%	CL31A225KBHNNN□	
		22uF	±20%	CL31A226MOCLNN□	Derating			4.7uF	±10%	CL31A475KBHNNN□	
	25Vdc	4.7uF	±10%	CL31A475KACLNN□				10uF	±10%	CL31A106KBHNNN□	
		10uF	±10%	CL31A106KACLNN	Derating			10uF	±20%	CL31A106MBHNNN□	
1.00mm	35Vdc	4.7uF	±10%	CL31A475KL9LNN 🗆	Derating		'				
	50Vdc	1.0uF	±10%	CL31A105KB9LNN□		■ Size : 3	3.20 X 2.5	0mm (inch :	1210)		
		2.2uF	±10%	CL31A225KB9LNN□							
		4.7uF	±10%	CL31A475KB9LNN 🗆	Derating	Thickness	Rated	Capacitance	Capacitance	Part Number	Remark
	100Vdc	2.2uF	±10%	CL31A225KC9LNN	Derating	Max.	Voltage	·	Tolerance		
1.20mm	16Vdc	4.7uF	±10%	CL31A475KOELNN 🗆		0.95mm	16Vdc	10uF	±10%	CL32A106KOCLNN□	
1.25mm	10Vdc	10uF	±10%	CL31A106KPPLNN□				22uF	±20%	CL32A226MOCLNN□	Derating
		10uF	±20%	CL31A106MPPLNN		1.00mm	25Vdc	10uF	±10%	CL32A106KA9LNN□	
	16Vdc	4.7uF	±10%	CL31A475KOPLNN 🗆		1.25mm	16Vdc	10uF	±10%	CL32A106KOMLNN□	
		4.7uF	±20%	CL31A475MOPLNN		1.50mm	10Vdc	22uF	±10%	CL32A226KPSLNN□	
	25Vdc	1.0uF	±10%	CL31A105KAPLNN				22uF	±20%	CL32A226MPSLNN□	
		2.2uF	±10%	CL31A225KAPLNN			25Vdc	6.8uF	±10%	CL32A685KASLNN□	
		4.7uF	±10%	CL31A475KAPLNN		1.70mm	16Vdc	22uF	±10%	CL32A226KOTFNN□	Derating
1.70mm	50Vdc	2.2uF	±10%	CL31A225KBTLNN				22uF	±20%	CL32A226MOTLNN□	Derating
1.80mm	6.3Vdc	3.3uF	±10%	CL31A335KQHNNN			25Vdc	10uF	±10%	CL32A106KATLNN□	
1.0011111	0.5 v a c	10uF	±10%	CL31A106KQHNNN			25740	10uF	±20%	CL32A106MATLNN□	
		10uF	±20%	CL31A106MQHNNN		2.00mm	25Vdc	4.7uF	±10%	CL32A475KAULNN 🗆	
		15uF	±10%	CL31A156KQHNNN		2.0011111	25740	10uF	±10%	CL32A106KAULNN	
		15uF	±20%	CL31A156MQHNNN			35Vdc	4.7uF	±10%	CL32A475KLULNN	
		22uF	±10%	CL31A226KQHNNN			33746	10uF	±10%	CL32A106KLULNN	
		22uF	±20%	CL31A226MQHNNN				10uF	±20%	CL32A106MLULNN	
		33uF	±20%	CL31A336MQHNNN		2.20mm	10Vdc	10uF	±10%	CL32A106KPINNN	
		47uF	±10%	CL31A476KQHNNN			16Vdc	10uF	±10%	CL32A106KOILNN	
		47uF	±20%	CL31A476MQHNNN			25Vdc	2.2uF	±20%	CL32A225MAINNN	
		100uF	±20%	CL31A107MQHNNND	Derating		25740	4.7uF	±10%	CL32A475KAINNN	
	10Vdc	3.3uF	±10%	CL31A335KPHNNN				10uF	±10%	CL32A106KAILNN	
	Tovac	4.7uF	±10%	CL31A475KPHNNN D				10uF	±20%	CL32A106MAILNN	
		10uF	±10%	CL31A106KPHNNN D		2.70mm	6.3Vdc	22uF	±10%	CL32A226KQJNNN	
		10uF	±20%	CL31A106MPHNNN		2.7011111	0.5740	22uF	±20%	CL32A226MQJNNN	
		22uF	±10%	CL31A226KPHNNN				33uF	±20%	CL32A336MQJNNN	
		22uF	±20%	CL31A226MPHNNN				47uF	±10%	CL32A476KQJNNN	
		47uF	±20%		Doration			47uF	±20%	CL32A476MQJNNN	
		100uF	±20%	CL31A476MPHNNN CL31A107MPHNNN	Derating		10)/4-	22uF	±10%	CL32A476WQJNNN D	
	16Vdc	2.2uF	±10%		Derating		10Vdc	22uF	±20%	CL32A226MPJNNN	Duration
	TOVAL			CL31A225KOHNNN				47uF		CL32A226MPJNNN D	Derating
		3.3uF	±10%	CL31A335KOHNNN				47uF 47uF	±10%		Derating
		3.3uF	±20%	CL31A335MOHNNN			1011-	10uF	±20%	CL32A476MPJNNN CL32A106KOJNNN	
		4.7uF	±10%	CL31A475KOHNNN			16Vdc		±10%	CL32A106KOJNNN II	
		4.7uF	±20%	CL31A475MOHNNN				10uF	±20% ±10%	CL32A106MOJNNN CL32A226KOJNNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJNN CL32A226KOJN CL3A2A226KOJN	
		10uF	±10%	CL31A106KOHNNN				22uF		CL32A226KOJNNN CL32A226MOJNNN	
		10uF	±20%	CL31A106MOHNNN				22uF	±20%	CL32A226MOJNNN CL32A47CKOJNNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJNN CL32A47CKOJN CL3A47CKOJN CL3A47CKOJN CL3A47CKOJN CL3A47CKOJN CL3A47CKOJN CL3A47CKOJN	
		22uF	±10%	CL31A226KOHNNN□	Derating			47uF	±10%	CL32A476KOJNNN□	

^{*} □ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (X5R)

■ Size: 3.20 X 2.50mm (inch: 1210)

Size	: 4	50	Х	3.20)mm	(inch	:	1812)

	,							•	,		
Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
2.70mm	16Vdc	47uF	±20%	CL32A476MOJNNN□		2.70mm	6.3Vdc	33uF	±20%	CL43A336MQJNNN□	
	25Vdc	10uF	±10%	CL32A106KAJNNN□				47uF	±10%	CL43A476KQJNNN□	
		10uF	±20%	CL32A106MAJNNN□				47uF	±20%	CL43A476MQJNNN□	
		22uF	±10%	CL32A226KAJNNN□		3.50mm	6.3Vdc	100uF	±20%	CL43A107MQLNNN□	
		22uF	±20%	CL32A226MAJNNN□							
	35Vdc	10uF	±10%	CL32A106KLJNNN□		■ Size : 5	5.70 X 5.0	0mm (inch :	2220)		
	50Vdc	2.2uF	±10%	CL32A225KBJNNN□							
		10uF	±10%	CL32A106KBJNNN□		Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
		10uF	±20%	CL32A106MBJNNN□		IVIAX.	voitage		Tolerance		
2.80mm	6.3Vdc	100uF	±20%	CL32A107MQVNNN□	Derating	2.70mm	6.3Vdc	47uF	±20%	CL55A476MQJNNN□	
		150uF	±20%	CL32A157MQVNNN□	Derating			68uF	±20%	CL55A686MQJNNN□	
		220uF	±20%	CL32A227MQVNNN□	Derating			100uF	±20%	CL55A107MQJNNN□	
	10Vdc	100uF	±20%	CL32A107MPVNNN□	Derating		10Vdc	47uF	±10%	CL55A476KPJNNN□	

 $[\]mbox{\tt \@mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (X6S)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.33mm	6.3Vdc	1.0uF	±20%	CL05X105MQ3LNN□	Derating
0.55mm	4.0Vdc	2.2nF	±20%	CL05X222MR5NNN□	
		15nF	±20%	CL05X153MR5NNN□	
		47nF	±20%	CL05X473MR5NNN□	
		220nF	±20%	CL05X224MR5NNN□	
		2.2uF	±20%	CL05X225MR5NNN□	Derating
	6.3Vdc	680nF	±5%	CL05X684JQ5NNN□	
		1.0uF	±10%	CL05X105KQ5NNN□	Derating
	10Vdc	1.0uF	±10%	CL05X105KP5NNN□	Derating
0.57mm	2.5Vdc	2.2uF	±20%	CL05X225MS5NSN□	Derating Ref.
0.60mm	25Vdc	1.0uF	±10%	CL05X105KA5NQN□	Derating
0.70mm	4.0Vdc	4.7uF	±20%	CL05X475MR5NUN□	Derating Ref.
		10uF	±20%	CL05X106MR5NUN□	Derating Ref.

