

## Multilayer Ceramic Chip Capacitors

May 23, 2024  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (1/4)

### Circuit Diagram



### Circuit Parameters

Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP02A010C080AA	1	0.420	1.1407	10.0
CGA3E2NP01H010C080AA	1	0.420	0.9827	10.0
CGA3E2NP02A020C080AA	2	0.420	1.0049	10.0
CGA3E2NP01H020C080AA	2	0.420	0.9188	10.0
CGA3E2NP02A030C080AA	3	0.420	0.8279	10.0
CGA3E2NP01H030C080AA	3	0.420	0.7233	10.0
CGA3E2NP02A040C080AA	4	0.420	0.6683	10.0
CGA3E2NP01H040C080AA	4	0.420	0.5992	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
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
CGA3E2NP02A150J080AA	15	0.420	0.3337	10.0
CGA3E2NP01H150J080AA	15	0.420	0.3727	10.0
CGA3E2NP02A220J080AA	22	0.420	0.2436	10.0
CGA3E2NP01H220J080AA	22	0.420	0.2911	10.0
CGA3E2NP02A330J080AA	33	0.420	0.2683	10.0
CGA3E2NP01H330J080AA	33	0.420	0.2471	10.0
CGA3E2NP02A470J080AA	47	0.420	0.3899	10.0
CGA3E2NP01H470J080AA	47	0.420	0.2173	10.0
CGA3E2NP02A680J080AA	68	0.420	0.1176	10.0
CGA3E2NP01H680J080AA	68	0.420	0.1473	10.0
CGA3E2NP02A101J080AA	100	0.420	0.0919	10.0
CGA3E2NP01H101J080AA	100	0.420	0.1402	10.0
CGA3E2NP02A151J080AA	150	0.420	0.0779	10.0
CGA3E2NP01H151J080AA	150	0.420	0.0807	10.0
CGA3E2NP02A221J080AA	220	0.420	0.0552	10.0
CGA3E2NP01H221J080AA	220	0.420	0.0681	10.0

## Multilayer Ceramic Chip Capacitors

May 23, 2024  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (2/4)

### Circuit Diagram



### Circuit Parameters

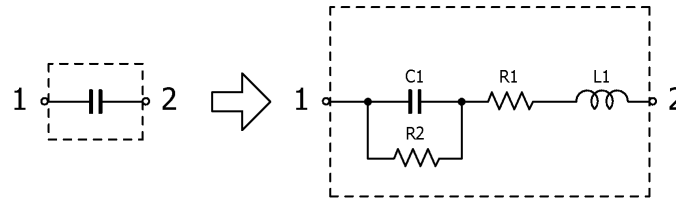
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP02A331J080AA	330	0.420	0.0659	10.0
CGA3E2NP01H331J080AA	330	0.420	0.0770	10.0
CGA3E2NP02A471J080AA	470	0.420	0.0607	10.0
CGA3E2NP01H471J080AA	470	0.420	0.0560	10.0
CGA3E2NP02A681J080AA	680	0.420	0.0463	10.0
CGA3E2NP01H681J080AA	680	0.420	0.0473	10.0
CGA3E3NP02E102J080AA	1,000	0.420	0.0462	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
CGA3E3NP02E122J080AA	1,200	0.420	0.0374	10.0
CGA3E2NP02A122J080AA	1,200	0.420	0.0290	10.0
CGA3E2NP01H122J080AA	1,200	0.420	0.0366	10.0
CGA3E3NP02E152J080AA	1,500	0.420	0.0330	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
CGA3E3NP02E182J080AA	1,800	0.420	0.0281	10.0
CGA3E2NP02A182J080AA	1,800	0.420	0.0288	10.0
CGA3E2NP01H182J080AA	1,800	0.420	0.0256	10.0
CGA3E3NP02E222J080AA	2,200	0.420	0.0275	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
CGA3E2NP02A272J080AA	2,700	0.420	0.0220	10.0
CGA3E2NP01H272J080AA	2,700	0.420	0.0249	10.0
CGA3E2NP02A332J080AA	3,300	0.420	0.0209	10.0

## Multilayer Ceramic Chip Capacitors

May 23, 2024  
Simple Model

Automotive Grade, High Temperature Application / CGA3 series (3/4)

### Circuit Diagram



### Circuit Parameters

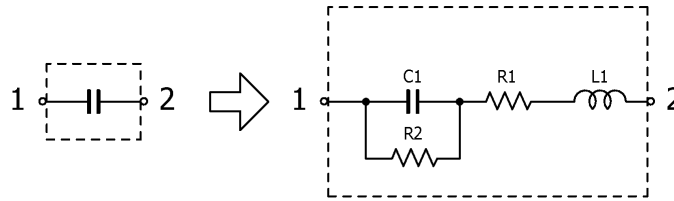
Part No.	C1[pF]	L1[nH]	R1[ohm]	R2[Gohm]
CGA3E2NP01H332J080AA	3,300	0.420	0.0218	10.0
CGA3E2X8R2A332K080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R2A332M080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R1H332K080AA	3,300	0.420	0.0945	10.0
CGA3E2X8R1H332M080AA	3,300	0.420	0.0945	10.0
CGA3E2NP01H392J080AA	3,900	0.420	0.0233	10.0
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

## Multilayer Ceramic Chip Capacitors

May 23, 2024  
Simple Model

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

### Circuit Diagram



### Circuit Parameters

Part No.	C1[ $\mu$ F]	L1[nH]	R1[ohm]	R2[Gohm]
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
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
CGA3E1X8R1E334K080AC	330,000	0.420	0.0139	1.52
CGA3E1X8R1E334M080AC	330,000	0.420	0.0139	1.52
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
CGA3E1X8L1C684K080AC	680,000	0.420	0.0089	0.147
CGA3E1X8L1C105K080AC	1,000,000	0.420	0.0083	0.100
CGA3E1X8L0J155K080AC	1,500,000	0.420	0.0058	0.0660
CGA3E1X8L0J225K080AC	2,200,000	0.420	0.0055	0.0450