NOVACAP
A DOVER COMPANY

MULTILAYER CERAMIC CAPACITORS CROSS REFERENCE GUIDE

Chip Size - Quick Reference Chart

NOVACAP	0402	0603	0805	1206	1210	1808	1812	1825	2225
ATC	ATC0402	ATC0603	ATC0805	ATC1206	ATC1210		ATC1812		ATC2225
AVX	0402	0603	0805	1206	1210	1808	1812	1825	2225
CAL CHIP	GMC-04	GMC-10	GMC-21	GMC-31	GMC-31		GMC-43		GMC-57
JOHANSON	R07	R14	R15	R18	S41	R29	S43	S49	S48
KEMET	C0402	C0603	C0805	C1206	C1210		C1812	C1825	C2225
MURATA(NEW)	GRM15	GRM18	GRM21	GRM31	GRM32	GRM42	GRM43		
NIC	NMC0402	NMC0603	NMC0805	NMC1206	NMC1210		NMC1812		NMC2225
PANASONIC	0	1	2	3	4				
PRESIDIO	0402	0603	0805	1206	1210	1808	1812	1825	2225
ROHM	MCH15	MCH18	MCH21	MCH31	MCH32		MCH43		
SAMSUNG		CL10	CL21	CL31	CL32				
SYFER	0402	0603	0805	1206	1210	1808	1812	1825	2225
TDK	C1005	C1608	C2012	C3216	C3225		C4532		
TAIYO YUDEN	UMK105	UMK107	UMK212	UMK316	UMK325		UMK432		
VENKEL	C0402	C0603	C0805	C1206	C1210		C1812	C1825	C2225
VISHAY/VITRAMON	VJ0402	VJ0603	VJ0805		VJ1210	VJ1808	VJ1812		VJ2225

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING

SIZE
0402
0504
0603
0805
1206
1210
1808
1812
1825
2221
2225
4540
6560
7565

DIELECTRIC
N = NP0
B = X7R
X = BX
Z = Z5U
Y = Y5V
S = X8R

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

VOLTAGE
160 = 16V
250 = 25V
500 = 50V
101 = 100V
251 = 250V
501 = 500V
102 = 1000V
202 = 2000V
302 = 3000V
402 = 4000V
502 = 5000V
103 = 10000V

TERMINATION
N=Nickel Barrier (100%Sn)
P=Palladium Silver
Y=Nickel Barrier (90%Sn/10%Pb)

THICKNESS
X in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.

PACKAGING
T = Tape & Reel
None = Bulk
W = Waffle Pack

MARKING
M = Marking
None = Unmarked
Marking not available on sizes 0603 & below

ATC: ATC1206X7R104KL2AT

ATC	1206	X7R	104	K	L	2	A	T
	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	VOLTAGE	MARKING	PACKAGING

ATC Style

SIZE
0402
0603
0805
1206
1210
1808
1812
1825
2220
2225

DIELECTRIC
NP0
X7R
Z5U
Y5V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

TERMINATION
L=Nickel Barrier

VOLTAGE
2 = 50V
3 = 100V
1 = 25V
5 = 500V
6 = 1000V

MARKING
S = Marking
A= Unmarked

PACKAGING
T = 7" Reel
R =13" Reel
B = Bulk

AVX: 12065C104KAT2A

1206	5	C	104	K	A	T	2	A
SIZE	VOLTAGE	DIELECTRIC	CAPACITANCE	TOLERANCE		TERMINATION	PACKAGING	

SIZE
0402
0603
0805
1206
1210
1808
1812
1825
2220
2225

VOLTAGE
Z = 10V
Y = 16V
3 = 25V
5 = 50V
1 = 100V
2 = 200V
V = 250V
7 = 500V
C = 600V
A = 1000V
S = 1500V
G = 2000V
H = 3000V
J = 4000V
K = 5000V
P = 250V
Telco Rating

DIELECTRIC
A =NP0
C =X7R
D = X5R
E =Z5U
G =Y5V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

FAILURE RATE
A=N/A

TERMINATION
T=Nickel/Tin Plate
7=Nickel/Gold Plate
1=Palladium Silver

PACKAGING
2 = 7" Reel
4 = 13" Reel
7 = Bulk Cassette
9 = Bulk

SPECIAL CODE
A=Standard

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING
0402 0504 0603 0805 1206 1210 1808 1812 1825 2221 2225 4540 6560 7565	N = NP0 B = X7R X = BX Z = Z5U Y = Y5V S = X8R	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V 402 = 4000V 502 = 5000V 103 = 10000V	N=Nickel Barrier (100%Sn) P=Palladium Silver Y=Nickel Barrier (90%Sn/10%Pb)	**THICKNESS** **X** in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.	T = Tape & Reel None = Bulk W = Waffle Pack	M = Marking None = Unmarked Marking not available on sizes 0603 & below