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.90mm	4.0Vdc	1.0uF	±20%	CL10X105MR8NNN□	
		4.7uF	±20%	CL10X475MR8NNN□	Derating
		10uF	±10%	CL10X106KR8NNN□	Derating Ref.
		10uF	±20%	CL10X106MR8NNN□	Derating Ref.
	6.3Vdc	1.0uF	±20%	CL10X105MQ8NNN□	
		2.2uF	±10%	CL10X225KQ8NNN□	
		2.2uF	±20%	CL10X225MQ8NNN□	
		4.7uF	±10%	CL10X475KQ8NNN□	Derating
		4.7uF	±20%	CL10X475MQ8NNN□	Derating
		10uF	±10%	CL10X106KQ8NNN□	Derating Ref.
		10uF	±20%	CL10X106MQ8NNN□	Derating Ref.
	10Vdc	2.2uF	±10%	CL10X225KP8NNN□	
	25Vdc	1.0uF	±10%	CL10X105KA8NNN□	
0.95mm	25Vdc	4.7uF	±10%	CL10X475KA8NQN□	Derating
1.00mm	10Vdc	10uF	±20%	CL10X106MP8NRN□	Derating Ref.
	16Vdc	4.7uF	±10%	CL10X475K08NRN□	Derating
		10uF	±20%	CL10X106MO8NRN□	Derating Ref.

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.95mm	2.5Vdc	22uF	±20%	CL21X226MSCLRN□	Derating
	4.0Vdc	10uF	±10%	CL21X106KRCLRN□	Derating
	10Vdc	10uF	±10%	CL21X106KPCLRN□	Derating
1.35mm	4.0Vdc	4.7uF	±10%	CL21X475KRFNNN□	
		10uF	±10%	CL21X106KRFNNN□	
		10uF	±20%	CL21X106MRFNNN□	
	16Vdc	2.2uF	±10%	CL21X225K0FNNN□	
1.40mm	4.0Vdc	22uF	±20%	CL21X226MRQNNN□	Derating
	6.3Vdc	10uF	±10%	CL21X106KQQNNN□	Derating
		22uF	±20%	CL21X226MQQNNN□	Derating
	16Vdc	10uF	±10%	CL21X106KOQNNN□	
		10uF	±20%	CL21X106MOQNNN□	
	25Vdc	4.7uF	±10%	CL21X475KAQNNN□	Derating
		4.7uF	±20%	CL21X475MAQNNN□	Derating
1.45mm	2.5Vdc	47uF	±20%	CL21X476MSYNNN□	Derating
	4.0Vdc	47uF	±20%	CL21X476MRYNNN□	Derating
	10Vdc	10uF	±10%	CL21X106KPYNNN□	
	25Vdc	10uF	±10%	CL21X106KAYNNN□	Derating
		10uF	±20%	CL21X106MAYNNN□	Derating

■ Size: 3.20 X 1.60mm (inch: 1206)

■ 3i2e · 3	■ 312e : 3.20 × 1.0011111 (ITC11 : 1200)											
Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark							
0.95mm	25Vdc	4.7uF	±10%	CL31X475KACLNN□								
1.80mm	4.0Vdc	10uF	±10%	CL31X106KRHNNN□								
		10uF	±20%	CL31X106MRHNNN□								
		22uF	±10%	CL31X226KRHNNN□								
		22uF	±20%	CL31X226MRHNNN□								
		47uF	±20%	CL31X476MRHNNN□	Derating							
	6.3Vdc	10uF	±10%	CL31X106KQHNNN□								
		10uF	±20%	CL31X106MQHNNN□								
		22uF	±10%	CL31X226KQHNNN□								
		47uF	±10%	CL31X476KQHNNN□	Derating							
		47uF	±20%	CL31X476MQHNNN□	Derating							
	16Vdc	22uF	±10%	CL31X226KOHNNN□	Derating							
	25Vdc	10uF	±10%	CL31X106KAHNNN□								

■ Size: 3.20 X 2.50mm (inch: 1210)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
2.70mm	6.3Vdc	22uF	±20%	CL32X226MQJNNN□	
	10Vdc	47uF	±10%	CL32X476KPJNNN□	
	16Vdc	10uF	±10%	CL32X106KOJNNN□	
2.80mm	4.0Vdc	100uF	±10%	CL32X107KRVNNN□	
	6.3Vdc	100uF	±20%	CL32X107MQVNNN□	

