

## Multilayer Ceramic Chip Capacitors

May 23, 2024  
Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (1/6)

### Circuit Diagram



### Circuit Parameters

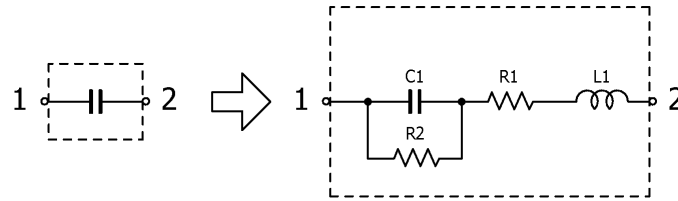
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012C0G2W101J060AA	100	0.480	0.1962	10.0
C2012C0G2W101K060AA	100	0.480	0.1962	10.0
C2012C0G2W151J060AA	150	0.480	0.1174	10.0
C2012C0G2W151K060AA	150	0.480	0.1174	10.0
C2012C0G2W221J060AA	220	0.480	0.1338	10.0
C2012C0G2W221K060AA	220	0.480	0.1338	10.0
C2012C0G2W331J060AA	330	0.480	0.0980	10.0
C2012C0G2W331K060AA	330	0.480	0.0980	10.0
C2012C0G2W471J060AA	470	0.480	0.0792	10.0
C2012C0G2W471K060AA	470	0.480	0.0792	10.0
C2012C0G2W681J060AA	680	0.480	0.0511	10.0
C2012C0G2W681K060AA	680	0.480	0.0511	10.0
C2012C0G2W102J060AA	1,000	0.480	0.0399	10.0
C2012C0G2W102K060AA	1,000	0.480	0.0399	10.0
C2012C0G2A102J060AA	1,000	0.480	0.0254	10.0
C2012C0G2E102J085AA	1,000	0.480	0.0345	10.0
C2012C0G2E102K085AA	1,000	0.480	0.0345	10.0
C2012X7R2A225K125AC	2,200,000	0.480	0.0048	0.0450
C2012X5R2E102K085AA	1,000	0.480	0.2786	10.0
C2012X5R2E102M085AA	1,000	0.480	0.2786	10.0
C2012X7R2E102K085AA	1,000	0.480	0.2786	10.0
C2012X7R2E102M085AA	1,000	0.480	0.2786	10.0
C2012X7R2A102K085AA	1,000	0.480	0.2786	10.0
C2012X7R2A102M085AA	1,000	0.480	0.2786	10.0
C2012C0G2W122J060AA	1,200	0.480	0.0511	10.0
C2012C0G2W122K060AA	1,200	0.480	0.0511	10.0
C2012C0G2A122J060AA	1,200	0.480	0.0879	10.0
C2012C0G2E122J085AA	1,200	0.480	0.0349	10.0
C2012C0G2E122K085AA	1,200	0.480	0.0349	10.0
C2012C0G2A152J060AA	1,500	0.480	0.0510	10.0
C2012C0G2A152K060AA	1,500	0.480	0.0510	10.0
C2012C0G2W152J085AA	1,500	0.480	0.0325	10.0
C2012C0G2W152K085AA	1,500	0.480	0.0325	10.0
C2012C0G2E152J085AA	1,500	0.480	0.0371	10.0
C2012C0G2E152K085AA	1,500	0.480	0.0371	10.0
C2012X5R2E152K085AA	1,500	0.480	0.1539	10.0

## Multilayer Ceramic Chip Capacitors

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Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (2/6)