CAL CHIP: GMC31X7R104K50NT

GMC	31	X7R	104	K	50	N	T	
	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	PACKAGING	MARKING
ATC Style	04 = 0402 10 = 0603 21 = 0805 31 = 1206 32 = 1210 43 = 1812 45 = 1825 55 = 2220 57 = 2225	CG (NP0) X7R Z5U Y5V	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	16 = 16V 25 = 25V 50 = 50V 100 = 100V 200 = 200V	N=Nickel Barrier	T = Paper Tape E = Plastic B = Bulk	M = Marking None = Unmarked

JOHANSON: 500R18W104KV4T

500	R18	W	104	K	V	4	T
VOLTAGE	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKAGING
100 = 10V 160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V	R07 = 0402 R09 = 0403 R11 = 0504 R14 = 0603 R15 = 0805 R18 = 1206 S41 = 1210 R29 = 1808 S43 = 1812 S49 = 1825 S48 = 2225	N=NP0 W=X7R B=BX X=X5R Z=Z5U Y=Y5V	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20%	V=Nickel Barrier P=Palladium Silver	4 = Unmarked 6 = EIA "J" Code* not available on 0402& 0603 sizes	E = 7" Embossed T = 7" Paper U = 13" Embossed R = 13" Paper W = Waffle Pack None = Bulk Pack

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING

SIZE
0402
0504
0603
0805
1206
1210
1808
1812
1825
2221
2225
4540
6560
7565

DIELECTRIC
N = NP0
B = X7R
X = BX
Z = Z5U
Y = Y5V
S = X8R

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

VOLTAGE
160 = 16V
250 = 25V
500 = 50V
101 = 100V
251 = 250V
501 = 500V
102 = 1000V
202 = 2000V
302 = 3000V
402 = 4000V
502 = 5000V
103 = 10000V

TERMINATION
N=Nickel Barrier (100%Sn)
P=Palladium Silver
Y=Nickel Barrier (90%Sn/10%Pb)

THICKNESS
X in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.

PACKAGING
T = Tape & Reel
None = Bulk
W = Waffle Pack

MARKING
M = Marking
None = Unmarked
Marking not available on sizes 0603 & below

KEMET : C1206C104K5RAC

C	1206	C	104	K	5	R	A	C
	SIZE		CAPACITANCE	TOLERANCE	VOLTAGE	DIELECTRIC		TERMINATION

KEMET Style

SIZE
0402
0603
0805
1206
1210
1808
1812
1825
2220
2225

SPEC.
C = Standard

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

VOLTAGE
8 = 10V
4 = 16V
3 = 25V
5 = 50V
1 = 100V
2 = 200V

DIELECTRIC
G = NP0
R = X7R
U = Z5U
V = Y5V
X = BX
V = Y5V

FAILURE RATE
A = Standard

TERMINATION
C = Ni w/ Tin plate
H = Ni w/ solder
T = Silver
G = Gold Plated

MURATA (NEW GLOBAL) : GRM31R71H104KA01L

GR	M	31	---	R7	1H	104	K	A01	L
	TERMINATION	SIZE		DIELECTRIC	VOLTAGE	CAPACITANCE	TOLERANCE		PACKAGING

MURATA Style

TERMINATION
M = Nickel Barrier
P = Palladium Silver

SIZE
15 = 0402
18 = 0603
21 = 0805
31 = 1206
32 = 1210
42 = 1808
43 = 1812
55 = 2220

THICKNESS
If specified. None, Otherwise

DIELECTRIC
5C = NP0
R7 = X7R
E4 = Z5U
F5 = Y5V

VOLTAGE
1C =16V
1E = 25V
1H = 50V
2A = 100V
2E = 250V
2H = 500V
3A = 1000V
3D = 2000V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%

MURATA SPECIFICATION Standard = A01

PACKAGING
D= 7" Paper
L= 7" Plastic
K= 13" Plastic
J= 13" Paper
C= Bulk Case
B= Bulk
T= Bulk Tray

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING
0402 0504 0603 0805 1206 1210 1808 1812 1825 2221 2225 4540 6560 7565	N = NP0 B = X7R X = BX Z = Z5U Y = Y5V S = X8R	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V 402 = 4000V 502 = 5000V 103 = 10000V	N=Nickel Barrier (100%Sn) P=Palladium Silver Y=Nickel Barrier (90%Sn/10%Pb) **THICKNESS** **X** in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.		T = Tape & Reel None = Bulk W = Waffle Pack	M = Marking None = Unmarked Marking not available on sizes 0603 & below

