

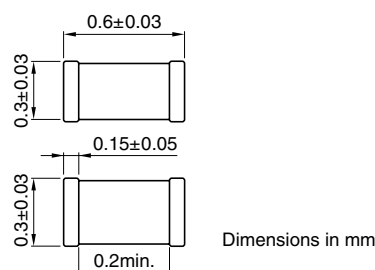
Ceramic Capacitors

For General Use
SMD

C Series

C0603 (EIA:CC0201) TYPE

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.3±0.03	C0603C0G1E0R5C
0.75*	±0.25pF	0.3±0.03	C0603C0G1E0R75C
1	±0.25pF	0.3±0.03	C0603C0G1E010C
1.5	±0.25pF	0.3±0.03	C0603C0G1E01R5C
2	±0.25pF	0.3±0.03	C0603C0G1E020C
3	±0.25pF	0.3±0.03	C0603C0G1E030C
4	±0.25pF	0.3±0.03	C0603C0G1E040C
5	±0.25pF	0.3±0.03	C0603C0G1E050C
6	±0.5pF	0.3±0.03	C0603C0G1E060D
7	±0.5pF	0.3±0.03	C0603C0G1E070D
8	±0.5pF	0.3±0.03	C0603C0G1E080D
9	±0.5pF	0.3±0.03	C0603C0G1E090D
10	±0.5pF	0.3±0.03	C0603C0G1E100D
12	±5%	0.3±0.03	C0603C0G1E120J
15	±5%	0.3±0.03	C0603C0G1E150J
18	±5%	0.3±0.03	C0603C0G1E180J
20	±5%	0.3±0.03	C0603C0G1E200J
22	±5%	0.3±0.03	C0603C0G1E220J
27	±5%	0.3±0.03	C0603C0G1E270J
33	±5%	0.3±0.03	C0603C0G1E330J
39	±5%	0.3±0.03	C0603C0G1E390J
47	±5%	0.3±0.03	C0603C0G1E470J
56	±5%	0.3±0.03	C0603C0G1E560J
68	±5%	0.3±0.03	C0603C0G1E680J
82	±5%	0.3±0.03	C0603C0G1E820J
100	±5%	0.3±0.03	C0603C0G1E101J

CAPACITANCE RANGES:CLASS 2

TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100	±10%	0.3±0.03	C0603X5R1E101K
150*	±10%	0.3±0.03	C0603X5R1E151K
220	±10%	0.3±0.03	C0603X5R1E221K
330*	±10%	0.3±0.03	C0603X5R1E331K
470	±10%	0.3±0.03	C0603X5R1E471K
680*	±10%	0.3±0.03	C0603X5R1E681K
1000	±10%	0.3±0.03	C0603X5R1E102K
1500*	±10%	0.3±0.03	C0603X5R1E152K
2200	±10%	0.3±0.03	C0603X5R1E222K

RATED VOLTAGE Edc:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3300*	±10%	0.3±0.03	C0603X5R1C332K
4700	±10%	0.3±0.03	C0603X5R1C472K

RATED VOLTAGE Edc:10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
6800*	±10%	0.3±0.03	C0603X5R1A682K

RATED VOLTAGE Edc:6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	±10%	0.3±0.03	C0603X5R0J103K

TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%)

RATED VOLTAGE Edc:25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1000	+80, -20%	0.3±0.03	C0603Y5V1E102Z

RATED VOLTAGE Edc:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	+80, -20%	0.3±0.03	C0603Y5V1C103Z

* These products marked * are nonstandard.

• For more information about products with other capacitance or other data, please contact us.

