



## 积层贴片陶瓷片式电容器



### CGA系列 车载等级 高温保证用

Type:

CGA2 [EIA CC0402]  
CGA3 [EIA CC0603]  
CGA4 [EIA CC0805]  
CGA5 [EIA CC1206]  
CGA6 [EIA CC1210]  
CGA8 [EIA CC1812]  
CGA9 [EIA CC2220]

Issue date:  
Apr 2015



## 使用注意事项

使用本产品前，请务必阅读

### 安全注意事项



#### 注意

1. 计划将本产品目录中记载的产品用于可能对人身安全或对社会造成重大损失的用途时，请务必通知本公司的销售窗口。
2. 本产品目录中记载的产品因改良及其他原因可能在不经预告的情况下进行变更或停止供应。
3. 关于本产品目录中记载的产品，本公司备有记载了各产品的规格及安全注意事项的“交货规格书”。在选用产品时，建议签定交货规格书。
4. 在出口本产品目录中记载的产品时，有时会被归为“外汇及外贸管理法”中规定的管制货物等。在这种情况下，需要有依据该法规定的出口许可。
5. 关于本产品目录的内容，未经本公司许可不得擅自转载或复制。
6. 因使用本产品目录中记载的产品而发生涉及本公司或第三者的知识产权及其他权利的问题时，本公司对此将不承担责任。并且，本公司不对该等权利的实施权办理许可。
7. 本产品目录适用于从本公司或本公司的正规代理商购买的产品。从其他第三者购买的产品不在适用范围之内。

注意：伴随网站的更新，由于系统限制的原因以及统一产品目录型号的需要，从2013年1月开始，TDK将在产品目录中使用新型号。

新目录型号将在以后所有根据产品目录订货时使用，但不适用于OEM订购。

目录型号的最后5个与产品标签上的交货型号（内部控制编号）不同，请注意。

详细信息请联系当地TDK销售代表。

(构成例)

产品目录发行日期	目录型号	交货型号（交货标签上的标识）
2012年12月以前	C1608C0G1E103J(080AA)	C1608C0G1E103JT000N
2013年1月及以后	C1608C0G1E103J080AA	C1608C0G1E103JT000N



## CGA 系列 高温保证用

Type: CGA2 [EIA CC0402], CGA3 [EIA CC0603], CGA4 [EIA CC0805],  
CGA5 [EIA CC1206], CGA6 [EIA CC1210], CGA8 [EIA CC1812], CGA9 [EIA CC2220]

### 特点



- 最高温度150°C，电容变化率在±15%以内，本系列适用于在高温环境下工作的设备。
- 实现优异的直流偏压特性。
- 符合 AEC-Q200 车载标准。

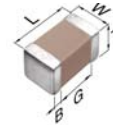
参数	规格
温度特性	-55 to +150°C ΔC、C : ±15% 或 0±30ppm
工作温度	-55 to +150°C
耗散因数	5% max.
绝缘电阻	10 GΩ 或 500 MΩ • μF min.
耐电压	额定电压的 2.5倍 或 3倍 1~5秒 充电、放电 ≤ 50 mA

### 用途



- 车载用（发动机室）
- 适用于高温环境下的IGBT、IC (SiC、GaN) 外围电路
- 传感器模块
- 对高温环境中动作的其他设备进行的去耦、平滑等

### 形状与尺寸



L	主体长度
W	主体宽度
T	主体高度
B	端子宽度
G	端子间距



### 目录型号的识别法

## CGA • 6 • P • 3 • X8R • 1C • 106 • K • 250 • A • B

#### 系列名称

#### 尺寸 L x W (mm)

代码	长度	宽度	端子
2	1.00 ± 0.05	0.50 ± 0.05	0.10 min.
3	1.60 ± 0.10	0.80 ± 0.10	0.20 min.
4	2.00 ± 0.20	1.25 ± 0.20	0.20 min.
5	3.20 ± 0.20	1.60 ± 0.20	0.20 min.
6	3.20 ± 0.40	2.50 ± 0.30	0.20 min.
8	4.50 ± 0.40	3.20 ± 0.40	0.20 min.
9	5.70 ± 0.40	5.00 ± 0.40	0.20 min.

\*尺寸公差表示的是具有代表性的数值

#### 厚度 T 代码 (mm)

代码	厚度
B	0.50 mm
C	0.60 mm
E	0.80 mm
F	0.85 mm
H	1.15 mm
J	1.25 mm
L	1.60 mm
M	2.00 mm
N	2.30 mm
P	2.50 mm
Q	2.80 mm
R	3.20 mm

#### 寿命试验的电压条件

代号	条件
2	2 × R.V.
3	1.5 × R.V.