NIC : NMC1206X7R104K50TRPLP

NMC	1206	X7R	104	K	50	TRPLP	
	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	PACKAGING	MARKING
NIC Style	0402 0603 0805 1206 1210 1812 2225	NP0 X7R Z5U Y5V	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	10 = 10V 16 = 16V 25 = 25V 50 = 50V 100 = 100V 200 = 200V 500 = 500V	TRP = T/R (Paper Carrier) TRPLP = T/R (Plastic Carrier)	M = Marked None = Unmarked

PANASONIC : ECJ3YB1H104K

ECJ	3	Y	B	1H	104	K
	SIZE	PACKAGING	DIELECTRIC	VOLTAGE	CAPACITANCE	TOLERANCE
PANASONIC STYLE	Q = 0402 1 = 0603 2 = 0805 3 = 1206 4 = 1210	E= 7" Paper 2mm V= 7" Paper 4mm F,Y= 7" Plastic 4mm W=13" Reels 2mm Z= 13" Reels 4mm C= Bulk Case X= Bulk	C = NPO B = X7R F = Y5V	1A = 10V 1C = 16V 1E = 25V 1H = 50V 2A = 100V 2D = 200V	1st two digits are significant, third digit denotes number of zeros 010 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	C = ±0.25pF D = ±0.50pF F= ±1% J = ±5% K = ±10% M = ±20% Z = +80/-20%

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING

SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	PACKAGING	MARKING
0402 0504 0603 0805 1206 1210 1808 1812 1825 2221 2225 4540 6560 7565	N = NP0 B = X7R X = BX Z = Z5U Y = Y5V S = X8R	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V 402 = 4000V 502 = 5000V 103 = 10000V	N=Nickel Barrier (100%Sn) P=Palladium Silver Y=Nickel Barrier (90%Sn/10%Pb) **THICKNESS** **X** in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.	T = Tape & Reel None = Bulk W = Waffle Pack	M = Marking None = Unmarked Marking not available on sizes 0603 & below

PRESIDIO : 1206X7R104K2NT91

1206	X7R	104	K	2	NT9	1
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	PACKAGING

SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	PACKAGING
0402 0603 0805 1206 1210 1808 1812 1825 2220 2225	NP0 X7R Z5U Y5V	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20%	1 = 25V 2 = 50V 3 = 100V 4 = 200V 5 = 300V 6 = 500V 9 = 1000V 11 = 2000V 13 = 3000V 15 = 5000V	NT9 = Nickel Barrier P = Palladium Silver	1 = 7” Plastic/Unmarked 2 = 7” Plastic/Marked 3 = Bulk Unmarked 4 = Bulk Marked 5 = Waffle Unmarked 6 = Waffle Marked

ROHM : MCH315C104KP

MCH	31	5	C	104	K	P
TERMINATION	SIZE	VOLTAGE	DIELECTRIC	CAPACITANCE	TOLERANCE	PACKAGING

TERMINATION	SIZE	VOLTAGE	DIELECTRIC	CAPACITANCE	TOLERANCE	PACKAGING
MCH = Nickel Barrier MC = Palladium Silver	15 = 0402 18 = 0603 21 = 0805 31 = 1206 32 = 1210 43 = 1812	3 = 16V 2 = 25V 5 = 50V 1 = 100V 6 = 200V 7 = 500V	A = NP0 C = X7R E = Z5U F = Y5V	1st two digits are significant, third digit denotes number of zeros 010 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20%	P = 7” Plastic Q = 13” Plastic K = 7” Paper L = 13” Paper C = Bulk Case B = Bulk Bags None = Bulk

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING

SIZE
0402
0504
0603
0805
1206
1210
1808
1812
1825
2221
2225
4540
6560
7565

DIELECTRIC
N = NP0
B = X7R
X = BX
Z = Z5U
Y = Y5V
S = X8R

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

VOLTAGE
160 = 16V
250 = 25V
500 = 50V
101 = 100V
251 = 250V
501 = 500V
102 = 1000V
202 = 2000V
302 = 3000V
402 = 4000V
502 = 5000V
103 = 10000V

TERMINATION
N=Nickel Barrier (100%Sn)
P=Palladium Silver
Y=Nickel Barrier (90%Sn/10%Pb)

THICKNESS
X in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.