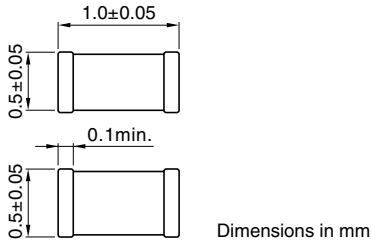
Ceramic Capacitors

For General Use

SMD

C Series

C1005 (EIA:CC0402) TYPE SHAPES AND DIMENSIONS



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C) RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.5±0.05	C1005C0G1H0R5C
0.75*	±0.25pF	0.5±0.05	C1005C0G1HR75C
1	±0.25pF	0.5±0.05	C1005C0G1H010C
1.5	±0.25pF	0.5±0.05	C1005C0G1H1R5C
2	±0.25pF	0.5±0.05	C1005C0G1H020C
3	±0.25pF	0.5±0.05	C1005C0G1H030C
4	±0.25pF	0.5±0.05	C1005C0G1H040C
5	±0.25pF	0.5±0.05	C1005C0G1H050C
6	±0.5pF	0.5±0.05	C1005C0G1H060D
7	±0.5pF	0.5±0.05	C1005C0G1H070D
8	±0.5pF	0.5±0.05	C1005C0G1H080D
9	±0.5pF	0.5±0.05	C1005C0G1H090D
10	±0.5pF	0.5±0.05	C1005C0G1H100D
12	±5%	0.5±0.05	C1005C0G1H120J
15	±5%	0.5±0.05	C1005C0G1H150J
18	±5%	0.5±0.05	C1005C0G1H180J
22	±5%	0.5±0.05	C1005C0G1H220J
27	±5%	0.5±0.05	C1005C0G1H270J
33	±5%	0.5±0.05	C1005C0G1H330J
39	±5%	0.5±0.05	C1005C0G1H390J
47	±5%	0.5±0.05	C1005C0G1H470J
56	±5%	0.5±0.05	C1005C0G1H560J
68	±5%	0.5±0.05	C1005C0G1H680J
82	±5%	0.5±0.05	C1005C0G1H820J
100	±5%	0.5±0.05	C1005C0G1H101J
120	±5%	0.5±0.05	C1005C0G1H121J
150	±5%	0.5±0.05	C1005C0G1H151J
180	±5%	0.5±0.05	C1005C0G1H181J
220	±5%	0.5±0.05	C1005C0G1H221J
270	±5%	0.5±0.05	C1005C0G1H271J
330	±5%	0.5±0.05	C1005C0G1H331J

CAPACITANCE RANGES:CLASS 2 TEMPERATURE CHARACTERISTICS: X7R (±15%) RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220	±10%	0.5±0.05	C1005X7R1H221K
330*	±10%	0.5±0.05	C1005X7R1H331K
470	±10%	0.5±0.05	C1005X7R1H471K
680*	±10%	0.5±0.05	C1005X7R1H681K
1000	±10%	0.5±0.05	C1005X7R1H102K
1500*	±10%	0.5±0.05	C1005X7R1H152K
2200	±10%	0.5±0.05	C1005X7R1H222K
3300*	±10%	0.5±0.05	C1005X7R1H332K
4700	±10%	0.5±0.05	C1005X7R1H472K
6800*	±10%	0.5±0.05	C1005X7R1H682K

RATED VOLTAGE Edc:25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	±10%	0.5±0.05	C1005X7R1E103K
15000*	±10%	0.5±0.05	C1005X7R1E153K
22000	±10%	0.5±0.05	C1005X7R1E223K

RATED VOLTAGE Edc:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
33000*	±10%	0.5±0.05	C1005X7R1C333K
47000	±10%	0.5±0.05	C1005X7R1C473K

TEMPERATURE CHARACTERISTICS: X5R (±15%) RATED VOLTAGE Edc:10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
68000*	±10%	0.5±0.05	C1005X5R1A683K
100000	±10%	0.5±0.05	C1005X5R1A104K

TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%) RATED VOLTAGE Edc:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	+80, -20%	0.5±0.05	C1005Y5V1C104Z

RATED VOLTAGE Edc:10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	+80, -20%	0.5±0.05	C1005Y5V1A224Z
470000	+80, -20%	0.5±0.05	C1005Y5V1A474Z

* These products marked * are nonstandard.

• For more information about products with other capacitance or other data, please contact us.

