LGA Low Inductance Capacitors

0204/0306 Land Grid Array





Land Grid Array (LGA) capacitors are the latest family of low inductance MLCCs from KYOCERA AVX. These new LGA products are the third low inductance family developed by KYOCERA AVX. The innovative LGA technology sets a new standard for low inductance MLCC performance.

Our initial 2 terminal versions of LGA technology deliver the performance of an 8 terminal IDC low inductance MLCC with a number of advantages including:

- · Simplified layout of 2 large solder pads compared to 8 small pads for IDCs
- Opportunity to reduce PCB or substrate contribution to system ESL by using multiple parallel vias in solder pads
- Advanced FCT manufacturing process used to create uniformly flat terminations on the capacitor that resist "tombstoning"
- Better solder joint reliability

APPLICATIONS

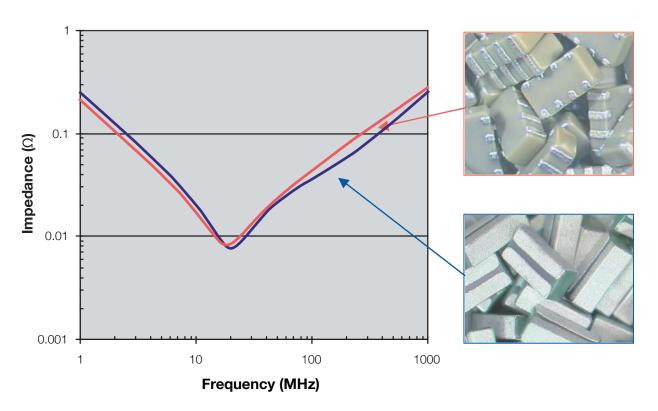
Semiconductor Packages

- Microprocessors/CPUs
- Graphics Processors/GPUs
- Chipsets
- FPGAs
- ASICs

Board Level Device Decoupling

- · Frequencies of 300 MHz or more
- ICs drawing 15W or more
- Low voltages
- · High speed buses

0306 2 TERMINAL LGA COMPARISON WITH 0306 8 TERMINAL IDC



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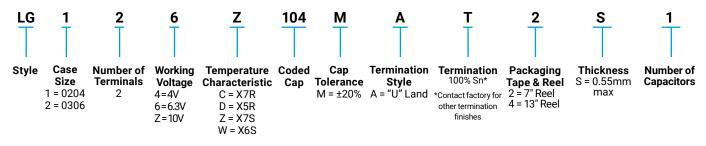
LGA Low Inductance Capacitors

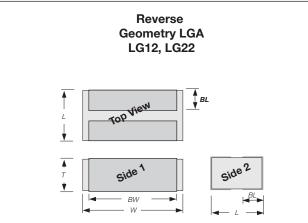


0204/0306 Land Grid Array

SIZE	LG12 (0204)				LG22 (0306)										
Length mm (in.)	0.50 (0.020)				0.76 (0.030)										
Width mm (in.)	1.00 (0.039)				1.60 (0.063)										
Temp. Char.	X5R (D) X7S (Z) X6S (W)		X7R (C) X5R (D)				X7S (Z)		X6S (W)						
Working Voltage	6.3	4	6.3	4	6.3	4	10	6.3	4	6.3	4	6.3	4	6.3	4
	(6)	(4)	(6)	(4)	(6)	(4)	(Z)	(6)	(4)	(6)	(4)	(6)	(4)	(6)	(4)
Cap (µF) 0.010 (103)															
0.022 (223)															
0.047 (473)															
0.100 (104)															
0.220 (224)															
0.330 (334)															
0.470 (474)															
1.000 (105)															
2.200 (225)															
	= X7R = X5R		= X7S			= X6S									

HOW TO ORDER





PART DIMENSIONS

Series	Series L		т	BW	BL		
LG12 (0204)	0.5 ± 0.05 (0.020±0.002)	1.00 ± 0.10 (0.039 ± 0.004)	0.50 ± 0.05 (0.020 ± 0.002)	0.8 ± 0.10 (0.031 ± 0.004)	0.13 ± 0.08 (0.005 ± 0.003)		
LG22 (0306)	0.76 ± 0.10 (0.030 ± 0.004)	1.60 ± 0.10 (0.063 ± 0.004)	0.50 ± 0.05 (0.020 ± 0.002)	1.50 ±0.10 (0.059 ± 0.004)	0.28 ± 0.08 (0.011 ± 0.003)		

RECOMMENDED SOLDER PAD DIMENSIONS

MM (INCHES)

MM (INCHES)

 Series	PL	PW1	G
 LG12 (0204)	0.50 (0.020)	1.00 (0.039)	0.20 (0.008)
LG22 (0306)	0.65 (0.026)	1.50 (0.059)	0.20 (0.008)



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TDS-SMDMLCC-0024 | Rev 1

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

KYOCERA AVX:

 LG126Z103MAT2S1\4K
 LG126Z473MAT2S1
 LG126Z223MAT2S1
 LGC24D225MAT2S1
 LGC26D105MAT2S1

 LG224Z474MAT2S1
 LG226C103MAT2S1
 LG224Z334MAT2S1
 LG126Z104MAT2S1
 LG126D104MAT2S1

 LG226C104MAT2S1
 LG224Z224MAT2S1
 LG226D224MAT2S1
 LG226Z104MAT2S1
 LG126Z103MAT2S1

 LG226D104MAT2S1
 LG226D24MAT2S1
 LG226Z104MAT2S1
 LG126Z103MAT2S1

 LG226D104MAT2S1
 LG226D474MAT2S1
 LG126D104MAT2S1
 LG126Z103MAT2S1