### Circuit Diagram



### Circuit Parameters

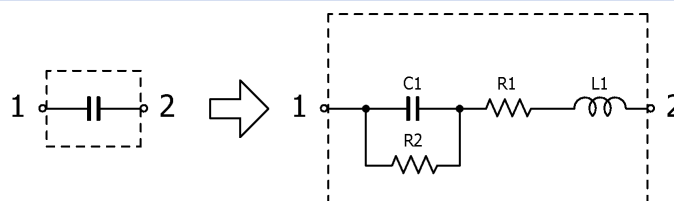
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012X5R2E152M085AA	1,500	0.480	0.1539	10.0
C2012X7R2E152K085AA	1,500	0.480	0.1539	10.0
C2012X7R2E152M085AA	1,500	0.480	0.1539	10.0
C2012X7R2A152K085AA	1,500	0.480	0.1539	10.0
C2012X7R2A152M085AA	1,500	0.480	0.1539	10.0
C2012C0G2W182J085AA	1,800	0.480	0.0483	10.0
C2012C0G2W182K085AA	1,800	0.480	0.0483	10.0
C2012C0G2A182J085AA	1,800	0.480	0.0301	10.0
C2012C0G2A182K085AA	1,800	0.480	0.0301	10.0
C2012C0G2E182J125AA	1,800	0.480	0.0285	10.0
C2012C0G2E182K125AA	1,800	0.480	0.0285	10.0
C2012C0G2W222J085AA	2,200	0.480	0.0444	10.0
C2012C0G2W222K085AA	2,200	0.480	0.0444	10.0
C2012C0G2A222J085AA	2,200	0.480	0.0243	10.0
C2012C0G2A222K085AA	2,200	0.480	0.0243	10.0
C2012X5R2E222K085AA	2,200	0.480	0.2020	10.0
C2012X5R2E222M085AA	2,200	0.480	0.2020	10.0
C2012X7R2E222K085AA	2,200	0.480	0.2020	10.0
C2012X7R2E222M085AA	2,200	0.480	0.2020	10.0
C2012X7R2A222K085AA	2,200	0.480	0.2020	10.0
C2012X7R2A222M085AA	2,200	0.480	0.2020	10.0
C2012C0G2E222J125AA	2,200	0.480	0.0248	10.0
C2012C0G2E222K125AA	2,200	0.480	0.0248	10.0
C2012C0G2W272J125AA	2,700	0.480	0.0214	10.0
C2012C0G2W272K125AA	2,700	0.480	0.0214	10.0
C2012C0G2E272J125AA	2,700	0.480	0.0237	10.0
C2012C0G2E272K125AA	2,700	0.480	0.0237	10.0
C2012C0G2A272J125AA	2,700	0.480	0.0237	10.0
C2012C0G2A272K125AA	2,700	0.480	0.0237	10.0
C2012C0G2E332J085AA	3,300	0.480	0.0294	10.0
C2012C0G2E332K085AA	3,300	0.480	0.0294	10.0
C2012X5R2E332K085AA	3,300	0.480	0.1565	10.0
C2012X5R2E332M085AA	3,300	0.480	0.1565	10.0
C2012X7R2E332K085AA	3,300	0.480	0.1565	10.0
C2012X7R2E332M085AA	3,300	0.480	0.1565	10.0
C2012X7R2A332K085AA	3,300	0.480	0.1565	10.0

## Multilayer Ceramic Chip Capacitors

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Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (3/6)

### Circuit Diagram



### Circuit Parameters

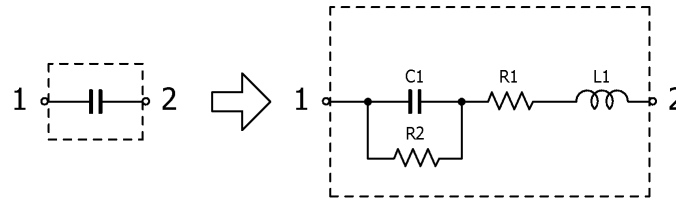
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012X7R2A332M085AA	3,300	0.480	0.1565	10.0
C2012C0G2W332J125AA	3,300	0.480	0.0220	10.0
C2012C0G2W332K125AA	3,300	0.480	0.0220	10.0
C2012C0G2A332J125AA	3,300	0.480	0.0210	10.0
C2012C0G2A332K125AA	3,300	0.480	0.0210	10.0
C2012C0G2W392J125AA	3,900	0.480	0.0141	10.0
C2012C0G2W392K125AA	3,900	0.480	0.0141	10.0
C2012C0G2E392J125AA	3,900	0.480	0.0141	10.0
C2012C0G2E392K125AA	3,900	0.480	0.0141	10.0
C2012C0G2A392J125AA	3,900	0.480	0.0184	10.0
C2012C0G2A392K125AA	3,900	0.480	0.0184	10.0
C2012X5R2E472K085AA	4,700	0.480	0.1179	10.0
C2012X5R2E472M085AA	4,700	0.480	0.1179	10.0
C2012X7R2E472K085AA	4,700	0.480	0.1179	10.0
C2012X7R2E472M085AA	4,700	0.480	0.1179	10.0
C2012X7R2A472K085AA	4,700	0.480	0.1179	10.0
C2012X7R2A472M085AA	4,700	0.480	0.1179	10.0
C2012C0G2W472J125AA	4,700	0.480	0.0151	10.0
C2012C0G2W472K125AA	4,700	0.480	0.0151	10.0
C2012C0G2E472J125AA	4,700	0.480	0.0151	10.0
C2012C0G2E472K125AA	4,700	0.480	0.0151	10.0
C2012C0G2A472J125AA	4,700	0.480	0.0197	10.0
C2012C0G2A472K125AA	4,700	0.480	0.0197	10.0
C2012C0G2W562J125AA	5,600	0.480	0.0205	10.0
C2012C0G2W562K125AA	5,600	0.480	0.0205	10.0
C2012C0G2E562J125AA	5,600	0.480	0.0275	10.0
C2012C0G2E562K125AA	5,600	0.480	0.0275	10.0
C2012C0G2A562J125AA	5,600	0.480	0.0275	10.0
C2012C0G2A562K125AA	5,600	0.480	0.0275	10.0
C2012X7R2A682K085AA	6,800	0.480	0.0810	10.0
C2012X7R2A682M085AA	6,800	0.480	0.0810	10.0
C2012C0G2E682J125AA	6,800	0.480	0.0225	10.0
C2012C0G2E682K125AA	6,800	0.480	0.0225	10.0
C2012C0G2A682J125AA	6,800	0.480	0.0225	10.0
C2012C0G2A682K125AA	6,800	0.480	0.0225	10.0
C2012X5R2E682K125AA	6,800	0.480	0.0837	10.0

