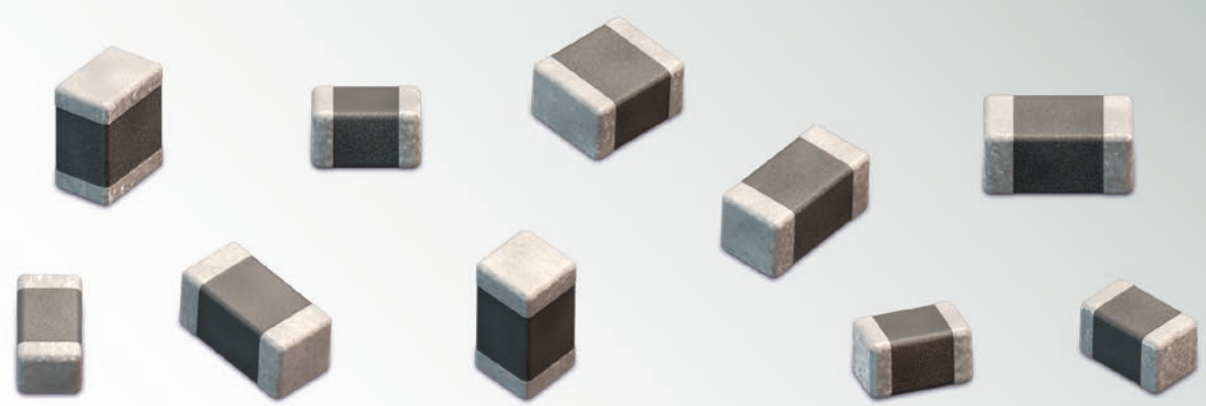




# DESIGN KIT

## WCAP-CSGP Multilayer Ceramic Chip Capacitors 0603



**SIZE:**  
0603

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

**Order Code 885 060**  
**Version 1.0**

# WCAP-CSGP Multilayer Ceramic Chip Capacitors 0603

NPO				X7R				X5R	
<b>885 012 006 015</b> 10V	<b>885 012 006 040</b> 25V	<b>885 012 006 048</b> 50V	<b>885 012 006 056</b> 50V	<b>885 012 206 027</b> 10V	<b>885 012 206 072</b> 25V	<b>885 012 206 080</b> 50V	<b>885 012 206 088</b> 50V	<b>885 012 106 006</b> 6.3V	
NP00603222J010DFCT10000 2,200pF, +/-5%, T=0.8mm Q>=1000, IR>=10G Ohm	NP00603221J025DFCT10000 220pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006033R3D050DFCT10000 3.3pF, +/- 0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603680J050DFCT10000 68pF, +/- 5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603225K010DFCT10000 2.2pF, +/- 10%, T=0.8mm DF<=10%, IR>=0.05G Ohm	X7R0603154K025DFCT10000 150,000pF, +/- 10%, T=0.8mm DF<=3.5%, IR>=3.3G Ohm	X7R0603331K050DFCT10000 330pF, +/- 10%, T=0.8mm DF<=2.5%, IR>=10G Ohm	X7R0603682K050DFCT10000 6,800pF, +/- 10%, T=0.8mm DF<=2.5%, IR>=10G Ohm	X5R0603106M6R3DFCT10000 10µF, +/- 20%, T=0.8mm DF<=15%, IR>=0.01G Ohm	
<b>885 012 006 016</b> 10V	<b>885 012 006 041</b> 25V	<b>885 012 006 049</b> 50V	<b>885 012 006 057</b> 50V	<b>885 012 206 065</b> 25V	<b>885 012 206 073</b> 25V	<b>885 012 206 081</b> 50V	<b>885 012 206 089</b> 50V	<b>885 012 106 007</b> 10V	
NP00603332J010DFCT10000 3,300pF, +/-5%, T=0.8mm Q>=1000, IR>=10G Ohm	NP00603331J025DFCT10000 330pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006034R7D050DFCT10000 4.7pF, +/-0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603101J050DFCT10000 100pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603103K025DFCT10000 10,000pF, +/-10%, T=0.8mm DF<=3.5%, IR>=2.3G Ohm	X7R0603224K025DFCT10000 220,000pF, +/-10%, T=0.8mm DF<=3.5%, IR>=2.3G Ohm	X7R0603471K050DFCT10000 470pF, +/-10%, T=0.8mm DF<=2.5%, IR>=10G Ohm	X7R0603103K050DFCT10000 10,000pF, +/-10%, T=0.8mm DF<=2.5%, IR>=10G Ohm	X5R0603334M010DFCT10000 330,000pF, +/-20%, T=0.8mm DF<=10%, IR>=1.5G Ohm	
<b>885 012 006 034</b> 25V	<b>885 012 006 042</b> 25V	<b>885 012 006 050</b> 50V	<b>885 012 006 058</b> 50V	<b>885 012 206 066</b> 25V	<b>885 012 206 074</b> 25V	<b>885 012 206 082</b> 50V	<b>885 012 206 090</b> 50V	<b>885 012 106 012</b> 10V	
NP00603220J025DFCT10000 22pF, +/-5%, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603471J025DFCT10000 470pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006036R8D050DFCT10000 6.8pF, +/-0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603151J050DFCT10000 150pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603153K025DFCT10000 15,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=10G Ohm	X7R0603334K025DFCT10000 330,000pF, +/-10%, T=0.80mm DF<=7%, IR>=1.5G Ohm	X7R0603681K050DFCT10000 680pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603153K050DFCT10000 15,000pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X5R0603475M010DFCT10000 4.7µF, +/-20%, T=0.80mm DF<=10%, IR>=0.02G Ohm	
<b>885 012 006 035</b> 25V	<b>885 012 006 043</b> 25V	<b>885 012 006 051</b> 50V	<b>885 012 006 059</b> 50V	<b>885 012 206 067</b> 25V	<b>885 012 206 075</b> 25V	<b>885 012 206 083</b> 50V	<b>885 012 206 091</b> 50V	<b>885 012 106 018</b> 16V	
NP0060330J025DFCT10000 33pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP00603681J025DFCT10000 680pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP0060310J050DFCT10000 10pF, +/-5%, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603221J050DFCT10000 220pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603223K025DFCT10000 22,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=10G Ohm	X7R0603474K025DFCT10000 470,000pF, +/-10%, T=0.80mm DF<=10%, IR>=1.1G Ohm	X7R0603102K050DFCT10000 1,000pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603223K050DFCT10000 22,000pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X5R0603225M016DFCT10000 2.2µF, +/-20%, T=0.80mm DF<=10%, IR>=0.05G Ohm	
