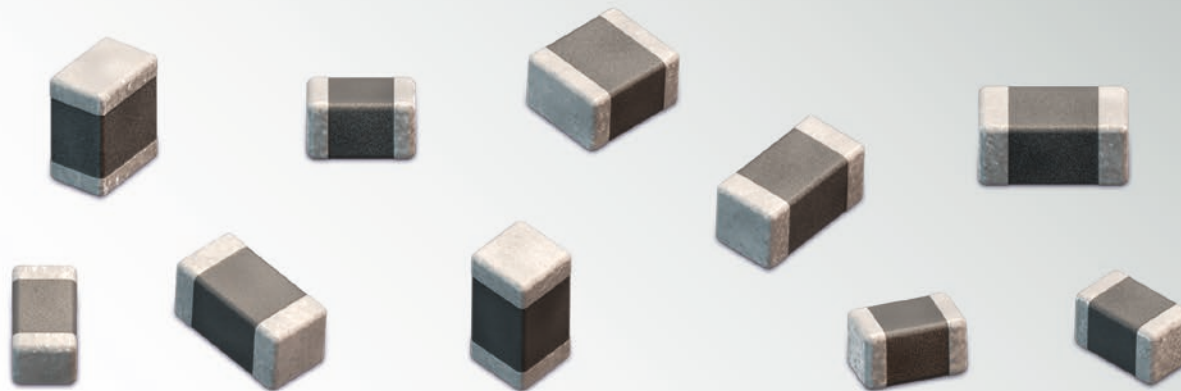


DESIGN KIT

WCAP-CSGP Multilayer Ceramic Chip Capacitors 0402

**SIZE:**

0402

TECHNICAL DATA:

Capacitance Range: 1pF ~ 4.7μF
Rated Voltages: 6.3V, 10V, 16V, 25V, 50V
Dielectrics: NPO, X7R, X5R
Termination: Cu / Ni / Sn

