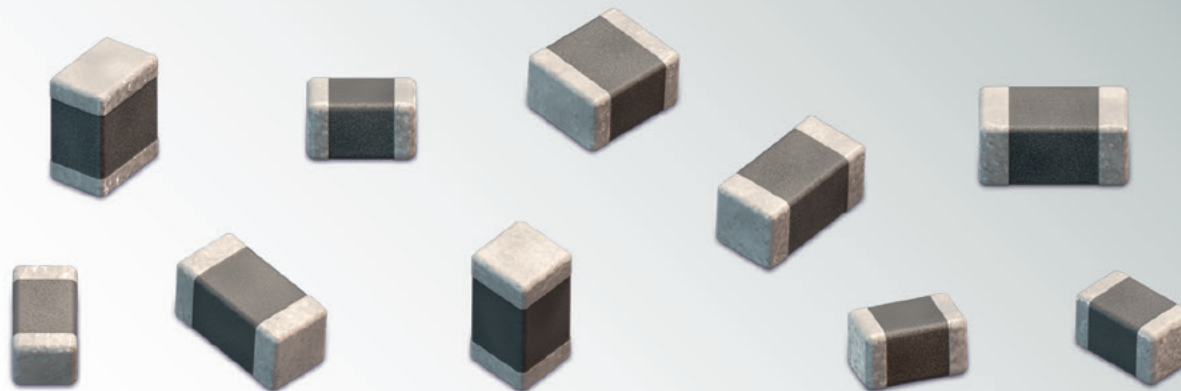


DESIGN KIT

WCAP-CSGP Multilayer Ceramic Chip Capacitors 0402

**SIZE:**

0402

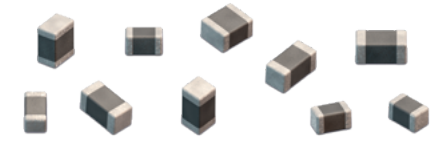
TECHNICAL DATA:

Capacitance Range: 1 pF – 4.7 μ F
Rated Voltages: 6.3 V_{DC} / 10 V_{DC} / 16 V_{DC} /
25 V_{DC} / 50 V_{DC}
Dielectrics: NPO / X7R / X5R
Termination: Cu / Ni / Sn

Order Code 885 050**Version 1.1**

DESIGN KIT

WCAP-CSGP Multilayer Ceramic Chip Capacitors 0402



NPO		X7R		X5R	
885 012 005 017 10V _{DC}	885 012 005 040 25V _{DC}	885 012 005 048 25V _{DC}	885 012 005 056 50V _{DC}	885 012 205 036 16V _{DC}	885 012 205 044 25V _{DC}
NP00402471J010DFCT10000	NP00402100J025DFCT10000	NP00402221J025DFCT10000	NP00402150J050DFCT10000	X7R0402683K016DFCT10000	X7R0402102K025DFCT10000
470 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	10 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	220 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	15 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	68 nF, ±10 %, H=0.5 mm DF _≤ 5 %, IR _≥ 7.4 GΩ	1 nF, ±10 %, H=0.5 mm DF _≤ 5 %, IR _≥ 10 GΩ
885 012 005 018 10V _{DC}	885 012 005 041 25V _{DC}	885 012 005 049 50V _{DC}	885 012 005 057 50V _{DC}	885 012 205 037 16V _{DC}	885 012 205 045 25V _{DC}
NP00402102J010DFCT10000	NP00402150J025DFCT10000	NP004021R0D050DFCT10000	NP00402220J050DFCT10000	X7R0402104K016DFCT10000	X7R0402152K025DFCT10000
1 nF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	15 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	1.0 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	22 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	100 nF, ±10 %, H=0.5 mm DF _≤ 5 %, IR _≥ 5 GΩ	1.5 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 034 25V _{DC}	885 012 005 042 25V _{DC}	885 012 005 050 50V _{DC}	885 012 005 058 50V _{DC}	885 012 205 038 25V _{DC}	885 012 205 046 25V _{DC}
NP004021R0D025DFCT10000	NP00402220J025DFCT10000	NP004021R5D050DFCT10000	NP00402330J050DFCT10000	X7R0402101K025DFCT10000	X7R040222K025DFCT10000
1 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	22 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	1.5 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	33 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	100 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ	2.2 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 035 25V _{DC}	885 012 005 043 25V _{DC}	885 012 005 051 50V _{DC}	885 012 005 059 50V _{DC}	885 012 205 039 25V _{DC}	885 012 205 047 25V _{DC}
NP004021R5D025DFCT10000	NP00402330J025DFCT10000	NP004022R2D050DFCT10000	NP00402470J050DFCT10000	X7R0402151K025DFCT10000	X7R040233K025DFCT10000
1.5 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	33 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	2.2 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	47 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	150 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 5 GΩ	3.3 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 036 25V _{DC}	885 012 005 044 25V _{DC}	885 012 005 052 50V _{DC}	885 012 005 060 50V _{DC}	885 012 205 040 25V _{DC}	885 012 205 048 25V _{DC}
NP004022R2D025DFCT10000	NP00402470J025DFCT10000	NP004023R3D050DFCT10000	NP00402680J050DFCT10000	X7R0402221K025DFCT10000	X7R0402472K025DFCT10000
2.2 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	47 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	3.3 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	68 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	330 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ	4.7 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 037 25V _{DC}	885 012 005 045 25V _{DC}	885 012 005 053 50V _{DC}	885 012 005 061 50V _{DC}	885 012 205 041 25V _{DC}	885 012 205 049 25V _{DC}
NP004023R3D025DFCT10000	NP00402680J025DFCT10000	NP004024R7D050DFCT10000	NP00402101J050DFCT10000	X7R0402331K025DFCT10000	X7R0402682K025DFCT10000
3.3 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	4.7 pF, ±0.5 pF, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	100 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	100 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	470 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ	6.8 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 038 25V _{DC}	885 012 005 046 25V _{DC}	885 012 005 054 50V _{DC}	885 012 005 062 50V _{DC}	885 012 205 042 25V _{DC}	885 012 205 050 25V _{DC}
NP004024R7D025DFCT10000	NP00402101J025DFCT10000	NP004026R8D050DFCT10000	NP00402151J050DFCT10000	X7R0402471K025DFCT10000	X7R0402103K025DFCT10000
4.7 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	100 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	6.8 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	150 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	470 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ	10 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ
885 012 005 039 25V _{DC}	885 012 005 047 25V _{DC}	885 012 005 055 50V _{DC}	885 012 005 063 50V _{DC}	885 012 205 043 25V _{DC}	885 012 205 051 25V _{DC}
NP004026R8D025DFCT10000	NP00402151J025DFCT10000	NP00402100J050DFCT10000	NP00402221J050DFCT10000	X7R0402681K025DFCT10000	X7R0402153K025DFCT10000
6.8 pF, ±0.5 pF, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	10 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	150 pF, ±5 %, H=0.5 mm Q _≥ 400+20 C, IR _≥ 10 GΩ	220 pF, ±5 %, H=0.5 mm Q _≥ 1000, IR _≥ 10 GΩ	680 pF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ	15 nF, ±10 %, H=0.5 mm DF _≤ 3.5 %, IR _≥ 10 GΩ

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

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

*within Operating Temperature Range

	6.3V _{DC}
	10V _{DC}
	16V _{DC}
	25V _{DC}
	50V _{DC}



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