#### 温度特性

温度特性	温度系数或电容变化率	温度范围
NP0	0±30ppm/°C	-55 to +150°C
X8R	±15%	-55 to +150°C

#### 额定电压 (直流)

代码	电压 (直流)	代码	电压 (直流)
1C	16V	2A	100V
1E	25V	2E	250V
1H	50V	2W	450V
		2J	630V

#### 标称电容 (pF)

电容量以pF(微微法拉)为单位，并用三个文字表示。最初两个文字表示电容的第一位和第二位有效数字。第三个文字表示接在有效数字后的零数。含有小数点时用R表示。

Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1,000nF = 1μF

#### 电容容差

代码	容差
C	± 0.25pF
D	± 0.50pF
J	± 5%
K	± 10%
M	± 20%

#### 标称厚度

代码	厚度	代码	厚度
050	0.50 mm	160	1.60 mm
060	0.60 mm	200	2.00 mm
080	0.80 mm	230	2.30 mm
085	0.85 mm	250	2.50 mm
115	1.15 mm	280	2.80 mm
125	1.25 mm	320	3.20 mm

#### 包装形式

代码	形式
A	178mm 卷筒、4mm 间距
B	178mm 卷筒、2mm 间距
K	178mm 卷筒、8mm 间距

#### 特殊指定代码

代码	说明
A、B	本公司内部管理符号



## 电容范围图

# CGA2(1005) [EIA CC0402]

### 电容范围图

温度特性: NP0 (0 ± 30ppm/°C)、X8R (±15%)  
 额定电压: 100V(2A)、50V(1H)、25V(1E)、16V(1C)

电容		电容量差	NP0		X8R			
(pF)	代码		2A (100V)	1H (50V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)
1	010	C: ±0.25pF D: ±0.50pF J: ±5% K: ±10% M: ±20%						
1.5	1R5							
2	020							
2.2	2R2							
3	030							
3.3	3R3							
4	040							
4.7	4R7							
5	050							
6	060							
6.8	6R8							
7	070							
8	080							
9	090							
10	100							
12	120							
15	150							
18	180							
22	220							
27	270							
33	330							
39	390							
47	470							
56	560							
68	680							
82	820							
100	101							
120	121							
150	151							
180	181							
220	221							
270	271							
330	331							
390	391							
470	471							
560	561							
680	681							
820	821							
1,000	102							
1,500	152							
2,200	222							
3,300	332							
4,700	472							
6,800	682							
10,000	103							
15,000	153							
22,000	223							
33,000	333							
47,000	473							

标准厚度  
 0.50 mm



## CGA3(1608) [EIA CC0603]

### 电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )、X8R ( $\pm 15\%$ )  
 额定电压: 250V(2E)、100V(2A)、50V(1H)、25V(1E)、16V(1C)

电容		电容容差	NP0		
(pF)	代码		2E (250V)	2A (100V)	1H (50V)
1	010	C: $\pm 0.25\text{pF}$ D: $\pm 0.50\text{pF}$ J: $\pm 5\%$			
2	1R5				
2	020				
2	2R2				
3	030				
3	3R3				
4	040				
5	4R7				
5	050				
6	060				
7	6R8				
7	070				
8	080				
9	090				
10	100				
12	120				
15	150				
18	180				
22	220				
27	270				
33	330				
39	390				
47	470				
56	560				
68	680				
82	820				
100	101				
120	121				
150	151				
180	181				
220	221				
270	271				
330	331				
390	391				
470	471				
560	561				
680	681				
820	821				
1,000	102				
1,200	122				
1,500	152				
1,800	182				
2,200	222				
2,700	272				
3,300	332				
3,900	392				
4,700	472				
5,600	562				
6,800	682				
8,200	822				
10,000	103				

电容		电容容差	X8R			
(pF)	代码		2A (100V)	1H (50V)	1E (25V)	1C (16V)
1,000	102	K: $\pm 10\%$ M: $\pm 20\%$				
1,500	152					
2,200	222					
3,300	332					
4,700	472					
6,800	682					
10,000	103					
15,000	153					
22,000	223					
33,000	333					
47,000	473					
68,000	683					
100,000	104					
150,000	154					
220,000	224					
330,000	334					
470,000	474					

标准厚度  
 0.80 mm



## CGA4(2012) [EIA CC0805]

### 电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )、X8R ( $\pm 15\%$ )

额定电压: 450V(2W)、250V(2E)、100V(2A)、50V(1H)、25V(1E)、16V(1C)

电容		电容容差	NP0				X8R			
(pF)	代码		2W (450V)	2E (250V)	2A (100V)	1H (50V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)
100	101	J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$	■							
120	121									
150	151									
180	181									
220	221									
270	271									
330	331									
390	391									
470	471									
560	561									
680	681									
820	821									
1,000	102			■		■				
1,200	122			■		■				
1,500	152			■		■				
1,800	182			■		■				
2,200	222			■		■				
2,700	272			■		■				
3,300	332			■	■	■				
3,900	392		■	■	■					
4,700	472		■	■	■					
5,600	562		■	■	■					
6,800	682		■	■	■					
8,200	822			■	■					
10,000	103			■	■					
15,000	153			■	■	■				
22,000	223			■	■	■				
33,000	333			■	■	■				
47,000	473			■	■	■				
68,000	683			■	■	■				
100,000	104			■	■	■				
150,000	154			■	■	■				
220,000	224			■	■	■				
330,000	334			■	■	■				
470,000	474			■	■	■				
680,000	684			■	■	■				
1,000,000	105			■	■	■			■	