Product Line Up (X7R)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	
0.33mm	16Vdc	100nF	±10%	CL05B104K03LNN□		0.55mm	16Vdc	47nF	±20%	CL05B473M05NNN□		
0.55mm	6.3Vdc	68nF	±10%	CL05B683KQ5NNN□				56nF	±10%	CL05B563KO5NNN□		
		100nF	±10%	CL05B104KQ5NNN□				68nF	±10%	CL05B683K05NNN□		
		470nF	±10%	CL05B474KQ5NNN□	Ref.			82nF	±10%	CL05B823K05NNN□		
	10Vdc	1.0nF	±10%	CL05B102KP5NNN□				100nF	±5%	CL05B104J05NNN□		
		2.2nF	±20%	CL05B222MP5NNN□				100nF	±10%	CL05B104K05NNN□		
		6.8nF	±20%	CL05B682MP5NNN□				100nF	±20%	CL05B104M05NNN□		
		10nF	±10%	CL05B103KP5NNN□				150nF	±10%	CL05B154K05NNN□		
		15nF	±20%	CL05B153MP5NNN□				220nF	±10%	CL05B224K05NNN□	Ref.	
		18nF	±10%	CL05B183KP5NNN□			25Vdc	220pF	±10%	CL05B221KA5NNN□		
		22nF	±10%	CL05B223KP5NNN□				270pF	±10%	CL05B271KA5NNN□		
		27nF	±10%	CL05B273KP5NNN□				330pF	±10%	CL05B331KA5NNN□		
		33nF	±10%	CL05B333KP5NNN□				470pF	±10%	CL05B471KA5NNN□		
		47nF	±10%	CL05B473KP5NNN□				560pF	±10%	CL05B561KA5NNN□		
		47nF	±20%	CL05B473MP5NNN□				1.0nF	±10%	CL05B102KA5NNN		
		56nF	±10%	CL05B563KP5NNN				1.5nF	±10%	CL05B152KA5NNN		
		68nF	±10%	CL05B683KP5NNN				1.8nF	±10%	CL05B182KA5NNN		
		82nF	±10%	CL05B823KP5NNN				2.2nF	±10%	CL05B222KA5NNN		
		100nF	±5%	CL05B104JP5NNN				2.2nF	±20%	CL05B222MA5NNN		
		100nF	±10%	CL05B104KP5NNN				3.3nF	±5%	CL05B332JA5NNN		
		100nF	±20%	CL05B104KF5NNN D				3.3nF				
					D.C				±10%	CLOSB332KA5NNN I		
		220nF	±10%	CLOSB224KP5NNN D	Ref.			3.9nF	±10%	CL05B392KA5NNN CL05B473LA5NNN		
		470nF	±10%	CL05B474KP5NNN CL05B234K05NNN				4.7nF	±5%	CL05B472JA5NNN CL05B472JKA5NNN		
	16Vdc	220pF	±10%	CL05B221K05NNN				4.7nF	±10%	CL05B472KA5NNN		
		330pF	±10%	CL05B331K05NNN				5.6nF	±10%	CL05B562KA5NNN		
		820pF	±10%	CL05B821K05NNN□				6.8nF	±10%	CL05B682KA5NNN□		
		1.0nF	±10%	CL05B102K05NNN□				8.2nF	±10%	CL05B822KA5NNN□		
		2.2nF	±10%	CL05B222K05NNN□				10nF	±5%	CL05B103JA5NNN□		
		2.7nF	±10%	CL05B272K05NNN□				10nF	±10%	CL05B103KA5NNN□		
		3.9nF	±10%	CL05B392K05NNN□				10nF	±20%	CL05B103MA5NNN□		
		4.7nF	±10%	CL05B472KO5NNN□				12nF	±10%	CL05B123KA5NNN□		
		4.7nF	±20%	CL05B472MO5NNN□				15nF	±10%	CL05B153KA5NNN		
		5.6nF	±10%	CL05B562KO5NNN□				18nF	±10%	CL05B183KA5NNN□		
		6.8nF	±10%	CL05B682K05NNN□				22nF	±10%	CL05B223KA5NNN□		
		8.2nF	±10%	CL05B822KO5NNN□				33nF	±10%	CL05B333KA5NNN□		
		10nF	±5%	CL05B103J05NNN□				47nF	±10%	CL05B473KA5NNN□		
		10nF	±10%	CL05B103KO5NNN□				100nF	±10%	CL05B104KA5NNN□		
		10nF	±20%	CL05B103M05NNN□			50Vdc	12pF	±5%	CL05B120JB5NNN□		
		12nF	±10%	CL05B123K05NNN□				47pF	±5%	CL05B470JB5NNN□		
		15nF	±5%	CL05B153J05NNN 🗆				100pF	±10%	CL05B101KB5NNN□		
		15nF	±10%	CL05B153K05NNN□				120pF	±10%	CL05B121KB5NNN□		
		18nF	±5%	CL05B183J05NNN 🗆				150pF	±10%	CL05B151KB5NNN		
		18nF	±10%	CL05B183K05NNN				180pF	±10%	CL05B181KB5NNN□		
		22nF	±5%	CL05B223J05NNN□				200pF	±10%	CL05B201KB5NNN□		
		22nF	±10%	CL05B223K05NNN□				220pF	±5%	CL05B221JB5NNN□		
		22nF	±20%	CL05B223M05NNN□				220pF	±10%	CL05B221KB5NNN□		
		27nF	±5%	CL05B273J05NNN				240pF	±10%	CL05B241KB5NNN		
		27nF	±10%	CL05B273K05NNN				270pF	±5%	CL05B271JB5NNN		
		33nF	±5%	CL05B333J05NNN				270pF	±10%	CL05B271KB5NNN		
		33nF	±10%	CL05B333NO5NNN CL05B333KO5NNN				300pF	±10%	CL05B301KB5NNN		
		33nF	±20%	CL05B333M05NNN CL05B333M05NNN					320pF	±10%	CLOSB321KB5NNND	
		39nF	±10%	CL05B393K05NNN					330pF	±5%	CL05B331JB5NNN II	
		47nF	±5%	CL05B473J05NNN CL05B473J05NNN				330pF	±10%	CL05B331KB5NNN CL05B364KB5NNN		
		47nF	±10%	CL05B473K05NNN□				360pF	±10%	CL05B361KB5NNN□		

Product Line Up (X7R)

■ Size: 1.00 X 0.50mm (inch: 0402)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	
0.55mm	50Vdc	390pF	±5%	CL05B391JB5NNN□		0.90mm	10Vdc	100nF	±10%	CL10B104KP8NNN□		
		390pF	±10%	CL05B391KB5NNN□				150nF	±10%	CL10B154KP8NNN□		
		470pF	±5%	CL05B471JB5NNN□				220nF	±5%	CL10B224JP8NNN□		
		470pF	±10%	CL05B471KB5NNN□				220nF	±10%	CL10B224KP8NNN□		
		510pF	±10%	CL05B511KB5NNN□				330nF	±10%	CL10B334KP8NNN□		
		560pF	±5%	CL05B561JB5NNN 🗆				470nF	±10%	CL10B474KP8NNN□		
		560pF	±10%	CL05B561KB5NNN□				1.0uF	±10%	CL10B105KP8NNN□		
		620pF	±10%	CL05B621KB5NNN□				2.2uF	±10%	CL10B225KP8NNN□	Ref.	
		680pF	±5%	CL05B681JB5NNN□			16Vdc	470pF	±10%	CL10B471K08NNN□		
		680pF	±10%	CL05B681KB5NNN□				820pF	±10%	CL10B821K08NNN□		
		750pF	±10%	CL05B751KB5NNN□				1.0nF	±10%	CL10B102K08NNN□		
		820pF	±10%	CL05B821KB5NNN□				2.2nF	±10%	CL10B222K08NNN□		
		1.0nF	±5%	CL05B102JB5NNN□				3.3nF	±10%	CL10B332K08NNN□		
		1.0nF	±10%	CL05B102KB5NNN□				3.9nF	±10%	CL10B392K08NNN□		
		1.2nF	±5%	CL05B122JB5NNN				10nF	±10%	CL10B103K08NNN□		
		1.2nF	±10%	CL05B122KB5NNN				15nF	±10%	CL10B153K08NNN		
		1.5nF	±5%	CL05B152JB5NNN				16nF	±10%	CL10B163K08NNN		
		1.5nF	±10%	CL05B152KB5NNN				18nF	±10%	CL10B183K08NNN		
		1.8nF	±10%	CL05B182KB5NNN				22nF	±10%	CL10B223K08NNN		
		2.0nF	±10%	CL05B202KB5NNN				27nF	±10%	CL10B273K08NNN		
		2.2nF	±5%	CL05B222JB5NNN				33nF	±10%	CL10B333K08NNN		
		2.2nF	±10%	CL05B222KB5NNN				39nF	±10%	CL10B393K08NNN		
		2.2nF	±20%	CL05B222KB5NNN CL05B222MB5NNN					47nF	±10%	CL10B393K08NNN CL10B473K08NNN	
		2.4nF	±10%	CL05B242KB5NNN				56nF	±10%	CL10B563K08NNN		
		2.4111 2.7nF	±10%	CL05B272KB5NNN CL05B272KB5NNN				68nF	±10%	CL10B303K08NNN CL10B683K08NNN		
		3.0nF	±10%	CL05B302KB5NNN				68nF	±20%	CL10B683M08NNN		
		3.3nF	±5%	CL05B332JB5NNN				75nF	±10%	CL10B083W08NNN II		
		3.3nF	±10%	CL05B332KB5NNN CL05B332KB5NNN				82nF	±10% ±10%	CL10B733K08NNN CL10B823K08NNN		
		3.9nF	±5%					100nF	±5%			
		3.9nF	±10%	CLOSB392JB5NNN				100nF	±10%	CL10B104J08NNN II		
				CLOSB392KB5NNN						CL10B104K08NNN II		
		4.7nF	±5%	CL05B472JB5NNN CL05B472JKB5NNN				100nF	±20%	CL10B104M08NNN		
		4.7nF	±10%	CL05B472KB5NNN				120nF	±10%	CL10B124K08NNN II		
		4.7nF	±20%	CL05B472MB5NNN				150nF	±10%	CL10B154K08NNN II		
		5.6nF	±10%	CL05B562KB5NNN II				180nF	±10%	CL10B184K08NNN		
		6.8nF	±5%	CL05B682JB5NNN CL05B682JB5NNN				220nF	±5%	CL10B224J08NNN II		
		6.8nF	±10%	CL05B682KB5NNN				220nF	±10%	CL10B224K08NNN		
		8.2nF	±10%	CL05B822KB5NNN				220nF	±20%	CL10B224M08NNN		
		10nF	±5%	CL05B103JB5NNN				330nF	±10%	CL10B334K08NNN		
		10nF	±10%	CL05B103KB5NNN□				470nF	±10%	CL10B474K08NNN □		
		10nF	±20%	CL05B103MB5NNN□				470nF	±20%	CL10B474M08NNN		
		15nF	±10%	CL05B153KB5NNN□				680nF	±10%	CL10B684K08NNN□		
		22nF	±10%	CL05B223KB5NNN□				1.0uF	±10%	CL10B105K08NNN□		
■ Sizo · 1	60 V 0 9	30mm (inch :	0603)				25Vdc	220pF	±10%	CL10B221KA8NNN□		
- 312e · 1	.00 \ 0.0	onnin (inch .	0003)					390pF	±10%	CL10B391KA8NNN□		
Thickness	Rated		Capacitance					470pF	±10%	CL10B471KA8NNN□		
Max.	Voltage	Capacitance	Tolerance	Part Number	Remark			1.0nF	±5%	CL10B102JA8NNN□		
								1.0nF	±10%	CL10B102KA8NNN□		
0.90mm	6.3Vdc	4.7nF	±10%	CL10B472KQ8NNN□				2.2nF	±10%	CL10B222KA8NNN□		
		470nF	±10%	CL10B474KQ8NNN□				4.7nF	±10%	CL10B472KA8NNN□		
		680nF	±10%	CL10B684KQ8NNN□				5.6nF	±10%	CL10B562KA8NNN□		
		820nF	±10%	CL10B824KQ8NNN□				6.8nF	±10%	CL10B682KA8NNN□		
		1.0uF	+10%	CL10B105K08NNNII				8.2nF	+10%	CL 10D022K V ONININI II		

