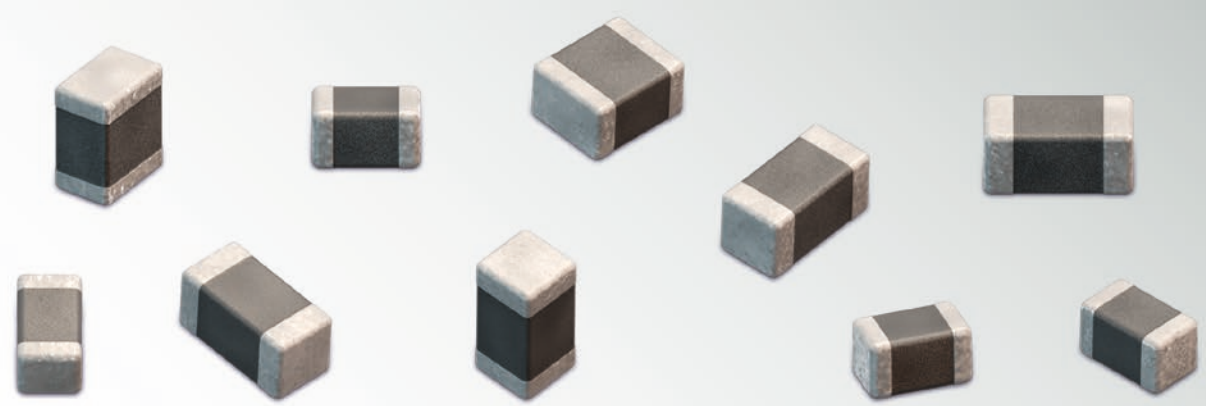




# DESIGN KIT

## 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

NPO			X7R			X5R		
<b>885 012 005 017</b> 10V	<b>885 012 005 040</b> 25V	<b>885 012 005 048</b> 25V	<b>885 012 005 056</b> 50V	<b>885 012 205 036</b> 16V	<b>885 012 205 044</b> 25V	<b>885 012 205 052</b> 25V	<b>885 012 205 060</b> 50V	<b>885 012 105 008</b> 6.3V
NP00402471J010DFCT10000 470pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP00402100J025DFCT10000 10pF, +/-5%, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402221J025DFCT10000 200pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP00402150J050DFCT10000 15pF, +/-5%, T=0.50mm Q>=400+20C, IR>=10G Ohm	X7R0402683K016DFCT10000 68,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402102K025DFCT10000 1,000pF, +/-10%, T=0.5mm DF<=3.5%, IR>= 10G Ohm	X7R0402223K025DFCT10000 22,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402681K050DFCT10000 680pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402475MR3DFCT10000 4,7µF, +/-20%, T=0.50mm DF<=20%, IR>= 0.02G Ohm
<b>885 012 005 018</b> 10V	<b>885 012 005 041</b> 25V	<b>885 012 005 049</b> 50V	<b>885 012 005 057</b> 50V	<b>885 012 205 037</b> 16V	<b>885 012 205 045</b> 25V	<b>885 012 205 053</b> 25V	<b>885 012 205 061</b> 50V	<b>885 012 105 012</b> 10V
NP00402102J010DFCT10000 1,000pF, +/-5%, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402150J025DFCT10000 15pF, +/-5%, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP004021R0D050DFCT10000 1.0pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402220J050DFCT10000 22pF, +/-5%, T=0.50mm Q>=400+20C, IR>= 10G Ohm	X7R0402104K016DFCT10000 100,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 5G Ohm	X7R0402152K025DFCT10000 1,500pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402333K025DFCT10000 33,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402102K050DFCT10000 1,000pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402105M010DFCT10000 1µF, +/-20%, T=0.50mm DF<=15%, IR>= 0.10G Ohm
<b>885 012 005 034</b> 25V	<b>885 012 005 042</b> 25V	<b>885 012 005 050</b> 50V	<b>885 012 005 058</b> 50V	<b>885 012 205 038</b> 25V	<b>885 012 205 046</b> 25V	<b>885 012 205 054</b> 25V	<b>885 012 205 062</b> 50V	<b>885 012 105 013</b> 10V
NP004021R0D025DFCT10000 1.0pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402220J025DFCT10000 22pF, +/-5%, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP004021R5D050DFCT10000 1.5pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>= 10G Ohm	NP00402330J050DFCT10000 33pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402101K025DFCT10000 100pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402222K025DFCT10000 2,200pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402473K025DFCT10000 47,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402152K050DFCT10000 1,500pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402225M010DFCT10000 2.2µF, +/-20%, T=0.50mm DF<=15%, IR>= 0.05G Ohm
<b>885 012 005 035</b> 25V	<b>885 012 005 043</b> 25V	<b>885 012 005 051</b> 50V	<b>885 012 005 059</b> 50V	<b>885 012 205 039</b> 25V	<b>885 012 205 047</b> 25V	<b>885 012 205 055</b> 50V	<b>885 012 205 063</b> 50V	<b>885 012 105 014</b> 16V
NP004021R5D025DFCT10000 1.5pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402330J025DFCT10000 33pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP004022R2D050DFCT10000 2.2pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402470J050DFCT10000 47pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402151K025DFCT10000 150pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402332K025DFCT10000 3,300pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402101K050DFCT10000 100pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X7R0402222K050DFCT10000 2,200pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402333M016DFCT10000 33,000pF, +/-20%, T=0.50mm DF<=5%, IR>= 10G Ohm
