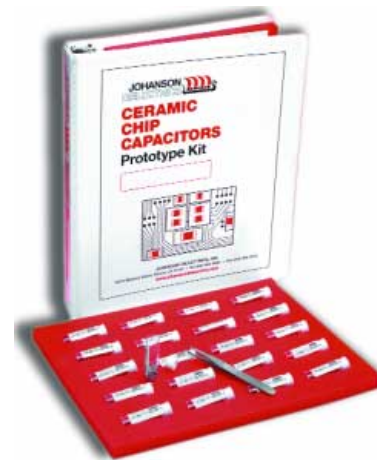


# CERAMIC CAPACITOR PROTO-TYPE DESIGN KITS

Johanson Dielectrics offers a variety of multi-layer chip capacitor kits for proto-type design work. Each kit contains a selection of popular values and tolerances in standard case sizes. The chips are individually packaged in marked plastic vials for easy access and assembled in a vinyl binder for convenient shelf storage. All chips are nickel-barrier terminated for SMT reflow solder process compatibility.



The selections listed below represents typical kit contents. Johanson reserves the right to make limited value/tolerance substitutions when necessary. Please advise any critical values at time of order.

## SIZE 0201 SMT MLCC DESIGN KIT (1000 PCS)

P/N: S-201

Part Number	Description	Qty	Part Number	Description	Qty	Part Number	Description	Qty
250R05N0R5BV4	NPO, 0.5pf, ±0.10pF	50	250R05N150JV4	NPO, 15pf, ±5%	50	160R05W151KV4	X7R, 150pf, ±10%	50
250R05N1R0CV4	NPO, 1.0pf, ±0.25pF	50	250R05N220JV4	NPO, 22pf, ±5%	50	160R05W221KV4	X7R, 220pf, ±10%	50
250R05N2R2CV4	NPO, 2.2pf, ±0.25pF	50	250R05N330JV4	NPO, 33pf, ±5%	50	160R05W471KV4	X7R, 470pf, ±10%	50
250R05N3R3CV4	NPO, 3.3pf, ±0.25pF	50	250R05N390JV4	NPO, 39pf, ±5%	50	100R05W102KV4	X7R, 1000pf, ±10%	50
250R05N4R7CV4	NPO, 4.7pf, ±0.25pF	50	160R05W470KV4	X7R, 47pf, ±10%	50	100R05W222KV4	X7R, 2200pf, ±10%	50
250R05N6R8CV4	NPO, 6.8pf, ±0.25pF	50	160R05W680KV4	X7R, 68pf, ±10%	50	100R05W472KV4	X7R, 4700pf, ±10%	50
250R05N100JV4	NPO, 10pf, ±5%	50	160R05W101KV4	X7R, 100pf, ±10%	50			

## SIZE 0402 SMT MLCC DESIGN KIT (1100 PCS)

P/N: S-402

Part Number	Description	Qty	Part Number	Description	Qty	Part Number	Description	Qty
500R07N1R0CV4	NPO, 1.0pf, ±0.25pF	50	500R07N330JV4	NPO, 22pf, ±5%	50	500R07W222KV4	X7R, 2200pf, ±10%	50
500R07N2R2CV4	NPO, 2.2pf, ±0.25pF	50	500R07N470JV4	NPO, 33pf, ±5%	50	500R07W332KV4	X7R, 3300pf, ±10%	50
500R07N3R3CV4	NPO, 3.3pf, ±0.25pF	50	500R07N680JV4	NPO, 47pf, ±5%	50	500R07W472KV4	X7R, 4700pf, ±10%	50
500R07N4R7CV4	NPO, 4.7pf, ±0.25pF	50	500R07N101JV4	NPO, 68pf, ±5%	50	160R07W103KV4	X7R, 0.010uf, ±10%	50
500R07N6R8CV4	NPO, 6.8pf, ±0.25pF	50	250R07N151JV4	NPO, 100pf, ±5%	50	160R07W223KV4	X7R, 0.022uf, ±10%	50
500R07N100JV4	NPO, 10pf, ±5%	50	250R07N221JV4	NPO, 150pf, ±5%	50	160R07Y104ZV4	Y5V, 0.100uf, ±20%	50
500R07N150JV4	NPO, 15pf, ±5%	50	500R07W471KV4	X7R, 470pf, ±10%	50			
500R07N220JV4	NPO, 22pf, ±5%	50	500R07W102KV4	X7R, 1000pf, ±10%	50			

