

Multilayer Ceramic Chip Capacitors

May 23, 2024
Simple Model

Automotive Grade, General (Up to 75V) / CGA3 series (1/7)

Circuit Diagram



Circuit Parameters

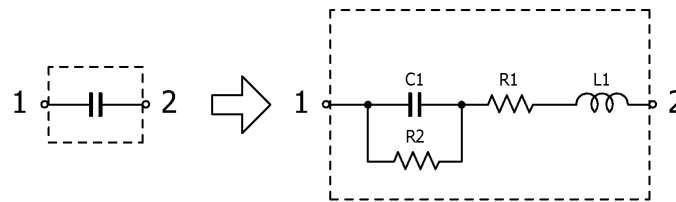
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2C0G1H010C080AA	1	0.420	0.9827	10.0
CGA3E2C0G1H1R5C080AA	1.5	0.420	1.2185	10.0
CGA3E2C0G1H020C080AA	2	0.420	0.9188	10.0
CGA3E2C0G1H2R2C080AA	2.2	0.420	0.6028	10.0
CGA3E2C0G1H030C080AA	3	0.420	0.7233	10.0
CGA3E2C0G1H3R3C080AA	3.3	0.420	0.4953	10.0
CGA3E2C0G1H040C080AA	4	0.420	0.5992	10.0
CGA3E2C0G1H4R7C080AA	4.7	0.420	0.3666	10.0
CGA3E2C0G1H050C080AA	5	0.420	0.3921	10.0
CGA3E2C0G1H060D080AA	6	0.420	0.3985	10.0
CGA3E2C0G1H6R8D080AA	6.8	0.420	0.3038	10.0
CGA3E2C0G1H070D080AA	7	0.420	0.4918	10.0
CGA3E2C0G1H080D080AA	8	0.420	0.3141	10.0
CGA3E2C0G1H090D080AA	9	0.420	0.4633	10.0
CGA3E2C0G1H100D080AA	10	0.420	0.3084	10.0
CGA3E2C0G1H120J080AA	12	0.420	0.3580	10.0
CGA3E2C0G1H150J080AA	15	0.420	0.3727	10.0
CGA3E2C0G1H180J080AA	18	0.420	0.3009	10.0
CGA3E2C0G1H220J080AA	22	0.420	0.2911	10.0
CGA3E2C0G1H270J080AA	27	0.420	0.2376	10.0
CGA3E2C0G1H330J080AA	33	0.420	0.2471	10.0
CGA3E2C0G1H390J080AA	39	0.420	0.2362	10.0
CGA3E2C0G1H470J080AA	47	0.420	0.2173	10.0
CGA3E2C0G1H560J080AA	56	0.420	0.1843	10.0
CGA3E2C0G1H680J080AA	68	0.420	0.1473	10.0
CGA3E2C0G1H820J080AA	82	0.420	0.1633	10.0
CGA3E2C0G1H101J080AA	100	0.420	0.1402	10.0
CGA3E2C0G1H121J080AA	120	0.420	0.0795	10.0
CGA3E2C0G1H151J080AA	150	0.420	0.0807	10.0
CGA3E2C0G1H181J080AA	180	0.420	0.0659	10.0
CGA3E2C0G1H221J080AA	220	0.420	0.0681	10.0
CGA3E2C0G1H271J080AA	270	0.420	0.0834	10.0
CGA3E2C0G1H331J080AA	330	0.420	0.0770	10.0
CGA3E2C0G1H391J080AA	390	0.420	0.0602	10.0
CGA3E2C0G1H471J080AA	470	0.420	0.0560	10.0
CGA3E2C0G1H561J080AA	560	0.420	0.0566	10.0