标准厚度

- 0.60 mm
- 0.85 mm
- 1.25 mm



电容  
范围图

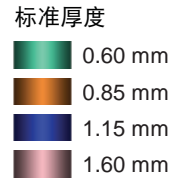
## CGA5(3216) [EIA CC1206]

电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )、X8R ( $\pm 15\%$ )

额定电压: 630V(2J)、450V(2W)、250V(2E)、100V(2A)、50V(1H)、25V(1E)、16V(1C)

电容		电容容差	NP0					X8R			
(pF)	代码		2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)
3,900	392	J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$	■			■	■				
4,700	472		■			■	■				
5,600	562		■			■	■				
6,800	682		■			■	■				
8,200	822		■	■		■	■				
10,000	103		■	■		■	■				
15,000	153		■	■		■	■				
22,000	223		■	■		■	■				
33,000	333		■	■		■	■				
47,000	473		■	■		■	■				
68,000	683		■	■		■	■				
100,000	104		■	■		■	■	■			
150,000	154		■	■		■	■	■			
220,000	224		■	■		■	■	■	■		
330,000	334		■	■		■	■	■	■		
470,000	474		■	■		■	■	■	■		
680,000	684		■	■		■	■	■	■	■	
1,000,000	105	■	■		■	■	■	■	■		
1,500,000	155	■	■		■	■	■	■	■		
2,200,000	225	■	■		■	■	■	■	■		
3,300,000	335	■	■		■	■	■	■	■		
4,700,000	475	■	■		■	■	■	■	■	■	



电容  
范围图

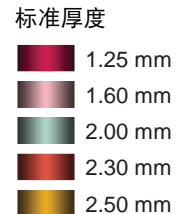
## CGA6(3225) [EIA CC1210]

电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )、X8R ( $\pm 15\%$ )

额定电压: 630V(2J)、450V(2W)、250V(2E)、100V(2A)、50V(1H)、25V(1E)、16V(1C)

电容		电容容差	NP0					X8R		
(pF)	代码		2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	2A (100V)	1E (25V)	1C (16V)
8,200	822	J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$	■							
10,000	103		■							
15,000	153		■							
22,000	223		■	■						
33,000	333		■	■						
47,000	473		■	■						
68,000	683		■	■						
100,000	104		■	■						
470,000	474		■	■				■		
680,000	684		■	■				■		
1,500,000	155		■	■				■	■	
2,200,000	225	■	■				■	■		
3,300,000	335	■	■				■	■		
4,700,000	475	■	■				■	■		
6,800,000	685	■	■				■	■		
10,000,000	106	■	■				■	■	■	





电容  
范围图

## CGA8(4532) [EIA CC1812]

电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )  
 额定电压: 630V(2J)、450V(2W)、250V(2E)、100V(2A)、50V(1H)

电容		电容容差	NP0					标准厚度
(pF)	代码		2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	
33,000	333	J: $\pm 5\%$						
47,000	473							
68,000	683							
100,000	104							
150,000	154							
220,000	224							



电容  
范围图

## CGA9(5750) [EIA CC2220]

电容范围图

温度特性: NP0 ( $0 \pm 30\text{ppm}/^\circ\text{C}$ )  
 额定电压: 450V(2W)、250V(2E)、100V(2A)

电容		电容容差	NP0			标准厚度
(pF)	代码		2W (450V)	2E (250V)	2A (100V)	
100,000	104	J: $\pm 5\%$				
150,000	154					





## 电容 范围表

### 种类 1 (温度补偿用)

温度特性: NP0 (-55 ~ +150°C、0 ± 30 ppm/°C)

电容	尺寸	厚度 (mm)	电容容差	目录型号				
				额定电压 Edc : 630V	额定电压 Edc : 450V	额定电压 Edc : 250V	额定电压 Edc : 100V	额定电压 Edc : 50V
1 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H010C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A010C080AA	CGA3E2NP01H010C080AA
1.5 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H1R5C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A1R5C080AA	CGA3E2NP01H1R5C080AA
2 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H020C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A020C080AA	CGA3E2NP01H020C080AA
2.2 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H2R2C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A2R2C080AA	CGA3E2NP01H2R2C080AA
3 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H030C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A030C080AA	CGA3E2NP01H030C080AA
3.3 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H3R3C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A3R3C080AA	CGA3E2NP01H3R3C080AA
4 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H040C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A040C080AA	CGA3E2NP01H040C080AA
4.7 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H4R7C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A4R7C080AA	CGA3E2NP01H4R7C080AA
5 pF	1005	0.50 ± 0.05	± 0.25pF					CGA2B2NP01H050C050BA
	1608	0.80 ± 0.10	± 0.25pF				CGA3E2NP02A050C080AA	CGA3E2NP01H050C080AA
6 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H060D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A060D080AA	CGA3E2NP01H060D080AA
6.8 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H6R8D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A6R8D080AA	CGA3E2NP01H6R8D080AA
7 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H070D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A070D080AA	CGA3E2NP01H070D080AA
8 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H080D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A080D080AA	CGA3E2NP01H080D080AA
9 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H090D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A090D080AA	CGA3E2NP01H090D080AA
10 pF	1005	0.50 ± 0.05	± 0.50pF					CGA2B2NP01H100D050BA
	1608	0.80 ± 0.10	± 0.50pF				CGA3E2NP02A100D080AA	CGA3E2NP01H100D080AA
12 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H120J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A120J080AA	CGA3E2NP01H120J080AA
15 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H150J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A150J080AA	CGA3E2NP01H150J080AA
18 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H180J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A180J080AA	CGA3E2NP01H180J080AA
22 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H220J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A220J080AA	CGA3E2NP01H220J080AA
27 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H270J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A270J080AA	CGA3E2NP01H270J080AA
33 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H330J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A330J080AA	CGA3E2NP01H330J080AA
39 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H390J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A390J080AA	CGA3E2NP01H390J080AA
47 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H470J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A470J080AA	CGA3E2NP01H470J080AA
56 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H560J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A560J080AA	CGA3E2NP01H560J080AA
68 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H680J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A680J080AA	CGA3E2NP01H680J080AA
82 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H820J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A820J080AA	CGA3E2NP01H820J080AA
100 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP02A101J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A101J080AA	CGA3E2NP01H101J080AA
120 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP02A121J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A121J080AA	CGA3E2NP01H121J080AA
150 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP02A151J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A151J080AA	CGA3E2NP01H151J080AA
180 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP02A181J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A181J080AA	CGA3E2NP01H181J080AA
	2012	0.60 ± 0.15	± 5%		CGA4C4NP02W101J060AA			
	2012	0.60 ± 0.15	± 5%		CGA4C4NP02W121J060AA			
	2012	0.60 ± 0.15	± 5%		CGA4C4NP02W151J060AA			



