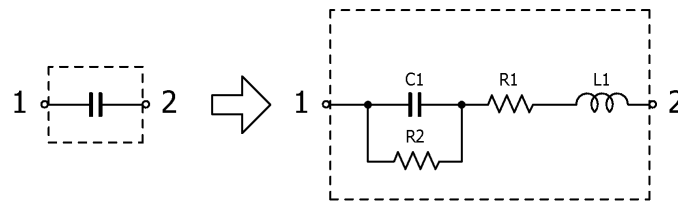


## Multilayer Ceramic Chip Capacitors

July 26, 2019  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (1/5)

### Circuit Diagram



### Circuit Parameters

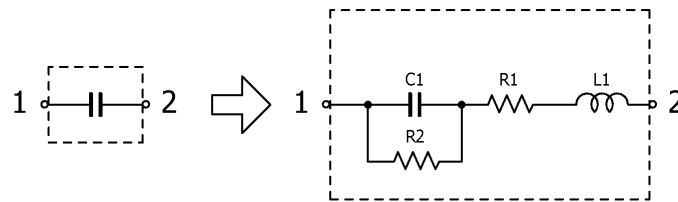
Part No.	C1[ $\mu$ F]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP02A010C080AA	1	0.420	1.1407	10.0
CGA3E2NP01H010C080AA	1	0.420	0.9827	10.0
CGA3E2NP02A1R5C080AA	1.5	0.420	0.7938	10.0
CGA3E2NP01H1R5C080AA	1.5	0.420	1.2185	10.0
CGA3E2NP02A020C080AA	2	0.420	1.0049	10.0
CGA3E2NP01H020C080AA	2	0.420	0.9188	10.0
CGA3E2NP02A2R2C080AA	2.2	0.420	0.5751	10.0
CGA3E2NP01H2R2C080AA	2.2	0.420	0.6028	10.0
CGA3E2NP02A030C080AA	3	0.420	0.8279	10.0
CGA3E2NP01H030C080AA	3	0.420	0.7233	10.0
CGA3E2NP02A3R3C080AA	3.3	0.420	0.8276	10.0
CGA3E2NP01H3R3C080AA	3.3	0.420	0.4953	10.0
CGA3E2NP02A040C080AA	4	0.420	0.6683	10.0
CGA3E2NP01H040C080AA	4	0.420	0.5992	10.0
CGA3E2NP02A4R7C080AA	4.7	0.420	0.5966	10.0
CGA3E2NP01H4R7C080AA	4.7	0.420	0.3666	10.0
CGA3E2NP02A050C080AA	5	0.420	0.4904	10.0
CGA3E2NP01H050C080AA	5	0.420	0.3921	10.0
CGA3E2NP02A060D080AA	6	0.420	0.4810	10.0
CGA3E2NP01H060D080AA	6	0.420	0.3985	10.0
CGA3E2NP02A6R8D080AA	6.8	0.420	0.4434	10.0
CGA3E2NP01H6R8D080AA	6.8	0.420	0.3038	10.0
CGA3E2NP02A070D080AA	7	0.420	0.4387	10.0
CGA3E2NP01H070D080AA	7	0.420	0.4918	10.0
CGA3E2NP02A080D080AA	8	0.420	0.3963	10.0
CGA3E2NP01H080D080AA	8	0.420	0.3141	10.0
CGA3E2NP02A090D080AA	9	0.420	0.3734	10.0
CGA3E2NP01H090D080AA	9	0.420	0.4633	10.0
CGA3E2NP02A100D080AA	10	0.420	0.3177	10.0
CGA3E2NP01H100D080AA	10	0.420	0.3084	10.0
CGA3E2NP02A120J080AA	12	0.420	0.3774	10.0
CGA3E2NP01H120J080AA	12	0.420	0.3580	10.0
CGA3E2NP02A150J080AA	15	0.420	0.3337	10.0
CGA3E2NP01H150J080AA	15	0.420	0.3727	10.0
CGA3E2NP02A180J080AA	18	0.420	0.2832	10.0
CGA3E2NP01H180J080AA	18	0.420	0.3009	10.0