8.2nF

10nF

12nF

±10%

±10%

±10%

CL10B822KA8NNN□

CL10B103KA8NNN□ CL10B123KA8NNN□

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.90mm	6.3Vdc	4.7nF	±10%	CL10B472KQ8NNN□	
		470nF	±10%	CL10B474KQ8NNN□	
		680nF	±10%	CL10B684KQ8NNN□	
		820nF	±10%	CL10B824KQ8NNN□	
		1.0uF	±10%	CL10B105KQ8NNN□	
		1.0uF	±20%	CL10B105MQ8NNN□	
		2.2uF	±10%	CL10B225KQ8NNN□	

Product Line Up (X7R)

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark		
0.90mm	25Vdc	15nF	±5%	CL10B153JA8NNN□		0.90mm	50Vdc	1.4nF	±5%	CL10B142JB8NNN□			
		15nF	±10%	CL10B153KA8NNN□				1.5nF	±5%	CL10B152JB8NNN□			
		18nF	±10%	CL10B183KA8NNN□				1.5nF	±10%	CL10B152KB8NNN□			
		18nF	±20%	CL10B183MA8NNN□				1.8nF	±5%	CL10B182JB8NNN□			
		22nF	±5%	CL10B223JA8NNN□				1.8nF	±10%	CL10B182KB8NNN□			
		22nF	±10%	CL10B223KA8NNN□				2.0nF	±10%	CL10B202KB8NNN□			
		27nF	±10%	CL10B273KA8NNN□				2.2nF	±5%	CL10B222JB8NNN□			
		33nF	±5%	CL10B333JA8NNN□				2.2nF	±10%	CL10B222KB8NNN□			
		33nF	±10%	CL10B333KA8NNN□				2.2nF	±20%	CL10B222MB8NNN□			
		39nF	±10%	CL10B393KA8NNN□				2.4nF	±10%	CL10B242KB8NNN□			
		47nF	±10%	CL10B473KA8NNN□				2.7nF	±5%	CL10B272JB8NNN□			
		56nF	±5%	CL10B563JA8NNN□				2.7nF	±10%	CL10B272KB8NNN□			
		56nF	±10%	CL10B563KA8NNN□				2.9nF	±10%	CL10B292KB8NNN□			
		68nF	±10%	CL10B683KA8NNN□				3.0nF	±10%	CL10B302KB8NNN□			
		82nF	±10%	CL10B823KA8NNN□				3.0nF	±20%	CL10B302MB8NNN□			
		100nF	±5%	CL10B104JA8NNN□				3.3nF	±5%	CL10B332JB8NNN□			
		100nF	±10%	CL10B104KA8NNN□				3.3nF	±10%	CL10B332KB8NNN□			
		100nF	±20%	CL10B104MA8NNN□				3.3nF	±20%	CL10B332MB8NNN□			
		150nF	±10%	CL10B154KA8NNN□				3.6nF	±5%	CL10B362JB8NNN□			
		220nF	±10%	CL10B224KA8NNN□				3.6nF	±10%	CL10B362KB8NNN□			
		470nF	±10%	CL10B474KA8NNN□				3.9nF	±10%	CL10B392KB8NNN□			
		1.0uF	±10%	CL10B105KA8NNN□				4.7nF	±5%	CL10B472JB8NNN□			
	50Vdc	100pF	±10%	CL10B101KB8NNN□				4.7nF	±10%	CL10B472KB8NNN□			
		120pF	±10%	CL10B121KB8NNN□				4.7nF	±20%	CL10B472MB8NNN□			
		150pF	±10%	CL10B151KB8NNN□				5.1nF	±10%	CL10B512KB8NNN□			
		180pF	±10%	CL10B181KB8NNN□				5.6nF	±5%	CL10B562JB8NNN□			
		200pF	±10%	CL10B201KB8NNN□				5.6nF	±10%	CL10B562KB8NNN□			
		220pF	±5%	CL10B221JB8NNN□				5.6nF	±20%	CL10B562MB8NNN□			
		220pF	±10%	CL10B221KB8NNN□				6.2nF	±5%	CL10B622JB8NNN□			
		270pF	±5%	CL10B271JB8NNN□				6.2nF	±10%	CL10B622KB8NNN□			
		270pF	±10%	CL10B271KB8NNN□				6.8nF	±5%	CL10B682JB8NNN□			
		300pF	±10%	CL10B301KB8NNN□				6.8nF	±10%	CL10B682KB8NNN□			
		330pF	±5%	CL10B331JB8NNN□				6.8nF	±20%	CL10B682MB8NNN□			
		330pF	±10%	CL10B331KB8NNN□				7.5nF	±5%	CL10B752JB8NNN□			
		360pF	±10%	CL10B361KB8NNN□				8.2nF	±5%	CL10B822JB8NNN□			
		390pF	±10%	CL10B391KB8NNN□				8.2nF	±10%	CL10B822KB8NNN□			
		430pF	±10%	CL10B431KB8NNN□				9.1nF	±5%	CL10B912JB8NNN□			
		470pF	±5%	CL10B471JB8NNN□				10nF	±5%	CL10B103JB8NNN□			
		470pF	±10%	CL10B471KB8NNN□				10nF	±10%	CL10B103KB8NNN□			
		500pF	±10%	CL10B501KB8NNN□				10nF	±20%	CL10B103MB8NNN□			
		510pF	±10%	CL10B511KB8NNN□				12nF	±5%	CL10B123JB8NNN□			
		560pF	±5%	CL10B561JB8NNN□				12nF	±10%	CL10B123KB8NNN□			
		560pF	±10%	CL10B561KB8NNN□				15nF	±5%	CL10B153JB8NNN			
		620pF	±5%	CL10B621JB8NNN□				15nF	±10%	CL10B153KB8NNN□			
		680pF	±5%	CL10B681JB8NNN□				15nF	±20%	CL10B153MB8NNN			
		680pF	±10%	CL10B681KB8NNN				18nF	±5%	CL10B183JB8NNN			
		750pF	±10%	CL10B751KB8NNN I				18nF	±10%	CL10B183KB8NNN			
		820pF	±5%	CL10B821JB8NNN I				20nF	±10%	CL10B203KB8NNN			
		820pF	±10%	CL10B821KB8NNN □				22nF	±5%	CL10B223JB8NNN			
		910pF	±5%	CL10B911JB8NNN				22nF	±10%	CL10B223JB8NNN CL10B223KB8NNN			
		1.0nF	±10%	CL10B911JB8NNN D				22nF	±20%	CL10B223MB8NNN			
		1.0nF	±10% ±20%							27nF	±20% ±10%		
			±20%	CL10B102MB8NNN CL10B132JB8NNND						CL10B273KB8NNN CL10B222IB8NNN			
		1.2nF 1.2nF	±5% ±10%	CL10B122JB8NNN CL10B122KB8NNN				33nF 33nF	±5% ±10%	CL10B333JB8NNN CL10B333KB8NNN			