## 电容 范围表

### 种类 1 (温度补偿用)

温度特性: NP0 (-55 ~ +150°C、0 ± 30 ppm/°C)

电容	尺寸	厚度 (mm)	电容容差	目录型号				
				额定电压 Edc : 630V	额定电压 Edc : 450V	额定电压 Edc : 250V	额定电压 Edc : 100V	额定电压 Edc : 50V
220 pF	1005	0.50 ± 0.05	± 5%				CGA2B2NP02A221J050BA	CGA2B2NP01H221J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A221J080AA	CGA3E2NP01H221J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W221J060AA				
270 pF	1005	0.50 ± 0.05	± 5%				CGA2B2NP02A271J050BA	CGA2B2NP01H271J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A271J080AA	CGA3E2NP01H271J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W271J060AA				
330 pF	1005	0.50 ± 0.05	± 5%				CGA2B2NP02A331J050BA	CGA2B2NP01H331J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A331J080AA	CGA3E2NP01H331J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W331J060AA				
390 pF	1005	0.50 ± 0.05	± 5%				CGA2B2NP02A391J050BA	CGA2B2NP01H391J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A391J080AA	CGA3E2NP01H391J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W391J060AA				
470 pF	1005	0.50 ± 0.05	± 5%				CGA2B2NP02A471J050BA	CGA2B2NP01H471J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A471J080AA	CGA3E2NP01H471J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W471J060AA				
560 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H561J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A561J080AA	CGA3E2NP01H561J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W561J060AA				
680 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H681J050BA
	1608	0.80 ± 0.10	± 5%				CGA3E2NP02A681J080AA	CGA3E2NP01H681J080AA
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W681J060AA				
820 pF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H821J050BA
	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E821J080AA	CGA3E2NP02A821J080AA	CGA3E2NP01H821J080AA	
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W821J060AA				
1 nF	1005	0.50 ± 0.05	± 5%					CGA2B2NP01H102J050BA
	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E102J080AA	CGA3E2NP02A102J080AA	CGA3E2NP01H102J080AA	
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W102J060AA		CGA4C2NP02A102J060AA		
1.2 nF	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E122J080AA	CGA3E2NP02A122J080AA	CGA3E2NP01H122J080AA	
	2012	0.60 ± 0.15	± 5%	CGA4C4NP02W122J060AA		CGA4C2NP02A122J060AA		
	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E152J080AA	CGA3E2NP02A152J080AA	CGA3E2NP01H152J080AA	
1.5 nF	2012	0.60 ± 0.15	± 5%			CGA4C2NP02A152J060AA		
		0.85 ± 0.15	± 5%	CGA4F4NP02W152J085AA				
	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E182J080AA	CGA3E2NP02A182J080AA	CGA3E2NP01H182J080AA	
1.8 nF	2012	0.85 ± 0.15	± 5%	CGA4F4NP02W182J085AA		CGA4F2NP02A182J085AA		
	1608	0.80 ± 0.10	± 5%		CGA3E3NP02E222J080AA	CGA3E2NP02A222J080AA	CGA3E2NP01H222J080AA	
	2012	0.85 ± 0.15	± 5%	CGA4F4NP02W222J085AA		CGA4F2NP02A222J085AA		
2.7 nF	1608	0.80 ± 0.10	± 5%				CGA3E2NP01H272J080AA	
		0.80 + 0.15/-0.1	± 5%			CGA3E2NP02A272J080AA		
	2012	0.60 ± 0.15	± 5%				CGA4C2NP01H272J060AA	
3.3 nF		1.25 ± 0.20	± 5%	CGA4J4NP02W272J125AA		CGA4J2NP02A272J125AA		
	1608	0.80 ± 0.10	± 5%				CGA3E2NP01H332J080AA	
		0.80 + 0.15/-0.1	± 5%			CGA3E2NP02A332J080AA		
3.9 nF		0.60 ± 0.15	± 5%				CGA4C2NP01H332J060AA	
	2012	0.85 ± 0.15	± 5%	CGA4F3NP02E332J085AA				
		1.25 ± 0.20	± 5%	CGA4J4NP02W332J125AA		CGA4J2NP02A332J125AA		
3.9 nF	1608	0.80 ± 0.10	± 5%				CGA3E2NP01H392J080AA	
		0.60 ± 0.15	± 5%				CGA4C2NP01H392J060AA	
	2012	1.25 ± 0.20	± 5%	CGA4J4NP02W392J125AA	CGA4J3NP02E392J125AA	CGA4J2NP02A392J125AA		
4.7 nF		0.60 ± 0.15	± 5%			CGA5C2NP02A392J060AA		
	3216	0.85 ± 0.15	± 5%	CGA5F4NP02J392J085AA				
	1608	0.80 ± 0.10	± 5%				CGA3E2NP01H472J080AA	
4.7 nF		0.60 ± 0.15	± 5%				CGA4C2NP01H472J060AA	
	2012	1.25 ± 0.20	± 5%	CGA4J4NP02W472J125AA	CGA4J3NP02E472J125AA	CGA4J2NP02A472J125AA		
	3216	0.85 ± 0.15	± 5%	CGA5F4NP02J472J085AA		CGA5F2NP02A472J085AA		
5.6 nF	1608	0.80 ± 0.10	± 5%				CGA3E2NP01H562J080AA	
		0.60 ± 0.15	± 5%				CGA4C2NP01H562J060AA	
	2012	1.25 ± 0.20	± 5%	CGA4J4NP02W562J125AA	CGA4J3NP02E562J125AA	CGA4J2NP02A562J125AA		
5.6 nF		0.60 ± 0.15	± 5%				CGA5C2NP01H562J060AA	
	3216	0.85 ± 0.15	± 5%			CGA5F2NP02A562J085AA		
		1.15 ± 0.15	± 5%	CGA5H4NP02J562J115AA				