## Multilayer Ceramic Chip Capacitors

July 26, 2019  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (2/5)

### Circuit Diagram



### Circuit Parameters

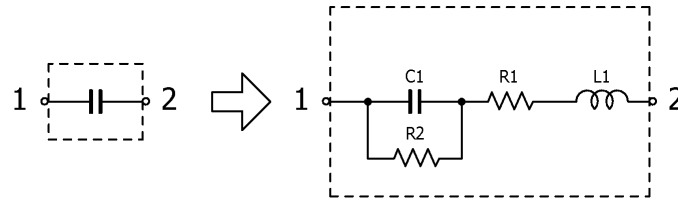
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP02A220J080AA	22	0.420	0.2436	10.0
CGA3E2NP01H220J080AA	22	0.420	0.2911	10.0
CGA3E2NP02A270J080AA	27	0.420	0.2617	10.0
CGA3E2NP01H270J080AA	27	0.420	0.2376	10.0
CGA3E2NP02A330J080AA	33	0.420	0.2683	10.0
CGA3E2NP01H330J080AA	33	0.420	0.2471	10.0
CGA3E2NP02A390J080AA	39	0.420	0.1719	10.0
CGA3E2NP01H390J080AA	39	0.420	0.2362	10.0
CGA3E2NP02A470J080AA	47	0.420	0.3899	10.0
CGA3E2NP01H470J080AA	47	0.420	0.2173	10.0
CGA3E2NP02A560J080AA	56	0.420	0.1700	10.0
CGA3E2NP01H560J080AA	56	0.420	0.1843	10.0
CGA3E2NP02A680J080AA	68	0.420	0.1176	10.0
CGA3E2NP01H680J080AA	68	0.420	0.1473	10.0
CGA3E2NP02A820J080AA	82	0.420	0.1501	10.0
CGA3E2NP01H820J080AA	82	0.420	0.1633	10.0
CGA3E2NP02A101J080AA	100	0.420	0.0919	10.0
CGA3E2NP01H101J080AA	100	0.420	0.1402	10.0
CGA3E2NP02A121J080AA	120	0.420	0.1401	10.0
CGA3E2NP01H121J080AA	120	0.420	0.0795	10.0
CGA3E2NP02A151J080AA	150	0.420	0.0779	10.0
CGA3E2NP01H151J080AA	150	0.420	0.0807	10.0
CGA3E2NP02A181J080AA	180	0.420	0.1067	10.0
CGA3E2NP01H181J080AA	180	0.420	0.0659	10.0
CGA3E2NP02A221J080AA	220	0.420	0.0552	10.0
CGA3E2NP01H221J080AA	220	0.420	0.0681	10.0
CGA3E2NP02A271J080AA	270	0.420	0.0899	10.0
CGA3E2NP01H271J080AA	270	0.420	0.0834	10.0
CGA3E2NP02A331J080AA	330	0.420	0.0659	10.0
CGA3E2NP01H331J080AA	330	0.420	0.0770	10.0
CGA3E2NP02A391J080AA	390	0.420	0.1118	10.0
CGA3E2NP01H391J080AA	390	0.420	0.0602	10.0
CGA3E2NP02A471J080AA	470	0.420	0.0607	10.0
CGA3E2NP01H471J080AA	470	0.420	0.0560	10.0
CGA3E2NP02A561J080AA	560	0.420	0.0535	10.0
CGA3E2NP01H561J080AA	560	0.420	0.0566	10.0

## Multilayer Ceramic Chip Capacitors

July 26, 2019  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (3/5)