## SIZE 0603 SMT MLCC DESIGN KIT (1200 PCS)

P/N: S-603

Part Number	Description	Qty	Part Number	Description	Qty	Part Number	Description	Qty
500R14N1R0CV4	NPO, 1.0pf, ±0.25pF	50	500R14N330JV4	NPO, 33pf, ±5%	50	500R14W222KV4	X7R, 2200pf, ±10%	50
500R14N2R2CV4	NPO, 2.2pf, ±0.25pF	50	500R14N470JV4	NPO, 47pf, ±5%	50	500R14W332KV4	X7R, 3300pf, ±10%	50
500R14N3R3CV4	NPO, 3.3pf, ±0.25pF	50	500R14N680JV4	NPO, 68pf, ±5%	50	500R14W472KV4	X7R, 4700pf, ±10%	50
500R14N4R7CV4	NPO, 4.7pf, ±0.25pF	50	500R14N101JV4	NPO, 100pf, ±5%	50	500R14W103KV4	X7R, 0.010uf, ±10%	50
500R14N6R8CV4	NPO, 6.8pf, ±0.25pF	50	500R14N151JV4	NPO, 150pf, ±5%	50	250R14W473KV4	X7R, 0.047uf, ±10%	50
500R14N100JV4	NPO, 10pf, ±5%	50	500R14N221JV4	NPO, 220pf, ±5%	50	160R14W104KV4	X7R, 0.100uf, ±10%	50
500R14N150JV4	NPO, 15pf, ±5%	50	500R14W471KV4	X7R, 470pf, ±10%	50	250R14Z473MV4	Z5U, 0.047uf, ±20%	50
500R14N220JV4	NPO, 22pf, ±5%	50	500R14W102KV4	X7R, 1000pf, ±10%	50	250R14Z104MV4	Y5V, 0.100uf, ±20%	50

## SIZE 0805 SMT MLCC DESIGN KIT (1400 PCS)

P/N: S-805

Part Number	Description	Qty	Part Number	Description	Qty	Part Number	Description	Qty
500R15N1R0CV4	NPO, 1.0pf, ±0.25pF	50	500R15N470JV4	NPO, 47pf, ±5%	50	500R15W102KV4	X7R, 1000pf, ±10%	50
500R15N2R2CV4	NPO, 2.2pf, ±0.25pF	50	500R15N680JV4	NPO, 68pf, ±5%	50	500R15W222KV4	X7R, 2200pf, ±10%	50
500R15N3R3CV4	NPO, 3.3pf, ±0.25pF	50	500R15N101JV4	NPO, 100pf, ±5%	50	500R15W332KV4	X7R, 3300pf, ±10%	50
500R15N4R7CV4	NPO, 4.7pf, ±0.25pF	50	500R15N151JV4	NPO, 150pf, ±5%	50	500R15W472KV4	X7R, 4700pf, ±10%	50
500R15N6R8CV4	NPO, 6.8pf, ±0.25pF	50	500R15N221JV4	NPO, 220pf, ±5%	50	500R15W103KV4	X7R, 0.010uf, ±10%	50
500R15N100JV4	NPO, 10pf, ±5%	50	500R15N331JV4	NPO, 330pf, ±5%	50	500R15W223KV4	X7R, 0.022uf, ±10%	50
500R15N120JV4	NPO, 12pf, ±5%	50	500R15N471JV4	NPO, 470pf, ±5%	50	500R15W473KV4	X7R, 0.047uf, ±10%	50
500R15N150JV4	NPO, 15pf, ±5%	50	500R15N102JV4	NPO, 1000pf, ±5%	50	500R15W104KV4	X7R, 0.100uf, ±10%	50
500R15N220JV4	NPO, 22pf, ±5%	50				250R15Z473MV4	Z5U, 0.047uf, ±20%	50
500R15N330JV4	NPO, 33pf, ±5%	50				250R15Z104MV4	Z5U, 0.100uf, ±20%	50

Check our web site for new design kit updates.