## 电容 范围表

### 种类 1 (温度补偿用)

温度特性: NP0 (-55 ~ +150°C、0 ± 30 ppm/°C)

电容	尺寸	厚度 (mm)	电容容差	目录型号				
				额定电压 Edc : 630V	额定电压 Edc : 450V	额定电压 Edc : 250V	额定电压 Edc : 100V	额定电压 Edc : 50V
6.8 nF	1608	0.80 ± 0.10	± 5%					CGA3E2NP01H682J080AA
		0.60 ± 0.15	± 5%					CGA4C2NP01H682J060AA
	2012	1.25 ± 0.20	± 5%			CGA4J3NP02E682J125AA	CGA4J2NP02A682J125AA	
		0.60 ± 0.15	± 5%					CGA5C2NP01H682J060AA
8.2 nF	1608	0.80 ± 0.10	± 5%					CGA3E2NP01H822J080AA
		0.60 ± 0.15	± 5%					CGA4C2NP01H822J060AA
	2012	1.25 ± 0.20	± 5%			CGA4J3NP02E822J125AA	CGA4J2NP02A822J125AA	
		0.60 ± 0.15	± 5%					CGA5C2NP01H822J060AA
10 nF	3216	1.15 ± 0.15	± 5%	CGA5H4NP02J682J115AA	CGA5H4NP02W682J115AA		CGA5H2NP02A682J115AA	
		1.60 ± 0.20	± 5%	CGA5L4NP02J822J160AA			CGA5H2NP02A822J115AA	
	3225	1.25 ± 0.20	± 5%	CGA6J4NP02J822J125AA				
		0.60 ± 0.15	± 5%					CGA3E2NP01H103J080AA
15 nF	2012	0.85 ± 0.15	± 5%					CGA4C2NP01H103J060AA
		0.60 ± 0.15	± 5%					CGA5C2NP01H103J060AA
	3216	1.15 ± 0.15	± 5%			CGA4J3NP02E103J125AA	CGA4J2NP02A103J125AA	
		1.60 ± 0.20	± 5%	CGA5L4NP02J103J160AA	CGA5L4NP02W103J160AA			CGA5H3NP02E103J115AA
22 nF	3225	1.25 ± 0.20	± 5%	CGA6J4NP02J103J125AA				CGA5H2NP02A103J115AA
		0.60 ± 0.15	± 5%					CGA4F2NP01H153J085AA
	2012	0.85 ± 0.15	± 5%			CGA5L4NP02W153J160AA	CGA5L3NP02E153J160AA	CGA5C2NP01H153J060AA
		0.60 ± 0.15	± 5%					CGA6J2NP02A153J125AA
33 nF	3216	1.15 ± 0.15	± 5%					CGA4J2NP01H223J125AA
		1.60 ± 0.20	± 5%	CGA6L4NP02J153J160AA				CGA5C2NP01H223J060AA
	3225	1.25 ± 0.20	± 5%			CGA5L3NP02E223J160AA	CGA5L2NP02A223J160AA	
		1.60 ± 0.20	± 5%	CGA6L3NP02E223J160AA	CGA6L2NP02A223J160AA			CGA6J2NP01H223J125AA
47 nF	2012	1.25 ± 0.20	± 5%	CGA6N4NP02J223J230AA	CGA6N4NP02W223J230AA			CGA4J2NP01H333J125AA
		0.85 ± 0.15	± 5%					CGA5F2NP01H333J085AA
	3216	1.60 + 0.3/-0.1	± 5%				CGA5L2NP02A333J160AA	CGA6L2NP01H333J160AA
		1.60 ± 0.20	± 5%					CGA6M2NP02A333J200AA
68 nF	3225	2.00 ± 0.20	± 5%					CGA6N3NP02E333J230AA
		2.30 ± 0.20	± 5%	CGA6P4NP02J333J250AA	CGA6P4NP02W333J250AA			
	4532	2.00 ± 0.20	± 5%	CGA8M4NP02J333J200KA				CGA5H2NP01H473J115AA
		1.15 ± 0.15	± 5%					CGA6M2NP01H473J200AA
100 nF	3216	2.00 ± 0.20	± 5%					CGA6N2NP02A473J230AA
		2.50 ± 0.30	± 5%			CGA6P3NP02E473J250AA		CGA8L2NP01H473J160KA
	4532	2.00 ± 0.20	± 5%					CGA8M2NP02A473J200KA
		2.30 ± 0.20	± 5%	CGA8N4NP02W473J230KA				
150 nF	3216	1.60 ± 0.20	± 5%	CGA8R4NP02J473J320KA				CGA5L2NP01H683J160AA
		2.00 ± 0.20	± 5%					CGA6M2NP01H683J200AA
	3225	2.30 ± 0.20	± 5%					CGA6N2NP02A683J230AA
		1.60 ± 0.20	± 5%					CGA8L2NP01H683J160KA
220 nF	4532	2.30 ± 0.20	± 5%			CGA8N4NP02E683J230KN		
		2.50 ± 0.30	± 5%					CGA8P2NP02A683J250KA
	3216	3.20 ± 0.30	± 5%	CGA8R4NP02W683J320KA				
		1.60 ± 0.20	± 5%					CGA5L2NP01H104J160AA
220 nF	3225	2.50 ± 0.30	± 5%					CGA6P2NP01H104J250AA
		2.00 ± 0.20	± 5%					CGA8M2NP01H104J200KA
	4532	3.20 ± 0.30	± 5%			CGA8R4NP02E104J320KN	CGA8R2NP02A104J320KA	
		2.80 ± 0.30	± 5%	CGA9Q4NP02W104J280KA				
150 nF	4532	2.50 ± 0.30	± 5%					CGA8P2NP01H154J250KA
		2.30 ± 0.20	± 5%			CGA9N4NP02E154J230KN	CGA9N2NP02A154J230KA	
220 nF	4532	3.20 ± 0.30	± 5%					CGA8R2NP01H224J320KA