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Circuit Diagram



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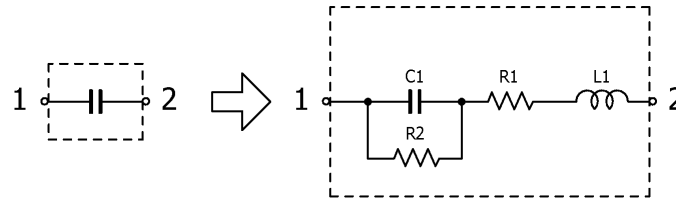
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2C0G1H681J080AA	680	0.420	0.0473	10.0
CGA3E2C0G1H821J080AA	820	0.420	0.0380	10.0
CGA3E2C0G1H102J080AA	1,000	0.420	0.0396	10.0
CGA3E2X5R1H102K080AA	1,000	0.420	0.3071	10.0
CGA3E2X5R1H102M080AA	1,000	0.420	0.3071	10.0
CGA3E2X7R1H102K080AA	1,000	0.420	0.3071	10.0
CGA3E2X7R1H102M080AA	1,000	0.420	0.2660	10.0
CGA3E2C0G1H122J080AA	1,200	0.420	0.0366	10.0
CGA3E2C0G1H152J080AA	1,500	0.420	0.0284	10.0
CGA3E2X5R1H152K080AA	1,500	0.420	0.1857	10.0
CGA3E2X5R1H152M080AA	1,500	0.420	0.1857	10.0
CGA3E2X7R1H152K080AA	1,500	0.420	0.1857	10.0
CGA3E2X7R1H152M080AA	1,500	0.420	0.1857	10.0
CGA3E2C0G1H182J080AA	1,800	0.420	0.0256	10.0
CGA3E2C0G1H222J080AA	2,200	0.420	0.0310	10.0
CGA3E2X5R1H222K080AA	2,200	0.420	0.1613	10.0
CGA3E2X5R1H222M080AA	2,200	0.420	0.1613	10.0
CGA3E2X7R1H222K080AA	2,200	0.420	0.1613	10.0
CGA3E2X7R1H222M080AA	2,200	0.420	0.1559	10.0
CGA3E2C0G1H272J080AA	2,700	0.420	0.0249	10.0
CGA3E2C0G1H332J080AA	3,300	0.420	0.0218	10.0
CGA3E2X5R1H332K080AA	3,300	0.420	0.1117	10.0
CGA3E2X5R1H332M080AA	3,300	0.420	0.1117	10.0
CGA3E2X7R1H332K080AA	3,300	0.420	0.1117	10.0
CGA3E2X7R1H332M080AA	3,300	0.420	0.1312	10.0
CGA3E2C0G1H392J080AA	3,900	0.420	0.0233	10.0
CGA3E2C0G1H472J080AA	4,700	0.420	0.0255	10.0
CGA3E2X5R1H472K080AA	4,700	0.420	0.0906	10.0
CGA3E2X5R1H472M080AA	4,700	0.420	0.0906	10.0
CGA3E2X7R1H472K080AA	4,700	0.420	0.0906	10.0
CGA3E2X7R1H472M080AA	4,700	0.420	0.0990	10.0
CGA3E2C0G1H562J080AA	5,600	0.420	0.0263	10.0
CGA3E2C0G1H682J080AA	6,800	0.420	0.0173	10.0
CGA3E2X5R1H682K080AA	6,800	0.420	0.0873	10.0
CGA3E2X5R1H682M080AA	6,800	0.420	0.0873	10.0
CGA3E2X7R1H682K080AA	6,800	0.420	0.0873	10.0