### Circuit Diagram



### Circuit Parameters

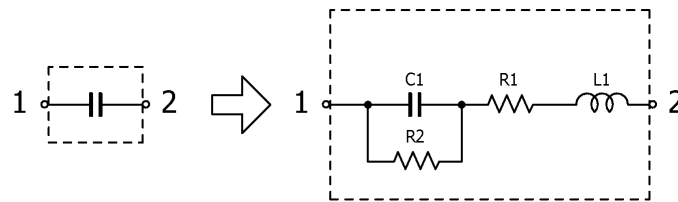
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP02A681J080AA	680	0.420	0.0463	10.0
CGA3E2NP01H681J080AA	680	0.420	0.0473	10.0
CGA3E3NP02E821J080AA	820	0.420	0.0572	10.0
CGA3E2NP02A821J080AA	820	0.420	0.0543	10.0
CGA3E2NP01H821J080AA	820	0.420	0.0380	10.0
CGA3E2NP02A102J080AA	1,000	0.420	0.0369	10.0
CGA3E2NP01H102J080AA	1,000	0.420	0.0396	10.0
CGA3E2X8R2A102K080AA	1,000	0.420	0.1886	10.0
CGA3E2X8R2A102M080AA	1,000	0.420	0.1886	10.0
CGA3E2X8R1H102K080AA	1,000	0.420	0.1886	10.0
CGA3E2X8R1H102M080AA	1,000	0.420	0.1886	10.0
CGA3E2NP02A122J080AA	1,200	0.420	0.0290	10.0
CGA3E2NP01H122J080AA	1,200	0.420	0.0366	10.0
CGA3E2NP02A152J080AA	1,500	0.420	0.0284	10.0
CGA3E2NP01H152J080AA	1,500	0.420	0.0284	10.0
CGA3E2X8R2A152K080AA	1,500	0.420	0.1868	10.0
CGA3E2X8R2A152M080AA	1,500	0.420	0.1868	10.0
CGA3E2X8R1H152K080AA	1,500	0.420	0.1868	10.0
CGA3E2X8R1H152M080AA	1,500	0.420	0.1868	10.0
CGA3E2NP02A182J080AA	1,800	0.420	0.0288	10.0
CGA3E2NP01H182J080AA	1,800	0.420	0.0256	10.0
CGA3E2NP02A222J080AA	2,200	0.420	0.0214	10.0
CGA3E2NP01H222J080AA	2,200	0.420	0.0310	10.0
CGA3E2X8R2A222K080AA	2,200	0.420	0.1359	10.0
CGA3E2X8R2A222M080AA	2,200	0.420	0.1359	10.0
CGA3E2X8R1H222K080AA	2,200	0.420	0.1359	10.0
CGA3E2X8R1H222M080AA	2,200	0.420	0.1359	10.0
CGA3E2NP01H272J080AA	2,700	0.420	0.0249	10.0
CGA3E2NP02A272J080AA	2,700	0.420	0.0220	10.0
CGA3E2NP01H332J080AA	3,300	0.420	0.0218	10.0
CGA3E2X8R2A332K080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R2A332M080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R1H332K080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R1H332M080AA	3,300	0.420	0.0945	10.0
CGA3E2NP02A332J080AA	3,300	0.420	0.0209	10.0
CGA3E2NP01H392J080AA	3,900	0.420	0.0233	10.0

## Multilayer Ceramic Chip Capacitors

July 26, 2019  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (4/5)

