

Low ESL Capacitors _ LICC

Low Inductance Ceramic Capacitor

Feature

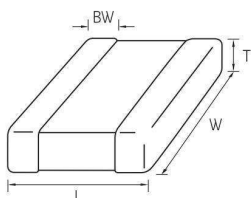


- Low ESL, good for noise reduction for high frequency
- Highly reliable performance
- Tape & reel for surface mount assembly

Application

- High Speed Microprocessor
- High Frequency Digital Equipment

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)				
		L	W	T	Thickness Code	BW
L5	0204	0.52±0.05	1.00±0.05	0.30±0.05	3	0.18±0.06
L6	0304	0.60±0.05	1.00±0.05	0.40±0.05	4	0.18±0.10
O1	0306	0.80±0.05	1.60±0.20	0.50+0.05/-0.10	5	0.25±0.15

Low ESL Capacitance Table

Size inch (mm)	Rated Voltage (Vdc)	Capacitance(uF)						
		0.01	0.1	0.22	0.47	1.0	2.2	4.3
0204 (0510)	2.5					X7S		
	4.0				X6S			
	6.3		X7T					
0304(0610)	4.0							X5R
0306 (0816)	4.0			X7S				
	6.3		X7R					
	10		X7R					
	25	X7R						

Product Line Up

EIA Code	Size L × W	Thickness Max.	Rated Voltage	TC Code	Capacitance	Capacitance Tolerance	Part Number	Remark
0204	0.50mm × 1.00mm	0.35mm	2.5Vdc	X7T	1.0uF	±20%	CLL5Z105MS3NLN □	Derating
			4.0Vdc	X6S	470nF	±20%	CLL5X474MR3NLN □	Derating
				X6S	1.0uF	±20%	CLL5X105MR3NLN □	Derating
			6.3Vdc	X7S	100nF	±20%	CLL5Y104MQ3NLN □	
0304	0.60mm × 1.00mm	0.45mm	4.0Vdc	X5R	4.3uF	±20%	CLL6A435MR4NLN □	Derating
0306	0.80mm × 1.60mm	0.55mm	4.0Vdc	X7S	100nF	±20%	CL01Y104MR5NLN □	
				X7S	1.0uF	±20%	CL01Y105MR5NLN □	Derating
			6.3Vdc	X7R	100nF	±10%	CL01B104KQ5NLN □	
			10Vdc	X7R	100nF	±10%	CL01B104KP5NLN □	
			25Vdc	X7R	10nF	±10%	CL01B103KA5NLN □	

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Low ESL Capacitors _ SLIC

Super Low Inductance Capacitor

Feature

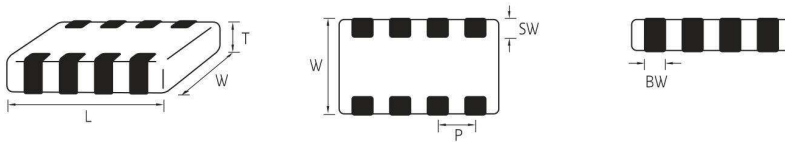


- Low ESL, good for noise reduction for high frequency
- Highly reliable performance
- Tape & reel for surface mount assembly

Application

- High Speed Microprocessor
- High Frequency Digital Equipment

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)						
		L	W	T	Thickness Code	BW	SW	P
10	0603	1.60±0.10	0.80±0.10	0.50+0.05/-0.10	5	0.25±0.10	0.15±0.10	0.40±0.10
21	0805	2.00±0.10	1.25±0.10	0.50+0.05/-0.10	5	0.25+0.15/-0.10	0.20+0.15/-0.10	0.50±0.10

Low ESL Capacitance Table

Size inch (mm)	T max. (mm)	Rated Voltage (Vdc)	Capacitance(μF)						
			0.1	0.22	0.47	0.68	1.0	2.2	4.3
0603(1608)	0.55	4.0		X7S				X7S	
0805(2012)	0.55	4.0			X7R			X7S	

Product Line Up

EIA Code	Size L x W	Thickness Max.	Rated Voltage	TC Code	Capacitance	Capacitance Tolerance	Part Number
0603	1.60mm x 0.80mm	0.55mm	4.0Vdc	X7S	100nF	±20%	CL10Y104MR5NUN□
				X7S	470nF	±20%	CL10Y474MR5NUN□
				X7S	1.0μF	±20%	CL10Y105MR5NUN□
				X7S	2.2μF	±20%	CL10Y225MR5NUN□
0805	2.00mm x 1.25mm	0.55mm	4.0Vdc	X7S	2.2μF	±20%	CL21Y225MR5NUN□
			6.3Vdc	X7R	470nF	±20%	CL21B474MQ5NUN□
				X7R	680nF	±20%	CL21B684MQ5NUN□

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Low ESL Capacitors _ 3T

3-Terminal Capacitor

Feature

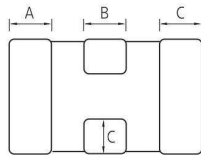
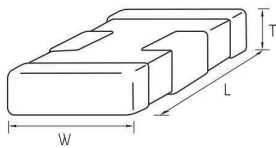


- Low ESL, good for noise reduction for high frequency
- Highly reliable performance
- Tape & reel for surface mount assembly