Capacitance

±10%

±5%

+5%

±5%

±5%

±10%

±10%

±10%

±10%

±5%

 $\pm 10\%$ ±10%

±10%

±5%

±10%

±10%

±5%

Rated

25Vdc

50Vdc

Capacitance

68nF

18pF

22pF

56pF

100pF

100pF

150pF

180pF

200pF

220pF

220pF

270pF

300pF 330pF

330pF

360pF

390pF

Part Number

CL21B683KAANNN□

CL21B180JBANNN□

CL21B220JBANNN□

CL21B560JBANNN□

CL21B101JBANNN□

CL21B101KBANNN□

CL21B151KBANNN□

CL21B181KBANNN□

CL21B201KBANNN□

CL21B221JBANNN□ CL21B221KBANNN□

CL21B271KBANNN□

CL21B301KBANNN□

CL21B331JBANNN□

CL21B331KBANNN□

CL21B361KBANNN□

CL21B391JBANNN□

Remark

Product Line Up (X7R)

■ Size: 1.60 X 0.80mm (inch: 0603)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.
0.90mm	50Vdc	39nF	±5%	CL10B393JB8NNN□		0.75mm
		39nF	±10%	CL10B393KB8NNN□		
		47nF	±5%	CL10B473JB8NNN□		
		47nF	±10%	CL10B473KB8NNN□		
		47nF	±20%	CL10B473MB8NNN□		
		56nF	±5%	CL10B563JB8NNN□		
		56nF	±10%	CL10B563KB8NNN□		
		68nF	±5%	CL10B683JB8NNN□		
		68nF	±10%	CL10B683KB8NNN□		
		82nF	±5%	CL10B823JB8NNN□		
		82nF	±10%	CL10B823KB8NNN□		
		100nF	±5%	CL10B104JB8NNN□		
		100nF	±10%	CL10B104KB8NNN□		
		100nF	±20%	CL10B104MB8NNN□		
		220nF	±10%	CL10B224KB8NNN□		
		330nF	±10%	CL10B334KB8NNN□		

■ Size: 2.00 X 1.25mm (inch: 0805)

Size : 2	.00 X 1.2	25mm (inch :	0805)		
hickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
maxi	voitage		rolerance		
0.75mm	16Vdc	15nF	±10%	CL21B153KOANNN□	
		22nF	±10%	CL21B223KOANNN□	
		33nF	±10%	CL21B333KOANNN□	
		39nF	±10%	CL21B393KOANNN□	
		47nF	±10%	CL21B473KOANNN□	
		56nF	±10%	CL21B563KOANNN□	
		68nF	±10%	CL21B683KOANNN□	
		100nF	±5%	CL21B104J0ANNN□	
		100nF	±10%	CL21B104KOANNN□	
		100nF	±20%	CL21B104MOANNN□	
		120nF	±5%	CL21B124JOANNN□	
		150nF	±10%	CL21B154KOANNN□	
		180nF	±10%	CL21B184KOANNN□	
	25Vdc	220pF	±20%	CL21B221MAANNN□	
		1.0nF	±10%	CL21B102KAANNN□	
		1.0nF	±20%	CL21B102MAANNN□	
		2.2nF	±10%	CL21B222KAANNN□	
		2.2nF	±20%	CL21B222MAANNN□	
		4.7nF	±10%	CL21B472KAANNN□	
		5.6nF	±10%	CL21B562KAANNN□	
		6.8nF	±10%	CL21B682KAANNN□	
		6.8nF	±20%	CL21B682MAANNN□	
		10nF	±10%	CL21B103KAANNN□	
		12nF	±10%	CL21B123KAANNN□	
		15nF	±5%	CL21B153JAANNN□	
		15nF	±10%	CL21B153KAANNN□	
		18nF	±10%	CL21B183KAANNN□	
		22nF	±10%	CL21B223KAANNN□	
		27nF	±10%	CL21B273KAANNN□	
		33nF	±10%	CL21B333KAANNN□	
		39nF	±10%	CL21B393KAANNN□	
		47nF	±10%	CL21B473KAANNN□	
		56nF	±10%	CL21B563KAANNN□	

 $[\]begin{tabular}{ll} $\tt\#\ \square$ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148 \\ \end{tabular}$

Product Line Up (X7R)