# APPLICATION SPECIFIC DESIGN ENGINEERING KITS

## X2Y® EMI FILTER CAPACITOR KITS

GENERAL X2Y® KIT P/N: S-X2Y-1		
Part Number	Description	Qty
500X14W102MV4	0603, 1000pf, ±20%	50
500X14W103MV4	0603, 0.010uf, ±20%	50
500X14W152MV4	0603, 1500pf, ±20%	50
500X15W103MV4	0805, 0.010uf, ±20%	50
250X15W473MV4	0805, 0.047uf, ±20%	50
500X18W104MV4	1206, 0.10uf, ±20%	50
500X41W104MV4	1210, 0.10uf, ±20%	50
500X41W334MV4	1210, 0.33uf, ±20%	50

X2Y® EMI FILTER CAPACITORS FOR AUTOMOTIVE MOTOR APPLICATIONS KIT P/N: S-X2Y-2		
Part Number	Description	Qty
500X18W104MV4	1206, 0.10uf, ±20%	25
500X41W224MV4	1210, 0.22uf, ±20%	25
500X44W404MV4	1410, 0.40uf, ±20%	25
500X43W474MV4	1812, 0.47uf, ±20%	25
TOTAL		100

X2Y® EMI FILTER CAPACITORS FOR HIGH SPEED DATA APPLICATIONS KIT P/N: S-X2Y-3		
Part Number	Description	Qty
500X14N270MV4	0603, 27pf, ±20%	50
500X14N470MV4	0603, 47pf, ±20%	50
500X14N101MV4	0603, 100pf, ±20%	50
500X14N271MV4	0603, 270pf, ±20%	50
TOTAL		100

## HIGH VOLTAGE MULTI-LAYER CERAMIC CAPACITOR KITS

3,000 VDC / 250 VAC X2Y3 SAFETY CERTIFIED MLCCs FOR MODEM & NETWORK ISOLATION KIT P/N: S-MOD		
Part Number	Description	Qty
302R29N101KV4	NPO, 100pf, ±10%	50
302R29N151KV4	NPO, 150pf, ±10%	50
302R29N221KV4	NPO, 220pf, ±10%	50
302R29N331KV4	NPO, 330pf, ±10%	50
302R29W151MV4	X7R, 150pf, ±20%	50
302R29W221MV4	X7R, 220pf, ±20%	50
302R29W471MV4	X7R, 470pf, ±20%	50
302R29W102MV4	X7R, 1000pf, ±20%	50
302R29W152MV4	X7R, 1500pf, ±20%	50
302S43W471MV4	X7R, 470pf, ±20%	50
302S43W102MV4	X7R, 1000pf, ±20%	50
302S43W222MV4	X7R, 2200pf, ±20%	50
TOTAL		600

3,000 VDC CAPACITORS FOR LCD BACKLIGHT INVERTER MODULES KIT P/N: S-INV		
Part Number	Description	Qty
302R29N100JV4	NPO, 10pf, ±5%	50
302R29N120JV4	NPO, 12pf, ±5%	50
302R29N150JV4	NPO, 15pf, ±5%	50
302R29N180JV4	NPO, 18pf, ±5%	50
302R29N220JV4	NPO, 22pf, ±5%	50
302R29N270JV4	NPO, 27pf, ±5%	50
302R29N330JV4	NPO, 33pf, ±5%	50
302R29N390JV4	NPO, 39pf, ±5%	50
302R29N470JV4	NPO, 47pf, ±5%	50
302R29N560JV4	NPO, 56pf, ±5%	50
302R29N680JV4	NPO, 68pf, ±5%	50
302R29N820JV4	NPO, 82pf, ±5%	50
302R29N101JV4	NPO, 100pf, ±5%	50
302R29N151JV4	NPO, 150pf, ±5%	50
302R29N221JV4	NPO, 220pf, ±5%	50
TOTAL		750

1,000 VDC & 2,000 VDC HIGH VOLTAGE CAPACITOR KIT KIT P/N: S-HIV		
Part Number	Description	Qty
102R18N220KV4	NPO, 22pf, ±10%	50
102R18N470KV4	NPO, 47pf, ±10%	50
102R18N101KV4	NPO, 100pf, ±10%	50
102R18W102KV4	X7R, 1000pf, ±10%	50
102R18W472KV4	X7R, 4700pf, ±10%	50
202R29N220KV4	NPO, 22pf, ±10%	50
202R29N101KV4	NPO, 100pf, ±10%	50
202R29N221KV4	NPO, 220pf, ±10%	50
202R29W151KV4	X7R, 150pf, ±10%	50
202R29W471KV4	X7R, 470pf, ±10%	50
202R29W102KV4	X7R, 1000pf, ±10%	50
202R29W152KV4	X7R, 1500pf, ±10%	50
202S43N101KV4	X7R, 100pf, ±10%	50
202S43W102KV4	X7R, 1000pf, ±10%	50
202S43W222KV4	X7R, 2200pf, ±10%	50
TOTAL		750