Order Code 885 050**Version 1.0**

WCAP-CSGP

Multilayer Ceramic Chip Capacitors 0402

NP0				X7R				X5R			
885 012 005 017 10V	885 012 005 040 25V	885 012 005 048 25V	885 012 005 056 50V	885 012 205 036 16V	885 012 205 044 25V	885 012 205 052 25V	885 012 205 060 50V	885 012 105 008 6.3V	Dielectric NP0 X7R X5R	Operating Temperature -55°C to +125°C -55°C to +125°C -55°C to +85°C	
NP00402471J010DFCT10000	NP0040210QJ025DFCT10000	NP00402221J025DFCT10000	NP0040215QJ050DFCT10000	X7R0402683K016DFCT10000	X7R0402102K025DFCT10000	X7R0402223K025DFCT10000	X7R0402681K050DFCT10000	X5R0402475M6R3DFCT10000			
470pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	10pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	200pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	15pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	68,000pF, ±10%, H=0.5mm DF≤5%, IR≥7.4G Ohm	1,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	22,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	680pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	4.7μF, ±20%, H=0.5mm DF≤20%, IR≥0.02G Ohm			
885 012 005 018 10V	885 012 005 041 25V	885 012 005 049 50V	885 012 005 057 50V	885 012 205 037 16V	885 012 205 045 25V	885 012 205 053 25V	885 012 205 061 50V	885 012 105 012 10V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP00402102J010DFCT10000	NP0040215QJ025DFCT10000	NP004021R0D050DFCT10000	NP0040222QJ050DFCT10000	X7R0402104K016DFCT10000	X7R0402152K025DFCT10000	X7R0402333K025DFCT10000	X7R0402102K050DFCT10000	X5R0402105M010DFCT10000			
1,000pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	15pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	1.0pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	22pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	100,000pF, ±10%, H=0.5mm DF≤5%, IR≥5G Ohm	1,500pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	33,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	1,000pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	1μF, ±20%, H=0.5mm DF≤15%, IR≥0.10G Ohm			
885 012 005 034 25V	885 012 005 042 25V	885 012 005 050 50V	885 012 005 058 50V	885 012 205 038 25V	885 012 205 046 25V	885 012 205 054 25V	885 012 205 062 50V	885 012 105 013 10V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004021R0D025DFCT10000	NP0040222QJ025DFCT10000	NP004021R5D050DFCT10000	NP0040233QJ050DFCT10000	X7R0402101K025DFCT10000	X7R0402222K025DFCT10000	X7R0402473K025DFCT10000	X7R0402152K050DFCT10000	X5R0402225M010DFCT10000			
1.0pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	22pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	1.5pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	33pF, ±5%, T=0.5mm Q≥1000, IR≥10G Ohm	100pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	2,200pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	47,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	1,500pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	2.2μF, ±20%, H=0.5mm DF≤15%, IR≥0.05G Ohm			
885 012 005 035 25V	885 012 005 043 25V	885 012 005 051 50V	885 012 005 059 50V	885 012 205 039 25V	885 012 205 047 25V	885 012 205 055 50V	885 012 205 063 50V	885 012 105 014 16V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004021R5D025DFCT10000	NP0040233QJ025DFCT10000	NP004022R2D050DFCT10000	NP0040247QJ050DFCT10000	X7R0402151K025DFCT10000	X7R0402332K025DFCT10000	X7R0402101K050DFCT10000	X7R0402222K050DFCT10000	X5R0402333M016DFCT10000			
1.5pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	33pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	2.2pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	47pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	150pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	3,300pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	100pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	2,200pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	33,000pF, ±20%, H=0.5mm DF≤5%, IR≥10G Ohm			
885 012 005 036 25V	885 012 005 044 25V	885 012 005 052 50V	885 012 005 060 50V	885 012 205 040 25V	885 012 205 048 25V	885 012 205 056 50V	885 012 205 064 50V	885 012 105 015 16V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004022R2D025DFCT10000	NP0040247QJ025DFCT10000	NP004023R3D050DFCT10000	NP0040268QJ050DFCT10000	X7R0402221K025DFCT10000	X7R0402472K025DFCT10000	X7R0402151K050DFCT10000	X7R0402332K050DFCT10000	X5R0402473M016DFCT10000			
2.2pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	47pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	3.3pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	68pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	220pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	4,700pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	150pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	3,300pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	47,000pF, ±20%, H=0.5mm DF≤5%, IR≥10G Ohm			
885 012 005 037 25V	885 012 005 045 25V	885 012 005 053 50V	885 012 005 061 50V	885 012 205 041 25V	885 012 205 049 25V	885 012 205 057 50V	885 012 205 065 50V	885 012 105 016 16V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004023R3D025DFCT10000	NP0040268QJ025DFCT10000	NP004024R7D050DFCT10000	NP00402101J050DFCT10000	X7R0402331K025DFCT10000	X7R0402682K025DFCT10000	X7R0402221K050DFCT10000	X7R0402472K050DFCT10000	X5R0402104M016DFCT10000			
3.3pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	68pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	4.7pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	100pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	330pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	6,800pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	220pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	4,700pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	100,000pF, ±20%, H=0.5mm DF≤5%, IR≥5G Ohm			
885 012 005 038 25V	885 012 005 046 25V	885 012 005 054 50V	885 012 005 062 50V	885 012 205 042 25V	885 012 205 050 25V	885 012 205 058 50V	885 012 205 066 50V	885 012 105 017 16V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004024R7D025DFCT10000	NP00402101J025DFCT10000	NP004026R8D050DFCT10000	NP00402151J050DFCT10000	X7R0402471K025DFCT10000	X7R0402103K025DFCT10000	X7R0402331K050DFCT10000	X7R0402682K050DFCT10000	X5R0402224M016DFCT10000			
4.7pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	100pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	6.8pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	150pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	470pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	10,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	330pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	6,800pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	220,000pF, ±20%, H=0.5mm DF≤10%, IR≥0.5G Ohm			
885 012 200 503 9 25V	885 012 005 047 25V	885 012 005 055 50V	885 012 005 063 50V	885 012 205 043 25V	885 012 205 051 25V	885 012 205 059 50V	885 012 205 067 50V	885 012 105 018 25V	Dielectric NP0 X7R X5R	Capacitance Characteristics* ±30ppm/°C; ±0.54%/°C ±15% ±15%	
NP004026R8D025DFCT10000	NP00402151J025DFCT10000	NP0040210QJ050DFCT10000	NP00402221J050DFCT10000	X7R0402681K025DFCT10000	X7R0402153K025DFCT10000	X7R0402471K050DFCT10000	X7R0402103K050DFCT10000	X5R0402104M025DFCT10000			
6.8pF, ±0.5pF, H=0.5mm Q≥400+20C, IR≥10G Ohm	150pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	10pF, ±5%, H=0.5mm Q≥400+20C, IR≥10G Ohm	220pF, ±5%, H=0.5mm Q≥1000, IR≥10G Ohm	680pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	15,000pF, ±10%, H=0.5mm DF≤3.5%, IR≥10G Ohm	470pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	10,000pF, ±10%, H=0.5mm DF≤2.5%, IR≥10G Ohm	100,000pF, ±20%, H=0.5mm DF≤10%, IR≥5G Ohm			

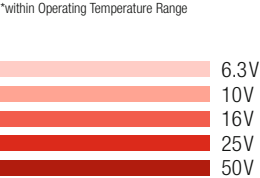


COMPLIANT
RoHS&REACH
WÜRTH ELEKTRONIK

6.3V
10V
16V
25V
50V

Dielectric	Operating Temperature
NP0	-55°C to +125°C
X7R	-55°C to +125°C
X5R	-55°C to +85°C

Dielectric	Capacitance Characteristics*
NP0	±30ppm/°C; ±0.54%/°C
X7R	±15%
X5R	±15%



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