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
0.75mm	50Vdc	3.9nF	±10%	CL21B392KBANNN□		0.95mm	50Vdc	2.7nF	±10%	CL21B272KBCNNN□	
		4.7nF	±5%	CL21B472JBANNN□				3.3nF	±10%	CL21B332KBCNNN□	
		4.7nF	±10%	CL21B472KBANNN□				4.7nF	±5%	CL21B472JBCNNN□	
		5.0nF	±10%	CL21B502KBANNN□				6.8nF	±10%	CL21B682KBCNNN□	
		5.1nF	±10%	CL21B512KBANNN□				10nF	±5%	CL21B103JBCNNN□	
		5.6nF	±5%	CL21B562JBANNN□				10nF	±10%	CL21B103KBCNNN□	
		5.6nF	±10%	CL21B562KBANNN□				18nF	±5%	CL21B183JBCNNN□	
		6.8nF	±5%	CL21B682JBANNN□				22nF	±10%	CL21B223KBCNNN□	
		6.8nF	±10%	CL21B682KBANNN□				24nF	±5%	CL21B243JBCNNN□	
		7.5nF	±10%	CL21B752KBANNN□				33nF	±5%	CL21B333JBCNNN□	
		8.2nF	±5%	CL21B822JBANNN□				39nF	±5%	CL21B393JBCNNN□	
		8.2nF	±10%	CL21B822KBANNN□				39nF	±10%	CL21B393KBCNNN□	
		9.1nF	±10%	CL21B912KBANNN□				47nF	±5%	CL21B473JBCNNN□	
		10nF	±5%	CL21B103JBANNN□				47nF	±10%	CL21B473KBCNNN□	
		10nF	±10%	CL21B103KBANNN□				47nF	±20%	CL21B473MBCNNN□	
		10nF	±20%	CL21B103MBANNN□				51nF	±10%	CL21B513KBCNNN□	
		12nF	±5%	CL21B123JBANNN□				56nF	±5%	CL21B563JBCNNN□	
		12nF	±10%	CL21B123KBANNN□				56nF	±10%	CL21B563KBCNNN□	
		12nF	±20%	CL21B123MBANNN□				68nF	±5%	CL21B683JBCNNN□	
		15nF	±5%	CL21B153JBANNN				68nF	±10%	CL21B683KBCNNN□	
		15nF	±10%	CL21B153KBANNN				82nF	±5%	CL21B823JBCNNN□	
		15nF	±20%	CL21B153MBANNN				82nF	±10%	CL21B823KBCNNN	
		18nF	±10%	CL21B183KBANNN				100nF	±5%	CL21B104JBCNNN	
		20nF	±10%	CL21B203KBANNN				100nF	±10%	CL21B104SBCNNN	
		22nF	±5%	CL21B223JBANNN				100nF	±20%	CL21B104MBCNNN	
		22nF	±10%	CL21B223KBANNN		1.35mm	6.3Vdc	1.0uF	±10%	CL21B105KQFNNN	
		27nF	±5%	CL21B273JBANNN		ווווווככ.ו	0.3 v u c	2.2uF	±5%	CL21B225JQFNNN	
		27nF	±10%	CL21B273KBANNN				2.2uF	±10%	CL21B225KQFNNN	
		33nF	±5%	CL21B333JBANNN				3.3uF	±10%	CL21B335KQFNNN	
		33nF	±10%	CL21B333JBANNN CL21B333KBANNN				3.3uF	±20%	CL21B335MQFNNN	
		33nF	±20%	CL21B333KBANNN CL21B333MBANNN				4.7uF	±10%	CL21B475KQFNNN	Ref.
		39nF	±5%	CL21B393JBANNN			10\/ds	4.7ui 470nF	±10%	CL21B474KPFNNN	Net.
		39nF	±10%	CL21B393/BANNN CL21B393KBANNN			10Vdc	680nF	±10%	CL21B474KFFNNN CL21B684KPFNNN	
		47nF		CL21B393KBANNN CL21B473KBANNN							
0.05	46)//		±10%					820nF	±10%	CL21B824KPFNNN	
0.95mm	16Vdc	150nF	±10%	CL21B154KOCNNN CL21B224JOCNNN				1.0uF	±5%	CL21B105JPFNNN II	
		220nF	±5%					1.0uF	±10%	CL21B105KPFNNN II	
		220nF	±10%	CL21B224KOCNNN				1.0uF	±20%	CL21B105MPFNNN	
		220nF	±20%	CL21B224MOCNNN				2.2uF	±10%	CL21B225KPFNNN CL21B225KPFNNN	
		270nF	±5%	CL21B274JOCNNN				2.2uF	±20%	CL21B225MPFNNN CL21B225KPFNNN	
		270nF	±10%	CL21B274KOCNNN				3.3uF	±10%	CL21B335KPFNNN CL21B335KPFNNN	
		330nF	±5%	CL21B334JOCNNN				4.7uF	±10%	CL21B475KPFNNN CL21B475KPFNNN	Ref.
		330nF	±10%	CL21B334KOCNNN			16Vdc	150nF	±10%	CL21B154KOFNNN	
		1.0uF	±10%	CL21B105KOCNNN				220nF	±10%	CL21B224K0FNNN	
	25Vdc	47nF	±10%	CL21B473KACNNN CL24B603KACNNN				330nF	±10%	CL21B334KOFNNN CL21B334KOFNNN	
		68nF	±10%	CL21B683KACNNN				390nF	±10%	CL21B394KOFNNN CL21B394KOFNNN	
		82nF	±10%	CL21B823KACNNN□				470nF	±5%	CL21B474JOFNNN	
		100nF	±5%	CL21B104JACNNN				470nF	±10%	CL21B474KOFNNN	
		100nF	±10%	CL21B104KACNNN				470nF	±20%	CL21B474MOFNNN□	
		100nF	±20%	CL21B104MACNNN□				680nF	±5%	CL21B684JOFNNN□	
		120nF	±5%	CL21B124JACNNN□				680nF	±10%	CL21B684K0FNNN□	
		120nF	±10%	CL21B124KACNNN□				1.0uF	±10%	CL21B105K0FNNN□	
		150nF	±10%	CL21B154KACNNN□				2.2uF	±10%	CL21B225K0FNNN□	
	50Vdc	1.0nF	±10%	CL21B102KBCNNN□				2.2uF	±20%	CL21B225MOFNNN□	
		2.2nF	±10%	CL21B222KBCNNN□				4.7uF	±10%	CL21B475KOFNNN□	Ref.

3.3nF

3.9nF

3.9nF

4.7nF

4.7nF

5.0nF 5.6nF

5.6nF

6.8nF

6.8nF

8.2nF

±10%

±5%

 $\pm 10\%$

±5%

±10% ±20%

±5%

±10%

±5%

±10%

±10%

CL31B332KBCNNN□

CL31B392JBCNNN□

CL31B392KBCNNN□

CL31B472JBCNNN□
CL31B472KBCNNN□

CL31B502MBCNNN□

CL31B562JBCNNN□

CL31B562KBCNNN□

CL31B682JBCNNN□

CL31B682KBCNNN□

CL31B822KBCNNN□

Remark

Product Line Up (X7R)

■ Size: 2.00 X 1.25mm (inch: 0805)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark	Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number
1.35mm	25Vdc	18nF	±10%	CL21B183KAFNNN□		1.00mm	16Vdc	270nF	±20%	CL31B274MOCNNN□
		47nF	±10%	CL21B473KAFNNN□				330nF	±10%	CL31B334KOCNNN□
		100nF	±10%	CL21B104KAFNNN 🗆				330nF	±20%	CL31B334MOCNNN□
		150nF	±10%	CL21B154KAFNNN 🗆				390nF	±10%	CL31B394KOCNNN□
		180nF	±10%	CL21B184KAFNNN 🗆				470nF	±10%	CL31B474KOCNNN□
		220nF	±5%	CL21B224JAFNNN 🗆				560nF	±10%	CL31B564KOCNNN□
		220nF	±10%	CL21B224KAFNNN 🗆				680nF	±10%	CL31B684KOCNNN□
		220nF	±20%	CL21B224MAFNNN 🗆			25Vdc	4.7nF	±10%	CL31B472KACNNN□
		270nF	±10%	CL21B274KAFNNN 🗆				22nF	±10%	CL31B223KACNNN□
		330nF	±10%	CL21B334KAFNNN 🗆				47nF	±10%	CL31B473KACNNN□
		390nF	±10%	CL21B394KAFNNN□				68nF	±10%	CL31B683KACNNN□
		470nF	±5%	CL21B474JAFNNN 🗆				100nF	±10%	CL31B104KACNNN□
		470nF	±10%	CL21B474KAFNNN 🗆				120nF	±10%	CL31B124KACNNN□
		1.0uF	±10%	CL21B105KAFNNN 🗆				150nF	±10%	CL31B154KACNNN□
		1.5uF	±10%	CL21B155KAFNNN 🗆				180nF	±10%	CL31B184KACNNN□
		2.2uF	±10%	CL21B225KAFNNN□				220nF	±5%	CL31B224JACNNN□
		4.7uF	±10%	CL21B475KAFNNN 🗆	Ref.			220nF	±10%	CL31B224KACNNN□
	35Vdc	1.0uF	±10%	CL21B105KLFNNN 🗆				270nF	±10%	CL31B274KACNNN□
	50Vdc	560pF	±10%	CL21B561KBFNNN□				330nF	±10%	CL31B334KACNNN□
		47nF	±10%	CL21B473KBFNNN□				390nF	±10%	CL31B394KACNNN□
		68nF	±5%	CL21B683JBFNNN□			50Vdc	120pF	±10%	CL31B121KBCNNN□
		68nF	±10%	CL21B683KBFNNN□				180pF	±10%	CL31B181KBCNNN□
		75nF	±10%	CL21B753KBFNNN□				220pF	±10%	CL31B221KBCNNN□
		82nF	±10%	CL21B823KBFNNN□				270pF	±10%	CL31B271KBCNNN□
		100nF	±5%	CL21B104JBFNNN□				330pF	±10%	CL31B331KBCNNN□
		100nF	±10%	CL21B104KBFNNN□				390pF	±5%	CL31B391JBCNNN□
		100nF	±20%	CL21B104MBFNNN□				390pF	±10%	CL31B391KBCNNN□
		120nF	±10%	CL21B124KBFNNN□				470pF	±10%	CL31B471KBCNNN□
		150nF	±10%	CL21B154KBFNNN□				560pF	±10%	CL31B561KBCNNN□
		220nF	±5%	CL21B224JBFNNN□				680pF	±10%	CL31B681KBCNNN□
		220nF	±10%	CL21B224KBFNNN□				820pF	±10%	CL31B821KBCNNN□
		270nF	±10%	CL21B274KBFNNN□				1.0nF	±5%	CL31B102JBCNNN□
		330nF	±10%	CL21B334KBFNNN□				1.0nF	±10%	CL31B102KBCNNN□
		470nF	±10%	CL21B474KBFNNN□				1.0nF	±20%	CL31B102MBCNNN□
		680nF	±10%	CL21B684KBFNNN□				1.2nF	±10%	CL31B122KBCNNN□
		1.0uF	±10%	CL21B105KBFNNN□				1.5nF	±5%	CL31B152JBCNNN□
		1.0uF	±20%	CL21B105MBFNNN□				1.5nF	±10%	CL31B152KBCNNN□
1.40mm	6.3Vdc	4.7uF	±10%	CL21B475KQQNNN□	Ref.			1.8nF	±10%	CL31B182KBCNNN□
		10uF	±10%	CL21B106KQQNNN□				2.0nF	±10%	CL31B202KBCNNN□
	10Vdc	4.7uF	±10%	CL21B475KPQNNN□	Ref.			2.2nF	±10%	CL31B222KBCNNN□
		10uF	±10%	CL21B106KPQNNN□				2.4nF	±10%	CL31B242KBCNNN□
	16Vdc	10uF	±10%	CL21B106KOQNNN□				3.0nF	±10%	CL31B302KBCNNN□
				<u> </u>				3.3nF	±5%	CL31B332JBCNNN□