## 电容 范围表

### 种类 2 (高介电率类)

温度特性: X8R (-55 ~ +150°C、±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 100V	Rated Voltage Edc: 50V	Rated Voltage Edc: 25V	Rated Voltage Edc: 16V
150 pF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A151K050BA	CGA2B2X8R1H151K050BA		
			± 20%	CGA2B2X8R2A151M050BA	CGA2B2X8R1H151M050BA		
220 pF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A221K050BA	CGA2B2X8R1H221K050BA		
			± 20%	CGA2B2X8R2A221M050BA	CGA2B2X8R1H221M050BA		
330 pF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A331K050BA	CGA2B2X8R1H331K050BA		
			± 20%	CGA2B2X8R2A331M050BA	CGA2B2X8R1H331M050BA		
470 pF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A471K050BA	CGA2B2X8R1H471K050BA		
			± 20%	CGA2B2X8R2A471M050BA	CGA2B2X8R1H471M050BA		
680 pF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A681K050BA	CGA2B2X8R1H681K050BA		
			± 20%	CGA2B2X8R2A681M050BA	CGA2B2X8R1H681M050BA		
1 nF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A102K050BA	CGA2B2X8R1H102K050BA		
			± 20%	CGA2B2X8R2A102M050BA	CGA2B2X8R1H102M050BA		
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A102K080AA	CGA3E2X8R1H102K080AA		
			± 20%	CGA3E2X8R2A102M080AA	CGA3E2X8R1H102M080AA		
1.5 nF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A152K050BA	CGA2B2X8R1H152K050BA		
			± 20%	CGA2B2X8R2A152M050BA	CGA2B2X8R1H152M050BA		
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A152K080AA	CGA3E2X8R1H152K080AA		
			± 20%	CGA3E2X8R2A152M080AA	CGA3E2X8R1H152M080AA		
2.2 nF	1005	0.50 ± 0.05	± 10%	CGA2B2X8R2A222K050BA	CGA2B2X8R1H222K050BA		
			± 20%	CGA2B2X8R2A222M050BA	CGA2B2X8R1H222M050BA		
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A222K080AA	CGA3E2X8R1H222K080AA		
			± 20%	CGA3E2X8R2A222M080AA	CGA3E2X8R1H222M080AA		
3.3 nF	1005	0.50 ± 0.05	± 10%	CGA2B3X8R2A332K050BB	CGA2B2X8R1H332K050BA		
			± 20%	CGA2B3X8R2A332M050BB	CGA2B2X8R1H332M050BA		
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A332K080AA	CGA3E2X8R1H332K080AA		
			± 20%	CGA3E2X8R2A332M080AA	CGA3E2X8R1H332M080AA		
4.7 nF	1005	0.50 ± 0.05	± 10%		CGA2B2X8R1H472K050BA		
			± 20%		CGA2B2X8R1H472M050BA		
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A472K080AA	CGA3E2X8R1H472K080AA		
			± 20%	CGA3E2X8R2A472M080AA	CGA3E2X8R1H472M080AA		
6.8 nF	1005	0.50 ± 0.05	± 10%		CGA2B3X8R1H682K050BB	CGA2B2X8R1E682K050BA	
			± 20%		CGA2B3X8R1H682M050BB	CGA2B2X8R1E682M050BA	
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A682K080AA	CGA3E2X8R1H682K080AA		
			± 20%	CGA3E2X8R2A682M080AA	CGA3E2X8R1H682M080AA		
10 nF	1005	0.50 ± 0.05	± 10%		CGA2B3X8R1H103K050BB	CGA2B2X8R1E103K050BA	
			± 20%		CGA2B3X8R1H103M050BB	CGA2B2X8R1E103M050BA	
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A103K080AA	CGA3E2X8R1H103K080AA		
			± 20%	CGA3E2X8R2A103M080AA	CGA3E2X8R1H103M080AA		
15 nF	1005	0.50 ± 0.05	± 10%			CGA2B3X8R1E153K050BB	
			± 20%			CGA2B3X8R1E153M050BB	
	1608	0.80 ± 0.10	± 10%	CGA3E2X8R2A153K080AA	CGA3E2X8R1H153K080AA		
			± 20%	CGA3E2X8R2A153M080AA	CGA3E2X8R1H153M080AA		
22 nF	1005	0.50 ± 0.05	± 10%			CGA2B3X8R1E223K050BB	
			± 20%			CGA2B3X8R1E223M050BB	
	1608	0.80 ± 0.10	± 10%	CGA3E3X8R2A223K080AB	CGA3E2X8R1H223K080AA		
			± 20%	CGA3E3X8R2A223M080AB	CGA3E2X8R1H223M080AA		
33 nF	2012	1.25 ± 0.20	± 10%	CGA4J2X8R2A223K125AA			
			± 20%	CGA4J2X8R2A223M125AA			
	1005	0.50 ± 0.05	± 10%				CGA2B3X8R1C333K050BB
			± 20%				CGA2B3X8R1C333M050BB
47 nF	1608	0.80 ± 0.10	± 10%		CGA3E2X8R1H473K080AA		
			± 20%		CGA3E2X8R1H473M080AA		
	2012	1.25 ± 0.20	± 10%	CGA4J3X8R2A473K125AB			
			± 20%	CGA4J3X8R2A473M125AB			