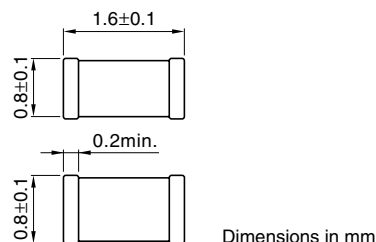
Ceramic Capacitors

For General Use

SMD

C Series

C1608 (EIA:CC0603) TYPE SHAPES AND DIMENSIONS



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C) RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.8±0.1	C1608C0G1H0R5C
0.75*	±0.25pF	0.8±0.1	C1608C0G1HR75C
1	±0.25pF	0.8±0.1	C1608C0G1H010C
1.5	±0.25pF	0.8±0.1	C1608C0G1H1R5C
2	±0.25pF	0.8±0.1	C1608C0G1H020C
3	±0.25pF	0.8±0.1	C1608C0G1H030C
4	±0.25pF	0.8±0.1	C1608C0G1H040C
5	±0.25pF	0.8±0.1	C1608C0G1H050C
6	±0.5pF	0.8±0.1	C1608C0G1H060D
7	±0.5pF	0.8±0.1	C1608C0G1H070D
8	±0.5pF	0.8±0.1	C1608C0G1H080D
9	±0.5pF	0.8±0.1	C1608C0G1H090D
10	±0.5pF	0.8±0.1	C1608C0G1H100D
12	±5%	0.8±0.1	C1608C0G1H120J
15	±5%	0.8±0.1	C1608C0G1H150J
18	±5%	0.8±0.1	C1608C0G1H180J
22	±5%	0.8±0.1	C1608C0G1H220J
27	±5%	0.8±0.1	C1608C0G1H270J
33	±5%	0.8±0.1	C1608C0G1H330J
39	±5%	0.8±0.1	C1608C0G1H390J
47	±5%	0.8±0.1	C1608C0G1H470J
56	±5%	0.8±0.1	C1608C0G1H560J
68	±5%	0.8±0.1	C1608C0G1H680J
82	±5%	0.8±0.1	C1608C0G1H820J
100	±5%	0.8±0.1	C1608C0G1H101J
120	±5%	0.8±0.1	C1608C0G1H121J
150	±5%	0.8±0.1	C1608C0G1H151J
180	±5%	0.8±0.1	C1608C0G1H181J
220	±5%	0.8±0.1	C1608C0G1H221J
270	±5%	0.8±0.1	C1608C0G1H271J
330	±5%	0.8±0.1	C1608C0G1H331J
390	±5%	0.8±0.1	C1608C0G1H391J
470	±5%	0.8±0.1	C1608C0G1H471J
560	±5%	0.8±0.1	C1608C0G1H561J
680	±5%	0.8±0.1	C1608C0G1H681J
820	±5%	0.8±0.1	C1608C0G1H821J
1000	±5%	0.8±0.1	C1608C0G1H102J
1200	±5%	0.8±0.1	C1608C0G1H122J
1500	±5%	0.8±0.1	C1608C0G1H152J
1800	±5%	0.8±0.1	C1608C0G1H182J
2200	±5%	0.8±0.1	C1608C0G1H222J

CAPACITANCE RANGES:CLASS 2 TEMPERATURE CHARACTERISTICS: X7R (±15%) RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220	±10%	0.8±0.1	C1608X7R1H221K
330*	±10%	0.8±0.1	C1608X7R1H331K
470	±10%	0.8±0.1	C1608X7R1H471K
680*	±10%	0.8±0.1	C1608X7R1H681K
1000	±10%	0.8±0.1	C1608X7R1H102K
1500*	±10%	0.8±0.1	C1608X7R1H152K
2200	±10%	0.8±0.1	C1608X7R1H222K
3300*	±10%	0.8±0.1	C1608X7R1H332K
4700	±10%	0.8±0.1	C1608X7R1H472K
6800*	±10%	0.8±0.1	C1608X7R1H682K
10000	±10%	0.8±0.1	C1608X7R1H103K
15000*	±10%	0.8±0.1	C1608X7R1H153K
22000	±10%	0.8±0.1	C1608X7R1H223K
33000*	±10%	0.8±0.1	C1608X7R1H333K
47000	±10%	0.8±0.1	C1608X7R1H473K
68000*	±10%	0.8±0.1	C1608X7R1H683K
100000	±10%	0.8±0.1	C1608X7R1H104K