■ Size: 3.20 X 1.60mm (inch: 1206)

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
1.00mm	10Vdc	1.0uF	±10%	CL31B105KPCNNN□	
		1.2uF	±10%	CL31B125KPCNNN□	
	16Vdc	22nF	±5%	CL31B223JOCNNN 🗆	
		100nF	±10%	CL31B104KOCNNN□	
		220nF	±10%	CL31B224KOCNNN□	
		270nF	±10%	CL31B274KOCNNN□	

 $^{*\}Box$ mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

Product Line Up (X7R)

■ Size: 3.20 X 1.60mm (inch: 1206)

nickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
.00mm	50Vdc	10nF	±5%	CL31B103JBCNNN	
		10nF	±10%	CL31B103KBCNNN	
		10nF	±20%	CL31B103MBCNNN□	
		15nF	±5%	CL31B153JBCNNN□	
		15nF	±10%	CL31B153KBCNNN□	
		18nF	±10%	CL31B183KBCNNN□	
		22nF	±5%	CL31B223JBCNNN	
		22nF	±10%	CL31B223KBCNNN□	
		27nF	±5%	CL31B273JBCNNN	
		27nF	±10%	CL31B273KBCNNN□	
		33nF	±5%	CL31B333JBCNNN□	
		33nF	±10%	CL31B333KBCNNN□	
		39nF	±5%	CL31B393JBCNNN□	
		39nF	±10%	CL31B393KBCNNN□	
		47nF	±5%	CL31B473JBCNNN□	
		47nF	±10%	CL31B473KBCNNN□	
		56nF	±5%	CL31B563JBCNNN□	
		56nF	±10%	CL31B563KBCNNN□	
		68nF	±10%	CL31B683KBCNNN□	
		82nF	±10%	CL31B823KBCNNN□	
		100nF	±5%	CL31B104JBCNNN□	
		100nF	±10%	CL31B104KBCNNN□	
		100nF	±20%	CL31B104MBCNNN□	
		120nF	±10%	CL31B124KBCNNN□	
		150nF	±10%	CL31B154KBCNNN□	
		220nF	±10%	CL31B224KBCNNN□	
.20mm	16Vdc	4.7uF	±10%	CL31B475KOELNN□	
.25mm	10Vdc	2.2uF	±10%	CL31B225KPENNN□	
		2.2uF	±20%	CL31B225MPENNN□	
	25Vdc	1.0uF	± 10 %	CL31B105KAPLNN□	
.40mm	10Vdc	1.5uF	±10%	CL31B155KPFNNN□	
-10111111	Tovac	2.2uF	±10%	CL31B225KPFNNN	
		2.2uF	±20%	CL31B225MPFNNN	
	16Vdc	820nF	±10%	CL31B824K0FNNN□	
	TOVAC	1.0uF	±5%	CL31B105J0FNNN	
		1.0uF	±10%	CL31B105K0FNNN	
		1.0uF	±20%	CL31B105M0FNNN	
		1.5uF	±10%	CL31B155K0FNNN	
	25Vdc	10nF	±2%	CL31B103GAFNNN	
	25 4 4 6	470nF	±5%	CL31B474JAFNNN	
		470nF	±10%	CL31B474KAFNNN	
		470nF	±20%	CL31B474MAFNNN	
		560nF	±10%	CL31B564KAFNNN	
	50Vdc	100nF	±10%	CL31B104KBFNNN	
	Jovac	180nF	±10%	CL31B184KBFNNN	
		200nF	±10%	CL31B204KBFNNN	
		220nF	±5%	CL31B224JBFNNN	
		220nF	±10%	CL31B224KBFNNN	
		220nF 220nF	±10% ±20%	CL31B224MBFNNND	
		270nF	±10%	CL31B274KBFNNN	
		330nF	±5%	CL31B334JBFNNN	
00	C 2) / I	330nF	±10%	CL31B334KBFNNN II	
.80mm	6.3Vdc	3.3uF	±10%	CL31B335KQHNNN	
		6.8uF	±10%	CL31B685KQHNNN□	

1.80mm	6.3Vdc	10uF			
_		Toul	±10%	CL31B106KQHNNN□	
_		10uF	±20%	CL31B106MQHNNN□	
		22uF	±10%	CL31B226KQHNNN□	
	10Vdc	4.7uF	±10%	CL31B475KPHNNN□	
		6.8uF	+80/-20%	CL31B685ZPHNNN□	
		10uF	±10%	CL31B106KPHNNN□	
		22uF	±10%	CL31B226KPHNNN□	
		22uF	±20%	CL31B226MPHNNN□	
	16Vdc	1.0uF	±20%	CL31B105MOHNNN□	
		2.2uF	±10%	CL31B225KOHNNN□	
		2.2uF	±20%	CL31B225MOHNNN□	
		3.3uF	±10%	CL31B335KOHNNN□	
		4.7uF	±10%	CL31B475KOHNNN□	
		10uF	±10%	CL31B106KOHNNN□	
		10uF	±20%	CL31B106MOHNNN□	
	25Vdc	680nF	±10%	CL31B684KAHNNN□	
		1.0uF	±5%	CL31B105JAHNNN□	
		1.0uF	±10%	CL31B105KAHNNN□	
		1.0uF	±20%	CL31B105MAHNNN□	
		1.2uF	±20%	CL31B125MAHNNN□	
		2.2uF	±10%	CL31B225KAHNNN□	
		2.2uF	±20%	CL31B225MAHNNN□	
		4.7uF	±10%	CL31B475KAHNNN□	
		4.7uF	±20%	CL31B475MAHNNN□	
		10uF	±10%	CL31B106KAHNNN□	
	35Vdc	10uF	±10%	CL31B106KLHNNN□	Ref.
	50Vdc	4.7nF	±10%	CL31B472KBHNNN□	
		390nF	±10%	CL31B394KBHNNN□	
		470nF	±5%	CL31B474JBHNNN□	
		470nF	±10%	CL31B474KBHNNN□	
		680nF	±10%	CL31B684KBHNNN□	
		1.0uF	±10%	CL31B105KBHNNN□	
		2.2uF	±10%	CL31B225KBHNNN□	
		4.7uF	±10%	CL31B475KBHNNN□	
		10uF	±10%	CL31B106KBHNNN□	Ref.