<b>885 012 005 036</b> 25V	<b>885 012 005 044</b> 25V	<b>885 012 005 052</b> 50V	<b>885 012 005 060</b> 50V	<b>885 012 205 040</b> 25V	<b>885 012 205 048</b> 25V	<b>885 012 205 056</b> 50V	<b>885 012 205 064</b> 50V	<b>885 012 105 015</b> 16V
NP004022R2D025DFCT10000 2.2pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402470J025DFCT10000 47pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP004023R3D050DFCT10000 3.3pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>= 10G Ohm	NP00402680J050DFCT10000 68pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402221K025DFCT10000 220pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402472K025DFCT10000 4,700pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402151K050DFCT10000 150pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X7R0402332K050DFCT10000 3,300pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402473M016DFCT10000 47,000pF, +/-20%, T=0.50mm DF<=5%, IR>= 10G Ohm
<b>885 012 005 037</b> 25V	<b>885 012 005 045</b> 25V	<b>885 012 005 053</b> 50V	<b>885 012 005 061</b> 50V	<b>885 012 205 041</b> 25V	<b>885 012 205 049</b> 25V	<b>885 012 205 057</b> 50V	<b>885 012 205 065</b> 50V	<b>885 012 105 016</b> 16V
NP004023R3D025DFCT10000 3.3pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402680J025DFCT10000 68pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP004024R7D050DFCT10000 4.7pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>= 10G Ohm	NP00402101J050DFCT10000 100pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402331K025DFCT10000 330pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402682K025DFCT10000 6,800pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402221K050DFCT10000 220pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X7R0402472K050DFCT10000 4,700pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402104M016DFCT10000 100,000pF, +/-20%, T=0.50mm DF<=5%, IR>= 5G Ohm
<b>885 012 005 038</b> 25V	<b>885 012 005 046</b> 25V	<b>885 012 005 054</b> 50V	<b>885 012 005 062</b> 50V	<b>885 012 205 042</b> 25V	<b>885 012 205 050</b> 25V	<b>885 012 205 058</b> 50V	<b>885 012 205 066</b> 50V	<b>885 012 105 017</b> 16V
NP004024R7D025DFCT10000 4.7pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402101J025DFCT10000 100pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP0040268R050DFCT10000 6.8pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>= 10G Ohm	NP00402151J050DFCT10000 150pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402471K025DFCT10000 470pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402103K025DFCT10000 10,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402331K050DFCT10000 330pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X7R0402682K050DFCT10000 6,800pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402224M016DFCT10000 220,000pF, +/-20%, T=0.50mm DF<=10%, IR>= 0.5G Ohm
<b>885 012 200 503</b> 25V	<b>885 012 005 047</b> 25V	<b>885 012 005 055</b> 50V	<b>885 012 005 063</b> 50V	<b>885 012 205 043</b> 25V	<b>885 012 205 051</b> 25V	<b>885 012 205 059</b> 50V	<b>885 012 205 067</b> 50V	<b>885 012 105 018</b> 25V
NP0040268R025DFCT10000 6.8pF, +/-0.5pF, T=0.50mm Q>=400+20C, IR>=10G Ohm	NP00402151J025DFCT10000 150pF, +/-5%, T=0.50mm Q>=1000, IR>=10G Ohm	NP00402100J050DFCT10000 10pF, +/-5%, T=0.50mm Q>=400+20C, IR>= 10G Ohm	NP00402221J050DFCT10000 220pF, +/-5%, T=0.50mm Q>=1000, IR>= 10G Ohm	X7R0402681K025DFCT10000 680pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402153K025DFCT10000 15,000pF, +/-10%, T=0.50mm DF<=3.5%, IR>= 10G Ohm	X7R0402471K050DFCT10000 470pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X7R0402103K050DFCT10000 10,000pF, +/-10%, T=0.50mm DF<=2.5%, IR>= 10G Ohm	X5R0402104M025DFCT10000 100,000pF, +/-20%, T=0.50mm DF<=10%, IR>= 5G Ohm

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	± 30ppm/°C; ± 0.54%/°C
X7R	± 15%
X5R	± 15%

\*within Operating Temperature Range

6.3V
10V
16V
25V
50V



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