## TANCERAM® EXTENDED RANGE MLCC KITS

SIZE 0402-0805 TANCERAM® KIT P/N: S-TAN-1				
Part Number	Size	Description	Volts	Qty
100R07X104KV4	0402	0.10uf, ±10%, X5R	10	25
6R3R07X224KV4	0402	0.22uf, ±10%, X5R	6.3	25
6R3R07Y474ZV4	0402	0.47uf, +80-20%, Y5V	6.3	25
6R3R07Y105ZV4	0402	1.00uf, +80-20%, Y5V	6.3	25
100R14X474KV4	0603	0.47uf, ±10%, X5R	10	25
100R14X105KV4	0603	1.00uf, ±10%, X5R	10	25
160R14Y474ZV4	0603	0.47uf, +80-20%, Y5V	16	25
100R14Y105ZV4	0603	1.00uf, +80-20%, Y5V	10	25
6R3R14Y225ZV4	0603	2.2uf, +80-20%, Y5V	6.3	25
500R15X224KV4	0805	0.22uf, ±10%, X5R	50	25
250R15W474KV4	0805	0.47uf, ±10%, X7R	25	25
100R15W105KV4	0805	1.00uf, ±10%, X7R	10	25
160R15X105KV4	0805	1.00uf, ±10%, X5R	16	25
100R15X225MV4	0805	2.20uf, ±20%, X5R	10	25
6R3R15X475MV4	0805	4.70uf, ±20%, X5R	6.3	25
6R3R15X106MV4	0805	10.0uf, ±20%, X5R	6.3	25
500R15Y105ZV4	0805	1.00uf, +80-20%, Y5V	50	25
160R15Y225ZV4	0805	2.20uf, +80-20%, Y5V	16	25
100R15Y475ZV4	0805	4.70uf, +80-20%, Y5V	10	25
6R3R15Y106ZV4	0805	10.0uf, +80-20%, Y5V	6.3	25
TOTAL				500

SIZE 1206-1812 TANCERAM® KIT P/N: S-TAN-2				
Part Number	Size	Description	Volts	Qty
160R18W105KV4	1206	1.0uf, ±10%, X7R	16	10
160R18W225MV4	1206	2.2uf, ±20%, X7R	16	10
100R18W475MV4	1206	4.7uf, ±20%, X7R	10	10
6R3R18X106MV4	1206	10.0uf, ±20%, X5R	6.3	10
6R3R18X226MV4	1206	22.0uf, ±20%, X7R	6.3	10
250R18Y475ZV4	1206	4.7uf, +80 -20%, Y5V	25	10
100R18Y106ZV4	1206	10.0uf, +80 -20%, Y5V	10	10
100R18Y226ZV4	1206	22.0uf, +80 -20%, Y5V	10	10
500S41W105KV4	1210	1.0uf, ±10%, X7R	50	10
250S41W225MV4	1210	2.2uf, ±20%, X7R	25	10
250S41X106MV4	1210	10.0uf, ±20%, X5R	25	10
100S41W106MV4	1210	10.0uf, ±20%, X7R	10	10
6R3S41X226MV4	1210	22.0uf, ±20%, X5R	6.3	10
100S41Y226ZV4	1210	22.0uf, +80 -20%, Y5V	10	10
6R3S41Y476ZV4	1210	47.0uf, +80 -20%, Y5V	6.3	10
6R3S41Y107ZV4	1210	100.0uf, +80 -20%, Y5V	6.3	10
250S43X106MV4	1812	10.0uf, ±20%, X5R	25	10
160S43X226MV4	1812	22.0uf, ±20%, X5R	16	10
6R3S43X476MV4	1812	47.0uf, ±20%, X5R	6.3	10
6R3S43Y107MV4	1812	100.0uf, +80 -20%, Y5V	6.3	10
TOTAL				200

Check our web site for new design kit updates.