## 电容 范围表

### 种类 2 (高介电率类)

温度特性: X8R (-55 ~ +150°C、±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 100V	Rated Voltage Edc: 50V	Rated Voltage Edc: 25V	Rated Voltage Edc: 16V
68 nF	1608	0.80 ± 0.10	± 10%		CGA3E3X8R1H683K080AB	CGA3E2X8R1E683K080AA	
			± 20%		CGA3E3X8R1H683M080AB	CGA3E2X8R1E683M080AA	
	2012	1.25 ± 0.20	± 10%	CGA4J3X8R2A683K125AB	CGA4J2X8R1H683K125AA		
			± 20%	CGA4J3X8R2A683M125AB	CGA4J2X8R1H683M125AA		
	3216	1.15 ± 0.15	± 10%	CGA5H2X8R2A683K115AA			
			± 20%	CGA5H2X8R2A683M115AA			
100 nF	1608	0.80 ± 0.10	± 10%		CGA3E3X8R1H104K080AB	CGA3E2X8R1E104K080AA	
			± 20%		CGA3E3X8R1H104M080AB	CGA3E2X8R1E104M080AA	
	2012	1.25 ± 0.20	± 10%		CGA4J2X8R1H104K125AA		
			± 20%		CGA4J2X8R1H104M125AA		
	3216	1.15 ± 0.15	± 10%	CGA5H2X8R2A104K115AA			
			± 20%	CGA5H2X8R2A104M115AA			
150 nF	1608	0.80 ± 0.10	± 10%			CGA3E3X8R1E154K080AB	
			± 20%			CGA3E3X8R1E154M080AB	
	2012	1.25 ± 0.20	± 10%		CGA4J3X8R1H154K125AB		
			± 20%		CGA4J3X8R1H154M125AB		
	3216	1.60 ± 0.20	± 10%	CGA5L2X8R2A154K160AA			
			± 20%	CGA5L2X8R2A154M160AA			
220 nF	1608	0.80 ± 0.10	± 10%			CGA3E3X8R1E224K080AB	
			± 20%			CGA3E3X8R1E224M080AB	
	2012	1.25 ± 0.20	± 10%		CGA4J3X8R1H224K125AB	CGA4J2X8R1E224K125AA	
			± 20%		CGA4J3X8R1H224M125AB	CGA4J2X8R1E224M125AA	
	3216	1.15 ± 0.15	± 10%		CGA5H2X8R1H224K115AA		
			± 20%		CGA5H2X8R1H224M115AA		
3216	1.60 ± 0.20	± 10%	CGA5L3X8R2A224K160AB				
		± 20%	CGA5L3X8R2A224M160AB				
330 nF	1608	0.80 ± 0.10	± 10%				CGA3E3X8R1C334K080AB
			± 20%				CGA3E3X8R1C334M080AB
	2012	1.25 ± 0.20	± 10%			CGA4J2X8R1E334K125AA	
			± 20%			CGA4J2X8R1E334M125AA	
	3216	1.60 ± 0.20	± 10%	CGA5L3X8R2A334K160AB	CGA5L2X8R1H334K160AA		
			± 20%	CGA5L3X8R2A334M160AB	CGA5L2X8R1H334M160AA		
470 nF	1608	0.80 + 0.15/-0.10	± 10%				CGA3E3X8R1C474K080AB
			± 20%				CGA3E3X8R1C474M080AB
	2012	1.25 ± 0.20	± 10%			CGA4J3X8R1E474K125AB	
