

# MURATA Low ESL Ceramic Chip Capacitors



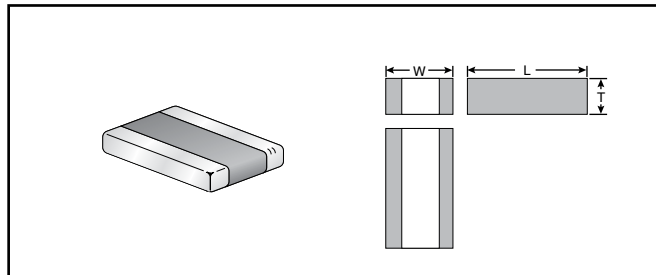
## LLL SERIES - STANDARD TWO TERMINAL REVERSED GEOMETRY LOW ESL TYPE

RoHS Compliant This product is RoHS compliant.

Murata offers a standard profile and low profile low inductance series of capacitors. Murata's Low ESL product line up includes the standard 2 terminal, reversed geometry type, (LLL Series), eight (8) terminal type (LLA Series) and Ten (10) terminal type (LLM Series). These three series are plated with Ni and matte Sn, and are RoHS compliant. Murata's low ESL series provide high capacitance in small case sizes. The low ESL series is especially ideal for high-speed microprocessors and high frequency digital equipment.

**Features:**

- Low ESL: 150 to 250pH - suitable for noise reduction at high frequencies (> 200MHz)
- Operating temperature: **X7R**: -55°C to 125°C w/ a ±15% cap change over temperature range
- **X7S**: -55°C to 125°C w/ a ±22% cap change over temperature range
- **X6S**: -55°C to 105°C w/ a ±22% cap change over temperature range



Part No.	Dimensions: mm		
	W	L	T
LLL153	1.0 ± 0.05	0.5 ± 0.05	0.3 ± 0.05
LLL185	1.6 ± 0.1	0.8 ± 0.1	0.6 max.
LLL215	2.0 ± 0.1	1.25 ± 0.1	0.5 +0/-0.15
LLL216			0.6 ± 0.1
LLL219			0.85 ± 0.1
LLL315	3.2 ± 0.15	1.6 ± 0.15	0.5 ± 0.1
LLL317			0.7 ± 0.1
LLL31B			1.25 +0.15/-0.05
LLL31M			1.15 ± 0.1