## Multilayer Ceramic Chip Capacitors

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Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (4/6)

### Circuit Diagram



### Circuit Parameters

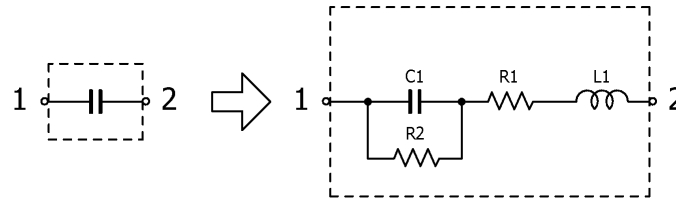
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012X5R2E682M125AA	6,800	0.480	0.0837	10.0
C2012X7R2E682K125AA	6,800	0.480	0.0837	10.0
C2012X7R2E682M125AA	6,800	0.480	0.0837	10.0
C2012C0G2E822J125AA	8,200	0.480	0.0194	10.0
C2012C0G2E822K125AA	8,200	0.480	0.0194	10.0
C2012C0G2A822J125AA	8,200	0.480	0.0194	10.0
C2012C0G2A822K125AA	8,200	0.480	0.0194	10.0
C2012X7R2A103K085AA	10,000	0.480	0.0569	10.0
C2012X7R2A103M085AA	10,000	0.480	0.0569	10.0
C2012X7T2W103K085AA	10,000	0.480	0.0551	10.0
C2012X7T2W103M085AA	10,000	0.480	0.0551	10.0
C2012X7T2V103K085AA	10,000	0.480	0.0551	10.0
C2012X7T2V103M085AA	10,000	0.480	0.0551	10.0
C2012C0G2E103J125AA	10,000	0.480	0.0169	10.0
C2012C0G2E103K125AA	10,000	0.480	0.0169	10.0
C2012C0G2A103J125AA	10,000	0.480	0.0169	10.0
C2012C0G2A103K125AA	10,000	0.480	0.0169	10.0
C2012X5R2E103K125AA	10,000	0.480	0.0680	10.0
C2012X5R2E103M125AA	10,000	0.480	0.0680	10.0
C2012X7R2E103K125AA	10,000	0.480	0.0680	10.0
C2012X7R2E103M125AA	10,000	0.480	0.0680	10.0
C2012C0G2A153J085AC	15,000	0.480	0.0138	10.0
C2012C0G2A153K085AC	15,000	0.480	0.0138	10.0
C2012X7T2W153K085AA	15,000	0.480	0.0372	10.0
C2012X7T2W153M085AA	15,000	0.480	0.0372	10.0
C2012X7T2V153K085AA	15,000	0.480	0.0372	10.0
C2012X7T2V153M085AA	15,000	0.480	0.0372	10.0
C2012X5R2E153K125AA	15,000	0.480	0.0478	10.0
C2012X5R2E153M125AA	15,000	0.480	0.0478	10.0
C2012X7R2E153K125AA	15,000	0.480	0.0478	10.0
C2012X7R2E153M125AA	15,000	0.480	0.0478	10.0
C2012X7R2A153K125AA	15,000	0.480	0.0478	10.0
C2012X7R2A153M125AA	15,000	0.480	0.0478	10.0
C2012C0G2A223J125AC	22,000	0.480	0.0108	10.0
C2012C0G2A223K125AC	22,000	0.480	0.0108	10.0
C2012X5R2E223K125AA	22,000	0.480	0.0305	10.0

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Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (5/6)