### Circuit Diagram



### Circuit Parameters

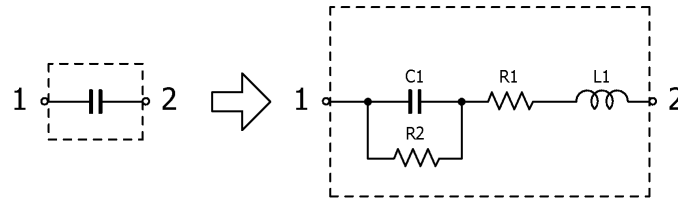
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP01H472J080AA	4,700	0.420	0.0255	10.0
CGA3E2X8R2A472K080AA	4,700	0.420	0.0969	10.0
CGA3E2X8R2A472M080AA	4,700	0.420	0.0969	10.0
CGA3E2X8R1H472K080AA	4,700	0.420	0.0969	10.0
CGA3E2X8R1H472M080AA	4,700	0.420	0.0969	10.0
CGA3E2NP01H562J080AA	5,600	0.420	0.0263	10.0
CGA3E2NP01H682J080AA	6,800	0.420	0.0173	10.0
CGA3E2X8R2A682K080AA	6,800	0.420	0.0681	10.0
CGA3E2X8R2A682M080AA	6,800	0.420	0.0681	10.0
CGA3E2X8R1H682K080AA	6,800	0.420	0.0681	10.0
CGA3E2X8R1H682M080AA	6,800	0.420	0.0681	10.0
CGA3E2NP01H822J080AA	8,200	0.420	0.0237	10.0
CGA3E2NP01H103J080AA	10,000	0.420	0.0160	10.0
CGA3E2X8R2A103K080AA	10,000	0.420	0.0509	10.0
CGA3E2X8R2A103M080AA	10,000	0.420	0.0509	10.0
CGA3E2X8R1H103K080AA	10,000	0.420	0.0509	10.0
CGA3E2X8R1H103M080AA	10,000	0.420	0.0509	10.0
CGA3E2X8R2A153K080AA	15,000	0.420	0.0378	10.0
CGA3E2X8R2A153M080AA	15,000	0.420	0.0378	10.0
CGA3E2X8R1H153K080AA	15,000	0.420	0.0378	10.0
CGA3E2X8R1H153M080AA	15,000	0.420	0.0378	10.0
CGA3E3X8R2A223K080AB	22,000	0.420	0.0522	10.0
CGA3E3X8R2A223M080AB	22,000	0.420	0.0522	10.0
CGA3E2X8R1H223K080AA	22,000	0.420	0.0396	10.0
CGA3E2X8R1H223M080AA	22,000	0.420	0.0396	10.0
CGA3E3X8R2A333K080AB	33,000	0.420	0.0273	10.0
CGA3E3X8R2A333M080AB	33,000	0.420	0.0273	10.0
CGA3E2X8R1H333K080AA	33,000	0.420	0.0298	10.0
CGA3E2X8R1H333M080AA	33,000	0.420	0.0298	10.0
CGA3E2X8R1H473K080AA	47,000	0.420	0.0195	10.0
CGA3E2X8R1H473M080AA	47,000	0.420	0.0195	10.0
CGA3E3X8R1H683K080AB	68,000	0.420	0.0290	7.35
CGA3E3X8R1H683M080AB	68,000	0.420	0.0290	7.35
CGA3E2X8R1E683K080AA	68,000	0.420	0.0180	7.35
CGA3E2X8R1E683M080AA	68,000	0.420	0.0180	7.35
CGA3E3X8R1H104K080AB	100,000	0.420	0.0190	5.00

## Multilayer Ceramic Chip Capacitors

July 26, 2019  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (5/5)

### Circuit Diagram



### Circuit Parameters

Part No.	C1[ $\mu$ F]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E3X8R1H104M080AB	100,000	0.420	0.0190	5.00
CGA3E2X8R1E104K080AA	100,000	0.420	0.0130	5.00
CGA3E2X8R1E104M080AA	100,000	0.420	0.0130	5.00
CGA3E3X8R1E154K080AB	150,000	0.420	0.0169	3.33
CGA3E3X8R1E154M080AB	150,000	0.420	0.0169	3.33
CGA3E3X8R1E224K080AB	220,000	0.420	0.0282	2.27
CGA3E3X8R1E224M080AB	220,000	0.420	0.0282	2.27
CGA3E3X8R1C334K080AB	330,000	0.420	0.0139	0.303
CGA3E3X8R1C334M080AB	330,000	0.420	0.0139	0.303
CGA3E3X8R1C474K080AB	470,000	0.420	0.0103	0.212
CGA3E3X8R1C474M080AB	470,000	0.420	0.0103	0.212