RoHS Compliant

Ceramic Caps, SMD

Murata

MOUSER STOCK NO.	Murata Part No.	Case Size	Type	Temperature Coefficient	Voltage	Value	Price Per Piece				Reel Quantity	Price Per Piece
							1	50	100	500		
81-LLL153C80J104ME1E	LLL153C80J104ME01E	0204	Standard	X6S	6.3V	0.1uF					10000	
81-LLL185R71H222M01L	LLL185R71H222MA01L	0306	Standard	X7R	50V	2200pF					4000	
81-LLL185R71H472M01L	LLL185R71H472MA01L	0306	Standard	X7R	50V	4700pF					4000	
81-LLL185R71C103MA1L	LLL185R71C103MA11L	0306	Low Profile	X7R	16V	0.01uF					4000	
81-LLL185R71E103M01L	LLL185R71E103MA01L	0306	Standard	X7R	25V	0.01uF					4000	
81-LLL185R71E103M11L	LLL185R71E103MA11L	0306	Low Profile	X7R	25V	0.01uF					4000	
81-LLL185R71C223M11L	LLL185R71C223MA11L	0306	Low Profile	X7R	16V	0.022uF					4000	
81-LLL185R71E223M01L	LLL185R71E223MA01L	0306	Standard	X7R	25V	0.022uF					4000	
81-LLL185R71C473M01L	LLL185R71C473MA01L	0306	Standard	X7R	16V	0.047uF					4000	
81-LLL185R71C473M11L	LLL185R71C473MA11L	0306	Low Profile	X7R	16V	0.047uF					4000	
81-LLL18R71A104MA01L	LLL185R71A104MA01L	0306	Standard	X7R	10V	0.1uF					4000	
81-LLL185R71A104M11L	LLL185R71A104MA11L	0306	Low Profile	X7R	10V	0.1uF					4000	
81-LLL185R70J224M01L	LLL185R70J224MA01L	0306	Standard	X7R	6.3V	0.22uF					4000	
81-LLL185C70G224M11L	LLL185C70G224MA11L	0306	Low Profile	X7S	4V	0.22uF					4000	
81-LLL185C70G474M01L	LLL185C70G474MA01L	0306	Standard	X7S	4V	0.47uF					4000	
81-LLL185C70G105M01L	LLL185C70G105MA01L	0306	Standard	X7S	4V	1.0uF					4000	
81-LLL185C70G225ME1L	LLL185C70G225ME01L	0306	Standard	X7S	4V	2.2uF					4000	
81-LLL215R71H222MA1L	LLL215R71H222MA11L	0508	Low Profile	X7R	50V	2,200pF					4000	
81-LLL216R71H472M01L	LLL216R71H472MA01L	0508	Standard	X7R	50V	4,700pF					3000	
81-LLL215R71H103M11L	LLL215R71H103MA11L	0508	Low Profile	X7R	50V	0.01uF					4000	
81-LLL216R71H103M01L	LLL216R71H103MA01L	0508	Standard	X7R	50V	0.01uF					4000	
81-LLL215R71E223M11L	LLL215R71E223MA11L	0508	Low Profile	X7R	25V	0.022uF					4000	
81-LLL216R71H223M01L	LLL216R71H223MA01L	0508	Standard	X7R	50V	0.022uF					3000	
81-LLL215R71C473M11L	LLL215R71C473MA11L	0508	Low Profile	X7R	16V	0.047uF					4000	
81-LLL216R71E473M01L	LLL216R71E473MA01L	0508	Standard	X7R	25V	0.047uF					4000	
81-LLL215R71C104M11L	LLL215R71C104MA11L	0508	Low Profile	X7R	16V	0.1uF					4000	
81-LLL216R71E104MA1L	LLL216R71E104MA01L	0508	Standard	X7R	25V	0.1uF					4000	
81-LLL215R71A224M11L	LLL215R71A224MA11L	0508	Low Profile	X7R	10V	0.22uF					4000	
81-LLL216R71A224M01L	LLL216R71A224MA01L	0508	Standard	X7R	10V	0.22uF					4000	
81-LLL215R70J474M11L	LLL215R70J474MA11L	0508	Low Profile	X7R	6.3V	0.47uF					4000	
81-LLL219R71A474M01L	LLL219R71A474MA01L	0508	Standard	X7R	10V	0.47uF					3000	
81-LLL219R70J105M01L	LLL219R70J105MA01L	0508	Standard	X7R	6.3V	1.0uF					3000	
81-LLL215C70G105M11L	LLL215C70G105MA11L	0508	Low Profile	X7S	4V	1.0uF					4000	
81-LLL219C70G225M01L	LLL219C70G225MA01L	0508	Standard	X7S	4V	2.2uF					3000	
81-LLL315R71H103M11L	LLL315R71H103MA11L	0612	Low Profile	X7R	50V	0.01uF					4000	
81-LLL317R71H103M01L	LLL317R71H103MA01L	0612	Standard	X7R	50V	0.01uF					4000	
81-LLL315R71H223M11L	LLL315R71H223MA11L	0612	Low Profile	X7R	50V	0.022uF					4000	
81-LLL317R71H223M01L	LLL317R71H223MA01L	0612	Standard	X7R	50V	0.022uF					4000	
81-LLL315R71E473MA11	LLL315R71E473MA11L	0612	Low Profile	X7R	25V	0.047uF					4000	
81-LLL317R71H473M01L	LLL317R71H473MA01L	0612	Standard	X7R	50V	0.047uF					4000	
81-LLL315R71E104M11L	LLL315R71E104MA11L	0612	Low Profile	X7R	25V	0.1uF					4000	
81-LLL317R71E104M01L	LLL317R71E104MA01L	0612	Standard	X7R	25V	0.1uF					4000	
81-LLL31MR71H104M01L	LLL31MR71H104MA01L	0612	Standard	X7R	50V	0.1uF					3000	
81-LLL315R71C224M11L	LLL315R71C224MA11L	0612	Low Profile	X7R	16V	0.22uF					4000	
81-LLL317R71C224M01L	LLL317R71C224MA01L	0612	Standard	X7R	16V	0.22uF					3000	
81-LLL31MR71E224M01L	LLL31MR71E224MA01L	0612	Standard	X7R	25V	0.22uF					3000	
81-LLL315R71A474M11L	LLL315R71A474MA11L	0612	Low Profile	X7R	10V	0.47uF					4000	
81-LLL317R71C474M01L	LLL317R71C474MA01L	0612	Standard	X7R	16V	0.47uF					3000	
81-LLL31MR71E474M01L	LLL31MR71E474MA01L	0612	Standard	X7R	25V	0.47uF					4000	
81-LLL317R71A105M01L	LLL317R71A105MA01L	0612	Standard	X7R	10V	1.0uF					4000	
81-LLL31MR71C105M01L	LLL31MR71C105MA01L	0612	Standard	X7R	16V	1.0uF					3000	
81-LLL317R70J225MA1L	LLL317R70J225MA01L	0612	Standard	X7R	6.3V	2.2uF					4000	
81-LLL31MR71A225M01L	LLL31MR71A225MA01L	0612	Standard	X7R	10V	2.2uF					3000	
81-LLL31MR70J475M01L	LLL31MR70J475MA01L	0612	Standard	X7R	6.3V	4.7uF					3000	
81-LLL31BC70G106M01L	LLL31BC70G106MA01L	0612	Standard	X7R	4V	10uF					3000	