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Circuit Diagram



Circuit Parameters

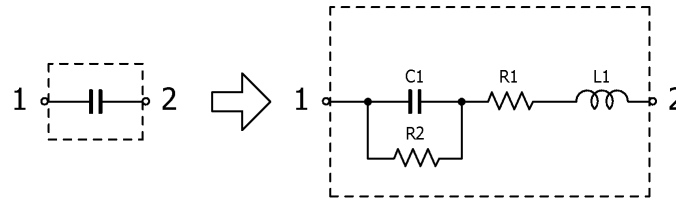
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2X7R1H682M080AA	6,800	0.420	0.0873	10.0
CGA3E2C0G1H822J080AA	8,200	0.420	0.0237	10.0
CGA3E2C0G1H103J080AA	10,000	0.420	0.0160	10.0
CGA3E2X5R1H103K080AA	10,000	0.420	0.0538	10.0
CGA3E2X5R1H103M080AA	10,000	0.420	0.0538	10.0
CGA3E2X7R1H103K080AA	10,000	0.420	0.0538	10.0
CGA3E2X7R1H103M080AA	10,000	0.420	0.0538	10.0
CGA3E2X5R1H153K080AA	15,000	0.420	0.0462	10.0
CGA3E2X5R1H153M080AA	15,000	0.420	0.0462	10.0
CGA3E2X7R1H153K080AA	15,000	0.420	0.0462	10.0
CGA3E2X7R1H153M080AA	15,000	0.420	0.0462	10.0
CGA3E2X5R1H223K080AA	22,000	0.420	0.0377	10.0
CGA3E2X5R1H223M080AA	22,000	0.420	0.0377	10.0
CGA3E2X7R1H223K080AA	22,000	0.420	0.0377	10.0
CGA3E2X7R1H223M080AA	22,000	0.420	0.0377	10.0
CGA3E2X5R1H333K080AA	33,000	0.420	0.0294	10.0
CGA3E2X5R1H333M080AA	33,000	0.420	0.0294	10.0
CGA3E2X7R1H333K080AA	33,000	0.420	0.0294	10.0
CGA3E2X7R1H333M080AA	33,000	0.420	0.0294	10.0
CGA3E2X5R1H473K080AA	47,000	0.420	0.0232	10.0
CGA3E2X5R1H473M080AA	47,000	0.420	0.0232	10.0
CGA3E2X7R1H473K080AA	47,000	0.420	0.0232	10.0
CGA3E2X7R1H473M080AA	47,000	0.420	0.0232	10.0
CGA3E2X5R1H683K080AA	68,000	0.420	0.0186	7.35
CGA3E2X5R1H683M080AA	68,000	0.420	0.0186	7.35
CGA3E2X7R1H683K080AA	68,000	0.420	0.0186	7.35
CGA3E2X7R1H683M080AA	68,000	0.420	0.0186	7.35
CGA3E2X5R1H104K080AA	100,000	0.420	0.0163	5.00
CGA3E2X5R1H104M080AA	100,000	0.420	0.0163	5.00
CGA3E2X5R1E104K080AA	100,000	0.420	0.0163	5.00
CGA3E2X5R1E104M080AA	100,000	0.420	0.0163	5.00
CGA3E2X7R1H104K080AA	100,000	0.420	0.0163	5.00
CGA3E2X7R1H104M080AA	100,000	0.420	0.0163	5.00
CGA3E2X7R1E104K080AA	100,000	0.420	0.0163	5.00
CGA3E2X7R1E104M080AA	100,000	0.420	0.0163	5.00
CGA3E3X5R1H154K080AB	150,000	0.420	0.0163	3.33

