



Line-up of MLCC

2024. 08. 20



CQ Series (Automotive Applications)

- **Class I (COG) : Temperature Compensation Type**

CQ Series (Automotive Applications)



COG (Class I) : Temperature Compensation Type

General Product
 Soft Termination
 Development

		COG																														
Size (inch)	Rated Voltage (V)	Capacitance																												Capacitance range		
		1pF	2.2pF	4.7pF	6.8pF	10pF	22pF	47pF	68pF	100pF	270pF	330pF	470pF	680pF	1nF	1.8nF	2.2nF	2.7nF	3.3nF	4.7nF	5.6nF	10nF	22nF	27nF	33nF	47nF	91nF	100nF				
1005 (0402)	25																													0.5pF~1nF		
	50																															
1608 (0603)	25																													0.5pF~5.6nF		
	50																															
	100																															
2012 (0805)	25																													0.5pF~10nF		
	50																															
	100																															
	250																															
3216 (1206)	25																													0.5pF~100nF		
	50																															
	100																															
	250																															
	630																															
	1000																															
4532 (1812)	100																														0.5pF~33nF	
	250																															
	630																															
	1000																															
	2000																															
	3000																															

※ Please contact us if you have any inquiry about our product.

CQ Series (Automotive Applications)

- **X5R (Class II): High Dielectric Type**

X5R (Class II) : High Dielectric Type

General Product
 Soft Termination
 Development

X5R																							
Size (inch)	Rated Voltage (V)	Capacitance																				Capacitance range	
		1nF	2.2nF	4.7nF	10nF	15nF	47nF	0.1uF	0.15uF	0.22uF	0.47uF	1uF	2.2uF	4.7uF	6.8uF	10uF	22uF	47uF	100uF	220uF	330uF		
3216 (1206)	6.3	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	100pF~47uF
	10	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	16	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	25	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	50	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
3225 (1210)	6.3	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	100pF~100uF
	10	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	16	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	25	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	50	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
4532 (1812)	16	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	100pF~22uF
	25	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	
	50	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	General	

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CQ Series (Automotive Applications)

- **X7R (Class II): High Dielectric Type**



SAMWHA CAPACITOR

CS Series (General Applications)

- **Class I (COG) : Temperature Compensation Type**

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SAMWHA CAPACITOR

CS Series (General Applications)

- X5R (Class II): High Dielectric Type**

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SAMWHA CAPACITOR

CS Series (General Applications)

- X7R (Class II): High Dielectric Type**

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SAMWHA CAPACITOR

Special Design

- Floating mode**
- Open mode**
- Soft termination**

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COG (Class I) : Temperature Compensation Type

Floating mode
 Open mode
 Soft Termination
 Development

		COG																												Capacitance range
Size (inch)	Rated Voltage (V)	Capacitance																												
		1~39pF	47pF	68pF	100pF	220pF	330pF	470pF	680pF	1nF	1.5nF	1.8nF	2.2nF	2.7nF	3.3nF	3.9nF	4.7nF	5.6nF	8.2nF	10nF	22nF	27nF	33nF	47nF	91nF	100nF	220nF			
3225 (1210)	25	[Color-coded cells for 3225, 25V]																										0.5pF~4.7nF		
		[Color-coded cells for 3225, 25V]																												
	50	[Color-coded cells for 3225, 50V]																												
		[Color-coded cells for 3225, 50V]																												
	100	[Color-coded cells for 3225, 100V]																												
		[Color-coded cells for 3225, 100V]																												
4520 (1808)	100	[Color-coded cells for 4520, 100V]																										0.5pF~5.6nF		
		[Color-coded cells for 4520, 100V]																												
	250	[Color-coded cells for 4520, 250V]																												
		[Color-coded cells for 4520, 250V]																												
	630	[Color-coded cells for 4520, 630V]																												
		[Color-coded cells for 4520, 630V]																												
1000	[Color-coded cells for 4520, 1000V]																													
	[Color-coded cells for 4520, 1000V]																													
2000	[Color-coded cells for 4520, 2000V]																													
	[Color-coded cells for 4520, 2000V]																													
3000	[Color-coded cells for 4520, 3000V]																													
	[Color-coded cells for 4520, 3000V]																													
4532 (1812)	100	[Color-coded cells for 4532, 100V]																										0.5pF~100nF		
		[Color-coded cells for 4532, 100V]																												
	250	[Color-coded cells for 4532, 250V]																												
		[Color-coded cells for 4532, 250V]																												
	630	[Color-coded cells for 4532, 630V]																												
		[Color-coded cells for 4532, 630V]																												
1000	[Color-coded cells for 4532, 1000V]																													
	[Color-coded cells for 4532, 1000V]																													
2000	[Color-coded cells for 4532, 2000V]																													
	[Color-coded cells for 4532, 2000V]																													
3000	[Color-coded cells for 4532, 3000V]																													
	[Color-coded cells for 4532, 3000V]																													