<b>885 012 006 036</b> 25V	<b>885 012 006 044</b> 25V	<b>885 012 006 052</b> 50V	<b>885 012 006 060</b> 50V	<b>885 012 206 068</b> 25V	<b>885 012 206 076</b> 25V	<b>885 012 206 084</b> 50V	<b>885 012 206 092</b> 50V	<b>885 012 106 019</b> 25V	
NP00603470J025DFCT10000 47pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP00603102J025DFCT10000 1,000pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP00603150J050DFCT10000 15pF, +/-5%, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603331J050DFCT10000 330pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603333K025DFCT10000 33,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=10G Ohm	X7R0603105K025DFCT10000 1µF, +/-10%, T=0.80mm DF<=10%, IR>=0.5G Ohm	X7R0603152K050DFCT10000 1,500pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603333K050DFCT10000 33,000pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X5R0603224M025DFCT10000 220,000pF, +/-20%, T=0.80mm DF<=3.5%, IR>=2.3G Ohm	
<b>885 012 006 037</b> 25V	<b>885 012 006 045</b> 50V	<b>885 012 006 053</b> 50V	<b>885 012 006 061</b> 50V	<b>885 012 206 069</b> 25V	<b>885 012 206 077</b> 50V	<b>885 012 206 085</b> 50V	<b>885 012 206 093</b> 50V	<b>885 012 106 020</b> 25V	
NP00603680J025DFCT10000 68pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006031R0D050DFCT10000 1pF, +/-0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603220J050DFCT10000 22pF, +/-5%, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603471J050DFCT10000 470pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603473K025DFCT10000 47,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=10G Ohm	X7R0603101K050DFCT10000 100pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603222K050DFCT10000 2,200pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603473K050DFCT10000 47,000pF, +/-10%, T=0.80mm DF<=3%, IR>=10G Ohm	X5R0603474M025DFCT10000 470,000pF, +/-20%, T=0.80mm DF<=10%, IR>=1.1G Ohm	
<b>885 012 006 038</b> 25V	<b>885 012 006 046</b> 50V	<b>885 012 006 054</b> 50V	<b>885 012 006 062</b> 50V	<b>885 012 206 070</b> 25V	<b>885 012 206 078</b> 50V	<b>885 012 206 086</b> 50V	<b>885 012 206 094</b> 50V	<b>885 012 106 021</b> 25V	
NP00603101J025DFCT10000 100pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006031R5D050DFCT10000 1.5pF, +/-0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603330J050DFCT10000 33pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP00603681J050DFCT10000 680pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603683K025DFCT10000 68,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=7.4G Ohm	X7R0603151K050DFCT10000 150pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603332K050DFCT10000 3,300pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603683K050DFCT10000 68,000pF, +/-10%, T=0.80mm DF<=3%, IR>=7.4G Ohm	X5R0603684M025DFCT10000 680,000pF, +/-20%, T=0.80mm DF<=10%, IR>=0.7G Ohm	
<b>885 012 006 039</b> 25V	<b>885 012 006 047</b> 50V	<b>885 012 006 055</b> 50V	<b>885 012 006 063</b> 50V	<b>885 012 206 071</b> 25V	<b>885 012 206 079</b> 50V	<b>885 012 206 087</b> 50V	<b>885 012 206 095</b> 50V	<b>885 012 106 022</b> 25V	
NP00603151J025DFCT10000 150pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP006032R2D050DFCT10000 2.2pF, +/-0.5pF, T=0.80mm Q>=400+20C, IR>=10G Ohm	NP00603470J050DFCT10000 47pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	NP00603102J050DFCT10000 1,000pF, +/-5%, T=0.80mm Q>=1000, IR>=10G Ohm	X7R0603104K025DFCT10000 100,000pF, +/-10%, T=0.80mm DF<=3.5%, IR>=5G Ohm	X7R0603221K050DFCT10000 220pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603472K050DFCT10000 4,700pF, +/-10%, T=0.80mm DF<=2.5%, IR>=10G Ohm	X7R0603104K050DFCT10000 100,000pF, +/-10%, T=0.80mm DF<=3%, IR>=5G Ohm	X5R0603105M025DFCT10000 1µF, +/-20%, T=0.80mm DF<=10%, IR>=0.5G 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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