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Circuit Diagram



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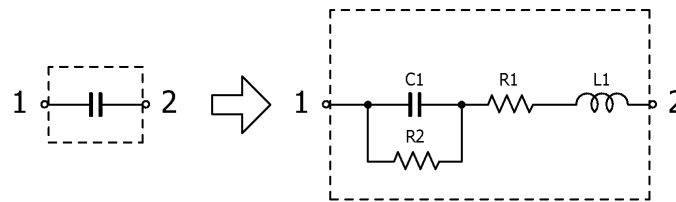
Part No.	C1[μ F]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E3X5R1H154M080AB	150,000	0.420	0.0163	3.33
CGA3E3X5R1V154K080AB	150,000	0.420	0.0163	3.33
CGA3E3X5R1V154M080AB	150,000	0.420	0.0163	3.33
CGA3E2X5R1E154K080AA	150,000	0.420	0.0131	3.33
CGA3E2X5R1E154M080AA	150,000	0.420	0.0131	3.33
CGA3E3X7R1H154K080AB	150,000	0.420	0.0163	3.33
CGA3E3X7R1H154M080AB	150,000	0.420	0.0163	3.33
CGA3E3X7R1V154K080AB	150,000	0.420	0.0163	3.33
CGA3E3X7R1V154M080AB	150,000	0.420	0.0163	3.33
CGA3E2X7R1E154K080AA	150,000	0.420	0.0131	3.33
CGA3E2X7R1E154M080AA	150,000	0.420	0.0131	3.33
CGA3E3X5R1H224K080AB	220,000	0.420	0.0151	2.27
CGA3E3X5R1H224M080AB	220,000	0.420	0.0151	2.27
CGA3E3X5R1V224K080AB	220,000	0.420	0.0151	2.27
CGA3E3X5R1V224M080AB	220,000	0.420	0.0151	2.27
CGA3E2X5R1E224K080AA	220,000	0.420	0.0125	2.27
CGA3E2X5R1E224M080AA	220,000	0.420	0.0125	2.27
CGA3E2X5R1C224K080AA	220,000	0.420	0.0125	0.454
CGA3E2X5R1C224M080AA	220,000	0.420	0.0125	0.454
CGA3E3X7R1H224K080AB	220,000	0.420	0.0128	2.27
CGA3E3X7R1H224M080AB	220,000	0.420	0.0151	2.27
CGA3E3X7R1V224K080AB	220,000	0.420	0.0151	2.27
CGA3E3X7R1V224M080AB	220,000	0.420	0.0151	2.27
CGA3E1X7R1E224K080AC	220,000	0.420	0.0125	2.27
CGA3E1X7R1E224M080AC	220,000	0.420	0.0125	2.27
CGA3E2X7R1C224K080AA	220,000	0.420	0.0125	0.454
CGA3E2X7R1C224M080AA	220,000	0.420	0.0125	0.454
CGA3E3X5R1H334K080AB	330,000	0.420	0.0122	1.52
CGA3E3X5R1H334M080AB	330,000	0.420	0.0122	1.52
CGA3E3X5R1V334K080AB	330,000	0.420	0.0122	1.52
CGA3E3X5R1V334M080AB	330,000	0.420	0.0122	1.52
CGA3E3X5R1E334K080AB	330,000	0.420	0.0122	1.52
CGA3E3X5R1E334M080AB	330,000	0.420	0.0122	1.52
CGA3E2X5R1C334K080AA	330,000	0.420	0.0106	0.303
CGA3E2X5R1C334M080AA	330,000	0.420	0.0106	0.303
CGA3E2X5R1A334K080AA	330,000	0.420	0.0180	0.303