X7R (Class II): High Dielectric Type

Floating mode
 Open mode
 Soft Termination
 Development

X7R																					
Size (inch)	Rated Voltage (V)	Capacitance																			Capacitance range
		1nF	2.2nF	4.7nF	6.8nF	10nF	15nF	22nF	47nF	68nF	100nF	220nF	330nF	470nF	680nF	1uF	2.2uF	4.7uF	10uF	22uF	
1005 (0402)	16	Floating mode		Open mode																	1nF~100nF
		Soft Termination																			
	25	Floating mode		Open mode																	
Soft Termination																					
50	Floating mode		Open mode				Soft Termination														
	1608 (0603)	16	Floating mode		Open mode																
Soft Termination											X7T	X7T	X7T	X7T							
25		Floating mode		Open mode																	
		Soft Termination											X7T	X7T	X7T	X7T					
50	Floating mode		Open mode				Soft Termination														
	Soft Termination																				
100	Floating mode		Open mode																		
	Soft Termination																				
2012 (0805)	16	Floating mode		Open mode																	1nF~4.7uF
		Soft Termination															X7T	X7T			
	25	Floating mode		Open mode																	
		Soft Termination															X7T	X7T			
50	Floating mode		Open mode				Soft Termination														
	Soft Termination															X7T	X7T				
100	Floating mode		Open mode				Soft Termination														
	Soft Termination																				
3216 (1206)	16	Floating mode		Open mode																	1nF~10uF
		Soft Termination																	X7S	X7T	
	25	Floating mode		Open mode				Soft Termination													
		Soft Termination																	X7S	X7T	
50	Floating mode		Open mode				Soft Termination														
	Soft Termination																	X7S			
100	Floating mode		Open mode				Soft Termination														
	Soft Termination																				

X7R (Class II): High Dielectric Type

Floating mode
 Open mode
 Soft Termination
 Development

X7R																						
Size (inch)	Rated Voltage (V)	Capacitance																		Capacitance range		
		1nF	2.2nF	4.7nF	6.8nF	10nF	15nF	22nF	47nF	68nF	100nF	220nF	470nF	680nF	1uF	2.2uF	4.7uF	10uF	22uF		47uF	
3225 (1210)	16																				1nF~22uF	
	25																			X7T		
	50																			X7T		
	100																					
4532 (1812)	16																				1nF~22uF	
	25																			X7S		
	50																			X7S		
	100																					

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SAMWHA CAPACITOR

High temperature application

- X8R

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High Temperature application



X8R Line up

Development

Size Code (EIA Code)	1005 (0402)				1608 (0603)				2012 (0805)				3216 (1206)				3225(1210)			
V	16	25	50	100	16	25	50	100	16	25	50	100	16	25	50	100	25	50	100	
Capacitance																				
1000pF (102)	Grey	Grey	Grey		Yellow	Yellow	Yellow	Yellow												
4700pF (472)					Yellow	Yellow	Yellow													
6800pF (682)									Blue	Blue	Blue	Blue								
10000pF (103)	Grey	Grey	Grey										Orange	Orange	Orange					
22000pF (223)																				
47000pF (473)																				
68000pF (683)																				
0.1uF (104)																				
0.15uF (154)																				
0.22uF (224)																	Orange			
0.47uF (474)																				
0.68uF (684)																				
1.0uF (105)																				
2.2uF (225)																	Blue	Blue		
4.7uF (475)																				
10uF (106)																				

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