Application

- High Speed Microprocessor
 - CPU / GPU for PC & Game console
 - AP for Smartphone
 - Network IC
- High Frequency Digital Equipment

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)						
		L	W	T	Thickness Code	BW		
						A	B	C
05	0402	1.05±0.05	0.65±0.05	0.45±0.05	5	0.17±0.10	0.35±0.10	0.15±0.10
19	0503	1.20±0.05	0.90±0.05	0.75±0.05	7	0.15±0.10	0.50±0.10	0.20±0.10

Low ESL Capacitance Table

Size inch (mm)	T max. (mm)	Rated Voltage (Vdc)	Capacitance(μF)					
			1.0	2.2	4.3	10	22	47
0402(1005)	0.5	4.0			X5R			
0503(1209)	0.8	4.0					X5R	

Product Line Up

EIA Code	Size L × W	Thickness Max.	Rated Voltage	TC Code	Capacitance	Capacitance Tolerance	Part Number
0402	1.00mm × 0.50mm	0.50mm	4.0Vdc	X5R	4.3μF	±20%	CL05A435MR5NWN □
0503	1.20mm × 0.90mm	0.80mm	4.0Vdc	X5R	22μF	±20%	CL19A226MR7NWN □

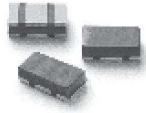
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Low ESL Capacitors _ VLC

Vertically Laminated Capacitor

Feature

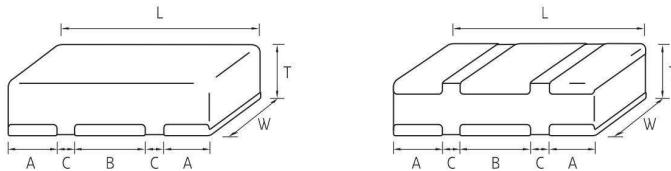


- Lowest ESL, good for noise reduction for high frequency
- Highly reliable performance
- Tape & reel for surface mount assembly

Application

- High Speed Microprocessor
- CPU / GPU for PC & Game console
- AP for Smartphone
- Network IC
- High Frequency Digital Equipment

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)						
		L	W	T	Thickness Code	Band Width		Band Gap
						A	B	C
21	0805	2.00±0.10	1.25±0.10	0.70±0.10 0.90±0.10	7 9	0.42±0.10	0.74±0.10	0.21±0.05

Low ESL Capacitance Table

Size inch (mm)	T max. (mm)	Rated Voltage (Vdc)	Capacitance(μF)							
			1.0	2.2	3.3	4.7	10	22	47	
0805(2012)	0.8	4.0								X5R
	1.0	4.0								X5R

Product Line Up

EIA Code	Size L × W	Thickness Max.	Rated Voltage	TC Code	Capacitance	Capacitance Tolerance	Part Number
0805	2.00mm × 1.25mm	0.80mm	4.0Vdc	X5R	47μF	±20%	CL21A476MR7NVN□
		1.00mm		X5R	47μF	±20%	CL21A476MR9NVN□

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Low ESL Capacitors _ X2Y®

Feature

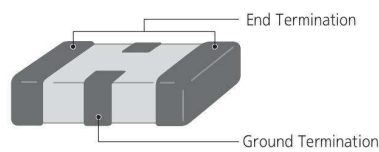
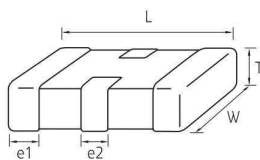


- One device for EMI suppression or decoupling
- Differential and common mode attenuation
- Matched capacitance line to ground, both lines

Application

- Amplifier Filter & Decoupling
- High Speed Data Filtering
- EMC I / O Filtering
- FPGA / ASIC / u - P Decoupling
- DDR Memory Decoupling

Structure and Dimensions



Size Code	EIA Code	Dimension(mm)					
		L	W	T	Thickness Code	e1	e2
10	0603	1.60±0.15	0.80±0.10	0.60±0.10	6	0.25±0.15	0.45±0.15

Low ESL Capacitance Table

Size inch (mm)	T max. (mm)	Rated Voltage (Vdc)	Capacitance							
			nF			uF				
			1.0	2.2	4.7	0.1	0.22	0.47	1.0	
0603 (1608)	0.7	6.3					X7R			X5R
		10							X5R	
		16					X7R			
		25								
		50	X7R							
		100			X7R					

Product Line Up

EIA Code	Size L x W	Thickness Max.	Rated Voltage	TC Code	Capacitance	Capacitance Tolerance	Part Number
0603	1.60mm x 0.80mm	0.70mm	6.3Vdc	X7R	220nF	±20%	CL10B224MQ6NXN□
				X5R	1.0uF	±20%	CL10A105MQ6NXN□
			10Vdc	X5R	470nF	±20%	CL10A474MP6NXN□
				X5R	1.0uF	±20%	CL10A105MP6NXN□
			16Vdc	X7R	100nF	±20%	CL10B104MQ6NXN□
				X7R	220nF	±20%	CL10B224MO6NXN□
			50Vdc	X7R	1.0nF	±20%	CL10B102MB6NXN□
			100Vdc	X7R	2.2nF	±20%	CL10B222MC6NXN□
X7R	4.7nF	±20%		CL10B472MC6NXN□			

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