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Circuit Diagram



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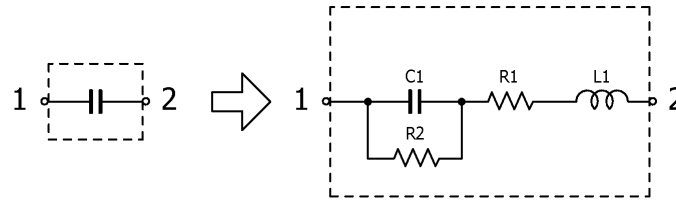
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2X5R1A334M080AA	330,000	0.420	0.0180	0.303
CGA3E3X7R1H334K080AB	330,000	0.420	0.0147	1.52
CGA3E3X7R1H334M080AB	330,000	0.420	0.0147	1.52
CGA3E1X7R1V334K080AC	330,000	0.420	0.0122	1.52
CGA3E1X7R1V334M080AC	330,000	0.420	0.0122	1.52
CGA3E3X7R1E334K080AB	330,000	0.420	0.0122	1.52
CGA3E3X7R1E334M080AB	330,000	0.420	0.0122	1.52
CGA3E1X7R1C334K080AC	330,000	0.420	0.0106	0.303
CGA3E1X7R1C334M080AC	330,000	0.420	0.0106	0.303
CGA3E3X5R1H474K080AB	470,000	0.420	0.0093	1.06
CGA3E3X5R1H474M080AB	470,000	0.420	0.0093	1.06
CGA3E3X5R1V474K080AB	470,000	0.420	0.0093	1.06
CGA3E3X5R1V474M080AB	470,000	0.420	0.0093	1.06
CGA3E3X5R1E474K080AB	470,000	0.420	0.0093	1.06
CGA3E3X5R1E474M080AB	470,000	0.420	0.0093	1.06
CGA3E2X5R1C474K080AA	470,000	0.420	0.0078	0.212
CGA3E2X5R1C474M080AA	470,000	0.420	0.0078	0.212
CGA3E2X5R1A474K080AA	470,000	0.420	0.0128	0.212
CGA3E2X5R1A474M080AA	470,000	0.420	0.0128	0.212
CGA3E3X7R1H474K080AB	470,000	0.420	0.0111	1.06
CGA3E3X7R1H474M080AB	470,000	0.420	0.0111	1.06
CGA3E1X7R1V474K080AC	470,000	0.420	0.0093	1.06
CGA3E1X7R1V474M080AC	470,000	0.420	0.0093	1.06
CGA3E3X7R1E474K080AB	470,000	0.420	0.0093	1.06
CGA3E3X7R1E474M080AB	470,000	0.420	0.0093	1.06
CGA3E1X7R1C474K080AC	470,000	0.420	0.0078	0.212
CGA3E1X7R1C474M080AC	470,000	0.420	0.0078	0.212
CGA3E3X5R1H684K080AB	680,000	0.420	0.0067	0.735
CGA3E3X5R1H684M080AB	680,000	0.420	0.0067	0.735
CGA3E3X5R1V684K080AB	680,000	0.420	0.0067	0.735
CGA3E3X5R1V684M080AB	680,000	0.420	0.0067	0.735
CGA3E3X5R1E684K080AB	680,000	0.420	0.0067	0.735
CGA3E3X5R1E684M080AB	680,000	0.420	0.0067	0.735
CGA3E2X5R1C684K080AA	680,000	0.420	0.0082	0.147
CGA3E2X5R1C684M080AA	680,000	0.420	0.0082	0.147
CGA3E2X5R1A684K080AA	680,000	0.420	0.0079	0.147