### Circuit Diagram



### Circuit Parameters

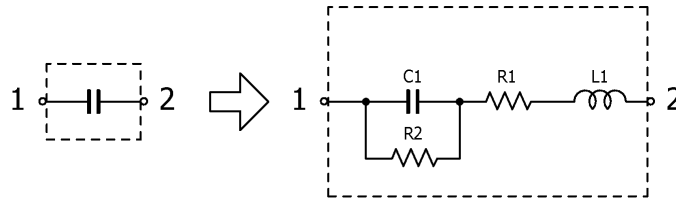
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012X5R2E223M125AA	22,000	0.480	0.0305	10.0
C2012X7R2E223K125AA	22,000	0.480	0.0305	10.0
C2012X7R2E223M125AA	22,000	0.480	0.0305	10.0
C2012X7R2A223K125AA	22,000	0.480	0.0305	10.0
C2012X7R2A223M125AA	22,000	0.480	0.0305	10.0
C2012X7T2W223K125AA	22,000	0.480	0.0306	10.0
C2012X7T2W223M125AA	22,000	0.480	0.0306	10.0
C2012X7T2V223K125AA	22,000	0.480	0.0306	10.0
C2012X7T2V223M125AA	22,000	0.480	0.0306	10.0
C2012C0G2A333J125AC	33,000	0.480	0.0090	10.0
C2012C0G2A333K125AC	33,000	0.480	0.0090	10.0
C2012X5R2A333K125AA	33,000	0.480	0.0323	10.0
C2012X5R2A333M125AA	33,000	0.480	0.0323	10.0
C2012X7R2A333K125AA	33,000	0.480	0.0323	10.0
C2012X7R2A333M125AA	33,000	0.480	0.0323	10.0
C2012X7T2W333K125AA	33,000	0.480	0.0247	10.0
C2012X7T2W333M125AA	33,000	0.480	0.0247	10.0
C2012X7T2V333K125AA	33,000	0.480	0.0247	10.0
C2012X7T2V333M125AA	33,000	0.480	0.0247	10.0
C2012X7T2E333K125AA	33,000	0.480	0.0247	10.0
C2012X7T2E333M125AA	33,000	0.480	0.0247	10.0
C2012X5R2A473K125AA	47,000	0.480	0.0210	10.0
C2012X5R2A473M125AA	47,000	0.480	0.0210	10.0
C2012X7R2A473K125AA	47,000	0.480	0.0210	10.0
C2012X7R2A473M125AA	47,000	0.480	0.0210	10.0
C2012X7T2W473K125AA	47,000	0.480	0.0210	10.0
C2012X7T2W473M125AA	47,000	0.480	0.0210	10.0
C2012X7T2V473K125AA	47,000	0.480	0.0210	10.0
C2012X7T2V473M125AA	47,000	0.480	0.0210	10.0
C2012X7T2E473K125AA	47,000	0.480	0.0210	10.0
C2012X7T2E473M125AA	47,000	0.480	0.0210	10.0
C2012X5R2A683K085AA	68,000	0.480	0.0140	7.35
C2012X5R2A683M085AA	68,000	0.480	0.0140	7.35
C2012X7R2A683K085AA	68,000	0.480	0.0140	7.35
C2012X7R2A683M085AA	68,000	0.480	0.0140	7.35
C2012X7T2E683K125AA	68,000	0.480	0.0216	7.35

## Multilayer Ceramic Chip Capacitors

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Simple Model

Commercial Grade, Mid Voltage (100 to 630V) / C2012 series (6/6)

### Circuit Diagram



### Circuit Parameters

Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
C2012X7T2E683M125AA	68,000	0.480	0.0216	7.35
C2012X5R2A104K125AA	100,000	0.480	0.0157	5.00
C2012X5R2A104M125AA	100,000	0.480	0.0157	5.00
C2012X7R2A104K125AA	100,000	0.480	0.0157	5.00
C2012X7R2A104M125AA	100,000	0.480	0.0157	5.00
C2012X7T2E104K125AA	100,000	0.480	0.0168	5.00
C2012X7T2E104M125AA	100,000	0.480	0.0168	5.00
C2012X7S2A154K085AB	150,000	0.480	0.0300	3.33
C2012X7S2A154M085AB	150,000	0.480	0.0300	3.33
C2012X7S2A224K085AB	220,000	0.480	0.0178	2.27
C2012X7S2A224M085AB	220,000	0.480	0.0178	2.27
C2012X7S2A334K125AB	330,000	0.480	0.0117	1.52
C2012X7S2A334M125AB	330,000	0.480	0.0117	1.52
C2012X7S2A474K125AB	470,000	0.480	0.0094	1.06
C2012X7S2A474M125AB	470,000	0.480	0.0094	1.06
C2012X7S2A684K125AB	680,000	0.480	0.0076	0.735
C2012X7S2A684M125AB	680,000	0.480	0.0076	0.735
C2012X7S2A105K125AB	1,000,000	0.480	0.0060	0.500
C2012X7S2A105M125AB	1,000,000	0.480	0.0060	0.500
C2012X5R2A475K125AC	4,700,000	0.480	0.0033	0.106