RATED VOLTAGE Edc:25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	±10%	0.8±0.1	C1608X7R1E104K
150000	±10%	0.8±0.1	C1608X7R1E154K
	±20%	0.8±0.1	C1608X7R1E154M

RATED VOLTAGE Edc:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	±10%	0.8±0.1	C1608X7R1C224K
	±20%	0.8±0.1	C1608X7R1C224M

TEMPERATURE CHARACTERISTICS: X5R (±15%) RATED VOLTAGE Edc:10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
330000	±10%	0.8±0.1	C1608X5R1A334K
	±20%	0.8±0.1	C1608X5R1A334M
470000	±10%	0.8±0.1	C1608X5R1A474K
	±20%	0.8±0.1	C1608X5R1A474M
680000	±10%	0.8 ^{+0.15} _{-0.1}	C1608X5R1A684K
	±20%	0.8 ^{+0.15} _{-0.1}	C1608X5R1A684M
1000000 [1μF]	±10%	0.8 ^{+0.15} _{-0.1}	C1608X5R1A105K
	±20%	0.8 ^{+0.15} _{-0.1}	C1608X5R1A105M

* These products marked * are nonstandard.

• For more information about products with other capacitance or other data, please contact us.

Ceramic Capacitors

C Series

For General Use
SMD

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	+80, -20%	0.8±0.1	C1608Y5V1H104Z
220000	+80, -20%	0.8±0.1	C1608Y5V1H224Z

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	+80, -20%	0.8±0.1	C1608Y5V1E474Z

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1000000 [1μF]	+80, -20%	0.8±0.1	C1608Y5V1C105Z

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
2200000 [2.2μF]	+80, -20%	0.8±0.1	C1608Y5V1A225Z

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- All specifications are subject to change without notice.

Ceramic Capacitors

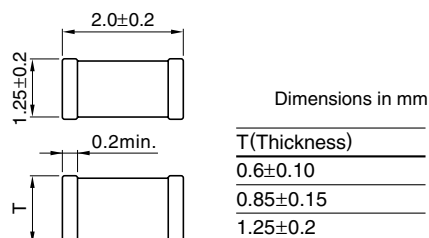
For General Use

SMD

C Series

C2012 (EIA:CC0805) TYPE

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
2700	±5%	0.6±0.15	C2012C0G1H272J
3300	±5%	0.6±0.15	C2012C0G1H332J
3900	±5%	0.85±0.15	C2012C0G1H392J
4700	±5%	0.85±0.15	C2012C0G1H472J
5600	±5%	0.85±0.15	C2012C0G1H562J
6800	±5%	1.25±0.2	C2012C0G1H682J
8200	±5%	1.25±0.2	C2012C0G1H822J
10000	±5%	1.25±0.2	C2012C0G1H103J

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000*	±10%	1.25±0.2	C2012X7R1H104K
150000	±10%	1.25±0.2	C2012X7R1H154K
	±20%	1.25±0.2	C2012X7R1H154M
220000	±10%	1.25±0.2	C2012X7R1H224K
	±20%	1.25±0.2	C2012X7R1H224M
330000	±10%	1.25±0.2	C2012X7R1H334K
	±20%	1.25±0.2	C2012X7R1H334M

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	±10%	1.25±0.2	C2012X7R1E474K
	±20%	1.25±0.2	C2012X7R1E474M

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
680000	±10%	1.25±0.2	C2012X7R1C684K
	±20%	1.25±0.2	C2012X7R1C684M
1000000	±10%	1.25±0.2	C2012X7R1C105K
	±20%	1.25±0.2	C2012X7R1C105M

TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1500000	±10%	1.25±0.2	C2012X5R1A155K
[1.5μF]	±20%	1.25±0.2	C2012X5R1A155M
2200000	±10%	1.25±0.2	C2012X5R1A225K
[2.2μF]	±20%	1.25±0.2	C2012X5R1A225M
3300000	±10%	1.25±0.2	C2012X5R1A335K
[3.3μF]	±20%	1.25±0.2	C2012X5R1A335M

RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
4700000	±10%	1.25±0.2	C2012X5R0J475K
[4.7μF]	±20%	1.25±0.2	C2012X5R0J475M
6800000	±20%	1.25±0.2	C2012X5R0J685M
10000000	±20%	1.25±0.2	C2012X5R0J106M
[10μF]			

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	+80, -20%	1.25±0.2	C2012Y5V1H474Z
1000000	+80, -20%	1.25±0.2	C2012Y5V1H105Z
[1μF]			

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
22000000	+80, -20%	1.25±0.2	C2012Y5V1E225Z
[2.2μF]			

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
47000000	+80, -20%	1.25±0.2	C2012Y5V1C475Z
[4.7μF]			

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000000	+80, -20%	1.25±0.2	C2012Y5V1A106Z
[10μF]			

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Ceramic Capacitors

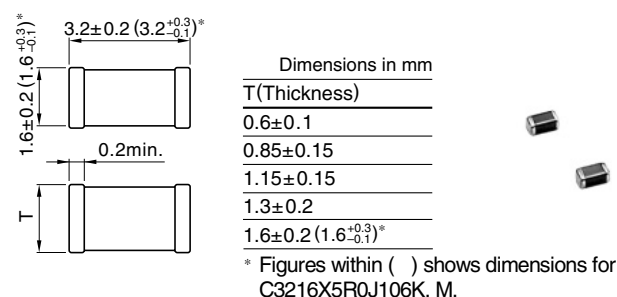
For General Use

SMD

C Series

C3216 (EIA:CC1206) TYPE

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3900	±5%	0.6±0.15	C3216C0G1H392J
4700	±5%	0.6±0.15	C3216C0G1H472J
5600	±5%	0.6±0.15	C3216C0G1H562J
6800	±5%	0.6±0.15	C3216C0G1H682J
8200	±5%	0.85±0.15	C3216C0G1H822J
10000	±5%	0.85±0.15	C3216C0G1H103J
15000	±5%	1.15±0.15	C3216C0G1H153J
22000	±5%	1.15±0.15	C3216C0G1H223J
33000	±5%	1.6±0.2	C3216C0G1H333J

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	±10%	1.6±0.2	C3216X7R1H474K
	±20%	1.6±0.2	C3216X7R1H474M

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
680000	±10%	1.6±0.2	C3216X7R1E684K
	±20%	1.6±0.2	C3216X7R1E684M
1000000	±10%	1.6±0.2	C3216X7R1E105K
[1μF]	±20%	1.6±0.2	C3216X7R1E105M
1500000	±10%	1.6±0.2	C3216X7R1E155K
[1.5μF]	±20%	1.6±0.2	C3216X7R1E155M
2200000	±10%	1.6±0.2	C3216X7R1E225K
[2.2μF]	±20%	1.6±0.2	C3216X7R1E225M

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3300000	±10%	1.6±0.2	C3216X5R1C335K
[3.3μF]	±20%	1.6±0.2	C3216X5R1C335M

RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
6800000	±10%	1.6±0.2	C3216X5R0J685K
[6.8μF]	±20%	1.6±0.2	C3216X5R0J685M
10000000	±10%	1.6+0.3/-0.1	C3216X5R0J106K
[10μF]	±20%	1.6+0.3/-0.1	C3216X5R0J106M

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
2200000	+80, -20%	1.15±0.15	C3216Y5V1H225Z
[2.2μF]			

RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
4700000	+80, -20%	1.15±0.15	C3216Y5V1E475Z
[4.7μF]			

RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000000	+80, -20%	1.6±0.2	C3216Y5V1C106Z
[10μF]			

RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
22000000	+80, -20%	1.6±0.2	C3216Y5V1A226Z
[22μF]			

• For more information about products with other capacitance or other data, please contact us.

• All specifications are subject to change without notice.