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Circuit Diagram



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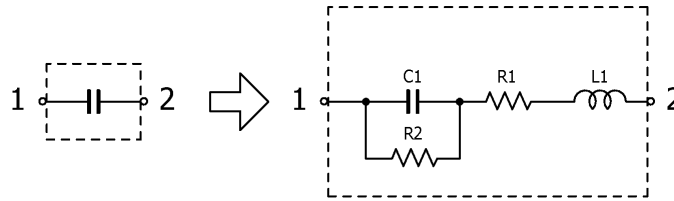
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2X5R1A684M080AA	680,000	0.420	0.0079	0.147
CGA3E1X7R1V684K080AC	680,000	0.420	0.0089	0.735
CGA3E1X7R1V684M080AC	680,000	0.420	0.0089	0.735
CGA3E1X7R1E684K080AC	680,000	0.420	0.0067	0.735
CGA3E1X7R1E684M080AC	680,000	0.420	0.0067	0.735
CGA3E1X7R1C684K080AC	680,000	0.420	0.0082	0.147
CGA3E1X7R1C684M080AC	680,000	0.420	0.0082	0.147
CGA3E3X5R1H105K080AB	1,000,000	0.420	0.0056	0.500
CGA3E3X5R1H105M080AB	1,000,000	0.420	0.0056	0.500
CGA3E3X5R1V105K080AB	1,000,000	0.420	0.0056	0.500
CGA3E3X5R1V105M080AB	1,000,000	0.420	0.0056	0.500
CGA3E3X5R1E105K080AB	1,000,000	0.420	0.0056	0.500
CGA3E3X5R1E105M080AB	1,000,000	0.420	0.0056	0.500
CGA3E1X5R1C105K080AC	1,000,000	0.420	0.0057	0.100
CGA3E1X5R1C105M080AC	1,000,000	0.420	0.0057	0.100
CGA3E2X5R1A105K080AA	1,000,000	0.420	0.0096	0.100
CGA3E2X5R1A105M080AA	1,000,000	0.420	0.0096	0.100
CGA3E1X7R1V105K080AC	1,000,000	0.420	0.0083	0.500
CGA3E1X7R1V105M080AC	1,000,000	0.420	0.0083	0.500
CGA3E1X7R1E105K080AC	1,000,000	0.420	0.0064	0.500
CGA3E1X7R1E105M080AC	1,000,000	0.420	0.0064	0.500
CGA3E1X7R1C105K080AC	1,000,000	0.420	0.0057	0.100
CGA3E1X7R1C105M080AC	1,000,000	0.420	0.0057	0.100
CGA3E1X5R1C155K080AC	1,500,000	0.420	0.0050	0.0660
CGA3E1X5R1C155M080AC	1,500,000	0.420	0.0050	0.0660
CGA3E3X5R1A155K080AB	1,500,000	0.420	0.0050	0.0660
CGA3E3X5R1A155M080AB	1,500,000	0.420	0.0050	0.0660
CGA3E1X7R0J155K080AC	1,500,000	0.420	0.0050	0.0660
CGA3E1X7R0J155M080AC	1,500,000	0.420	0.0050	0.0660
CGA3E1X7S1C155K080AC	1,500,000	0.420	0.0065	0.0660
CGA3E1X7S1C155M080AC	1,500,000	0.420	0.0058	0.0660
CGA3E3X7S1A155K080AB	1,500,000	0.420	0.0058	0.0660
CGA3E3X7S1A155M080AB	1,500,000	0.420	0.0058	0.0660
CGA3E1X5R1C225K080AC	2,200,000	0.420	0.0043	0.0450
CGA3E1X5R1C225M080AC	2,200,000	0.420	0.0043	0.0450
CGA3E3X5R1A225K080AB	2,200,000	0.420	0.0064	0.0450

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May 23, 2024
Simple Model

Automotive Grade, General (Up to 75V) / CGA3 series (7/7)

Circuit Diagram



Circuit Parameters

Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E3X5R1A225M080AB	2,200,000	0.420	0.0064	0.0450
CGA3E1X7R0J225K080AC	2,200,000	0.420	0.0043	0.0450
CGA3E1X7R0J225M080AC	2,200,000	0.420	0.0043	0.0450
CGA3E1X7S1C225K080AC	2,200,000	0.420	0.0054	0.0450
CGA3E1X7S1C225M080AC	2,200,000	0.420	0.0054	0.0450
CGA3E3X7S1A225K080AB	2,200,000	0.420	0.0055	0.0450
CGA3E3X7S1A225M080AB	2,200,000	0.420	0.0055	0.0450
CGA3E1X5R1A335K080AC	3,300,000	0.420	0.0050	0.0300
CGA3E1X5R1A335M080AC	3,300,000	0.420	0.0050	0.0300
CGA3E3X5R0J335K080AB	3,300,000	0.420	0.0041	0.0300
CGA3E3X5R0J335M080AB	3,300,000	0.420	0.0041	0.0300
CGA3E1X5R0J475K080AC	4,700,000	0.420	0.0036	0.0210
CGA3E1X5R0J475M080AC	4,700,000	0.420	0.0036	0.0210
CGA3E1X7T1A475K080AC	4,700,000	0.420	0.0029	0.0210
CGA3EDX7T1A106M080AU	10,000,000	0.420	0.0037	0.0100
CGA3E3X7T0J475K080AB	4,700,000	0.420	0.0029	0.0210
CGA3E1X7T0J106M080AC	10,000,000	0.420	0.0037	0.0100
CGA3E3X7T0G106M080AB	10,000,000	0.420	0.0037	0.0100
CGA3E1X7T0G106M080AC	10,000,000	0.420	0.0036	0.0100