 $[\]mbox{\tt \#}$ $\mbox{\tt mark}$ means packaging code. If you want to learn the code or quantity in detail, please see p.148



Product Line Up (X7R)

■ Size: 3.20 X 2.50mm (inch: 1210)

Thickness	Rated		Capacitance		
Max.	Voltage	Capacitance	Tolerance	Part Number	Remark
1.45mm	16Vdc	100nF	±10%	CL32B104K0FNNN□	
		220nF	±10%	CL32B224K0FNNN□	
		470nF	±10%	CL32B474K0FNNN□	
		680nF	±10%	CL32B684K0FNNN□	
		1.0uF	±10%	CL32B105K0FNNN□	
		2.2uF	±10%	CL32B225K0FNNN□	
	25Vdc	220nF	±5%	CL32B224JAFNNN□	
		220nF	±10%	CL32B224KAFNNN□	
		470nF	±20%	CL32B474MAFNNN□	
		560nF	±5%	CL32B564JAFNNN□	
		1.0uF	±10%	CL32B105KAFNNN□	
	50Vdc	47nF	±10%	CL32B473KBFNNN□	
	30146	100nF	±5%	CL32B104JBFNNN□	
		100nF	±10%	CL32B104KBFNNN□	
		100nF	±20%	CL32B104MBFNNN	
		120nF	±5%	CL32B124JBFNNN	
		120nF	±10%	CL32B124KBFNNN	
		120nF	±20%	CL32B124MBFNNN D	
		150nF	±5%	CL32B154JBFNNN	
		150nF	±10%	CL32B154KBFNNN	
		220nF	±5%	CL32B224JBFNNN	
		220nF	±10%	CL32B224JBFNNN CL32B224KBFNNN	
		270nF	±10%	CL32B274KBFNNN	
		330nF	±5%	CL32B334JBFNNN	
		330nF			
			±10%	CL32B334KBFNNN	
		390nF	±10%	CL32B394KBFNNN	
		470nF	±5%	CL32B474JBFNNN	
1.00	46) / 1	470nF	±10%	CL32B474KBFNNN □	
1.80mm	16Vdc 25Vdc	3.3uF	±10%	CL32B335KOHNNN	
	25000	330nF	±10%	CL32B334KAHNNN	
	F0) / I	2.2uF	±10%	CL32B225KAHNNN	
	50Vdc	820nF	±10%	CL32B824KBHNNN□	
		1.0uF	±10%	CL32B105KBHNNN	
		1.0uF	±20%	CL32B105MBHNNN□	
2.00mm	16Vdc	10uF	±10%	CL32B106KOULNN□	
	25Vdc	10uF	±10%	CL32B106KAULNN	
	35Vdc	4.7uF	±10%	CL32B475KLULNN	
		10uF	±10%	CL32B106KLULNN□	
2.20mm	10Vdc	4.7uF	±10%	CL32B475KPINNN□	
		10uF	±10%	CL32B106KPINNN□	
	16Vdc	4.7uF	±10%	CL32B475KOINNN□	
	25Vdc	2.2uF	±10%	CL32B225KAINNN□	
2.70mm	6.3Vdc	22uF	±20%	CL32B226MQJNNN□	
		47uF	±20%	CL32B476MQJNNN□	Ref.
	10Vdc	22uF	±10%	CL32B226KPJNNN□	
		47uF	±20%	CL32B476MPJNNN□	Ref.
	16Vdc	10uF	±10%	CL32B106KOJNNN□	
		22uF	±10%	CL32B226KOJNNN□	
		22uF	±20%	CL32B226MOJNNN□	
	25Vdc	3.3uF	±10%	CL32B335KAJNNN□	
		10uF	±10%	CL32B106KAJNNN□	
		22uF	±10%	CL32B226KAJNNN□	
	35Vdc	10uF	±10%	CL32B106KLJNNN	
	50Vdc	2.2uF	±10%	CL32B225KBJNNN	

Thickness Max.	Rated Voltage	Capacitance	Capacitance Tolerance	Part Number	Remark
2.70mm	50Vdc	4.7uF	±10%	CL32B475KBJNNN□	
		10uF	±10%	CL32B106KBJNNN□	

* Remarks : Symbols in this catalog have the following definition.

Derating This capacitor with derating is designed for 70% of the rated voltage or less.

dw/dt dv/dt means Pulse(dv/dt) Guarantee Capacitor, 10,000V/us(=10V/ns) max.10,000 cycles guarantee(@Vr, Room temp)

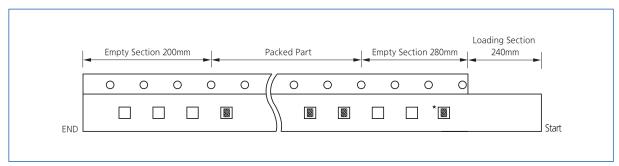
Reference means that CAP & TCC have the exceptional measurement conditions for Capacitance and Temperature Characteristics of Capacitance.

So please refer to the individual specification for CAP and the individual characteristics data for TCC on Website.

 ^{★ ☐} mark means packaging code. If you want to learn the code or quantity in detail, please see p.148

Packaging Specifications

Taping figure



★The chip is only use for identifying the label and packaged products. Please don't use the chip.

Packaging Code & Quantity

Unit : kpcs

												OTHE RPCS
Size inch(mm)	Thickness code	Cardboard(Paper) Type										
		7" Reel				10" Reel	13" Reel					
c.i.(iiiii)		С	8	Н	Z*	Υ*	0	D	L	2*	7*	3
01005(0402)	2	20	-	-	-	-	-	100	50	-	-	-
0201(0603)	3	10	_	15	10	10	30	50	-	150	50	-
	3	10	-	15	-	-	30	50	-	-	-	-
0402(1005)	5	10	8	-	10	10	30	50	40	100	50	-
	7,8(THMC)	-	8	-	-	-	-	-	-	-	-	30
0504(1410)	8	4	-	-	-	-	10	10	15	-	-	-
	5	4	-	-	-	-	30	50	-	-	-	-
0603(1608)	8	4	-	-	4	4	10	10	15	-	-	-
	9, N	4	-	-	-	-	-	-	-	-	_	-
0805(2012)	A,C	4	-	-	-	-	10	10	15	-	-	-
1206(3216)	C	4	-	-	-	-	10	10	15	-	-	-

^{* 2 = 1}mm Pitch $\,/\,$ Z = Chip aligned for horizontal $\,/\,$ Y, 7 = Chip aligned for vertical

Unit : kpcs

Size	Thickness	Embossed(Plastic) Type							Bulk
inch(mm)	code		7"	Reel		10" Reel	13" Reel	Туре	Type
mentining	couc	E	G	W*	R*	S	F	Р	В
01005(0402)	2	50	-	-	-	-	-	-	-
0201(0603)	1	10	-	-	-	-	-	-	-
0402(1005)	1,2,L	15	-	_	_	-	-	-	_
0402(1003)	3,5	_	-	_	_	-	-	50	-
0603(1608)	8	3	-	_	3	-	10	15	_
0003(1006)	E,M	3	_	_	_	-	_	-	-
0604(1610)	D	3	-	3	_	6	10	-	-
	A,C	-	-	-	-	-	-	10	-
0005(2012)	Е	2	3	2	_	6	10	5	_
0805(2012)	F	2	3	2	-	6	10	5	_
	Q	2	3	2	-	6	10	5	_
1200(2210)	E,P,F	2	3	-	-	6	10	-	-
1206(3216)	Н	2	-	2	-	4	8	-	-
	9,D,C,O	2	-	-	-	-	10	-	-
	E,F,M	2	-	-	-	-	10	-	-
1210/2225\	H,T	2	-	-	-	4	8	-	-
1210(3225)	I,U	2	-	-	-	-	4	-	-
	J, V	1	-	1	_	-	4	-	-
	S	2	-	-	-	-	8	-	-
1808(4520)	F	2	-	-	-	-	-	-	-
	F	1	-	-	-	-	4	-	-
1812(4532)	H,I	1	-	_	_	-	4	-	-
	J,L	_	_	_	_	_	2	-	_
2220(5750)	H,I,J	-	-	-	_	-	2	-	_

^{*} R = Chip aligned for horizontal $\,/\,$ W = Chip aligned for vertical