			± 20%			CGA4J3X8R1E474M125AB	
	3216	1.60 ± 0.20	± 10%		CGA5L2X8R1H474K160AA		
			± 20%		CGA5L2X8R1H474M160AA		
3225	2.00 ± 0.20	± 10%	CGA6M3X8R2A474K200AB				
		± 20%	CGA6M3X8R2A474M200AB				
680 nF	2012	1.25 ± 0.20	± 10%				CGA4J3X8R1C684K125AB
			± 20%				CGA4J3X8R1C684M125AB
	3216	1.15 ± 0.15	± 10%			CGA5H2X8R1E684K115AA	
			± 20%			CGA5H2X8R1E684M115AA	
	3216	1.60 ± 0.20	± 10%		CGA5L3X8R1H684K160AB		
			± 20%		CGA5L3X8R1H684M160AB		
3225	2.50 ± 0.30	± 10%	CGA6P3X8R2A684K250AB				
		± 20%	CGA6P3X8R2A684M250AB				
1 μF	2012	1.25 ± 0.20	± 10%				CGA4J3X8R1C105K125AB
			± 20%				CGA4J3X8R1C105M125AB
	3216	1.60 ± 0.20	± 10%		CGA5L3X8R1H105K160AB	CGA5L2X8R1E105K160AA	
			± 20%		CGA5L3X8R1H105M160AB	CGA5L2X8R1E105M160AA	
	3216	1.60 ± 0.20	± 10%			CGA5L3X8R1E155K160AB	
			± 20%			CGA5L3X8R1E155M160AB	
3225	1.60 ± 0.20	± 10%			CGA6L2X8R1E155K160AA		
		± 20%			CGA6L2X8R1E155M160AA		
2.2 μF	3216	1.60 ± 0.20	± 10%			CGA5L3X8R1E225K160AB	
			± 20%			CGA5L3X8R1E225M160AB	
	3225	2.00 ± 0.20	± 10%			CGA6M2X8R1E225K200AA	
			± 20%			CGA6M2X8R1E225M200AA	



## 电容 范围表

### 种类 2 (高介电率类)

温度特性: X8R (-55 ~ +150°C、±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 100V	Rated Voltage Edc: 50V	Rated Voltage Edc: 25V	Rated Voltage Edc: 16V
3.3 $\mu$ F	3216	1.60 $\pm$ 0.20	$\pm$ 10%				CGA5L3X8R1C335K160AB
			$\pm$ 20%			CGA5L3X8R1C335M160AB	
	3225	2.50 $\pm$ 0.30	$\pm$ 10%		CGA6P2X8R1E335K250AA		
			$\pm$ 20%		CGA6P2X8R1E335M250AA		
4.7 $\mu$ F	3216	1.60 $\pm$ 0.20	$\pm$ 10%				CGA5L3X8R1C475K160AB
			$\pm$ 20%			CGA5L3X8R1C475M160AB	
	3225	2.50 $\pm$ 0.30	$\pm$ 10%		CGA6P3X8R1E475K250AB		
			$\pm$ 20%		CGA6P3X8R1E475M250AB		
6.8 $\mu$ F	3225	2.00 $\pm$ 0.20	$\pm$ 10%				CGA6M3X8R1C685K200AB
			$\pm$ 20%			CGA6M3X8R1C685M200AB	
10 $\mu$ F	3225	2.50 $\pm$ 0.30	$\pm$ 10%				CGA6P3X8R1C106K250AB
			$\pm$ 20%			CGA6P3X8R1C106M250AB	