PACKAGING
T = Tape & Reel
None = Bulk
W = Waffle Pack

MARKING
M = Marking
None = Unmarked
Marking not available on sizes 0603 & below

SAMSUNG : CL31B104KBNE

CL	31	B	104	K	B	N	E
	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	PACKAGING

SAMSUNG Style

SIZE
05 = 0402
01 = 0603
21 = 0805
31 = 1206
32 = 1210

DIELECTRIC
C = NP0
B = X7R
F = Z5U
E = Y5V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%

VOLTAGE
O = 16V
A = 25V
B = 50V
C = 100V

TERMINATION
N = Nickel Barrier
P = Palladium Silver
S = Silver

PACKAGING
E = 7" Plastic
C = 7" Paper
B = Bulk Pack
P = Cassette

SYFER : 1206J0500104KXT

1206	J	050	0104	K	X	T
SIZE	TERMINATION	VOLTAGE	CAPACITANCE	TOLERANCE	DIELECTRIC	PACKAGING

SIZE
0402
0603
0805
1206
1210
1808
1812
2220
2225

TERMINATION
J = Nickel Barrier
F = Palladium Silver
A = Special Term.

VOLTAGE
016 = 16V
025 = 25V
050 = 50V
063 = 63V
100 = 100V
200 = 200V
250 = 250V
500 = 500V
630 = 630V
1K0 = 1000V
to
5k0 = 5000V

CAPACITANCE
1st digit = 0, 2nd &3rd are significant, 4th denotes number of zeros, P=decimal
01P0 = 1.0 pF
0120 = 12 pF
0471 = 470 pF
0102 = 1,000 pF
0273 = .027 µF
0474 = 0.47 µF
0105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%

DIELECTRIC
C = NP0
X = X7R
B = BX
Y = Y5V
Q = HiFreQ

PACKAGING
T = 7" Reel
R = 13" Reel
B = Bulk Pack
C = Cassette

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING

SIZE
0402
0504
0603
0805
1206
1210
1808
1812
1825
2221
2225
4540
6560
7565

DIELECTRIC
N = NP0
B = X7R
X = BX
Z = Z5U
Y = Y5V
S = X8R

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%
P= +100%/-0%

VOLTAGE
160 = 16V
250 = 25V
500 = 50V
101 = 100V
251 = 250V
501 = 500V
102 = 1000V
202 = 2000V
302 = 3000V
402 = 4000V
502 = 5000V
103 = 10000V

TERMINATION
N=Nickel Barrier (100%Sn)
P=Palladium Silver
Y=Nickel Barrier (90%Sn/10%Pb)

THICKNESS
X in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.

PACKAGING
T = Tape & Reel
None = Bulk
W = Waffle Pack

MARKING
M = Marking
None = Unmarked
Marking not available on sizes 0603 & below

TDK : C3216X7R1H104KT

1206	X7R	1H	104	K	T
SIZE	DIELECTRIC	VOLTAGE	CAPACITANCE	TOLERANCE	PACKAGING

SIZE
C1005 = 0402
C0603 = 0603
C2012 = 0805
C3216 = 1206
C3225 = 1210
C4532 = 1812
C5650 = 2220

DIELECTRIC
CG
X7R
X5R
Z5U
Y5V

VOLTAGE
OJ = 6.3V
1A = 10V
1C = 16V
1E = 25V
1H= 50V
2A = 100V
2E = 250V
2J = 630V
3D = 2000V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros, R=decimal
1R0 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%

PACKAGING
T = Tape & Reel
B = Bulk Pack

TAIYO YUDEN : UMK316BJ104KQT

U	M	K	316	BJ	104	K	Q	T
VOLTAGE		TERMINATION	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE		PACKAGING

VOLTAGE
J = 6.3V
L = 10V
E = 16V
T = 25V
U = 50V

SERIES
Ceramic Caps

TERMINATION
K= Nickel Barrier

SIZE
105 =0402
107 =0603
212 =0805
316 =1206
325 =1210
432 =1812
550 =2220

DIELECTRIC
CG = NP0
CH = NP0
CJ = NP0
CK = NP0
BJ = X7R
_F = Y5V

CAPACITANCE
1st two digits are significant, third digit denotes number of zeros.
010 = 1.0 pF
120 = 12 pF
471 = 470 pF
102 = 1,000 pF
273 = .027 µF
474 = 0.47 µF
105 = 1.0 µF

TOLERANCE
B = ±0.10pF
C = ±0.25pF
D = ±0.50pF
F= ±1%
G = ±2%
J = ±5%
K = ±10%
M = ±20%
Z = +80/-20%

THICKNESS
Dependent on dielectric and electrode system. Consult factory for further details.

PACKAGING
T = Tape & Reel
B = Bulk Pack

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NOVACAP: 1206B104K500NT

1206	B	104	K	500	N		T	
SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION		PACKAGING	MARKING
0402 0504 0603 0805 1206 1210 1808 1812 1825 2221 2225 4540 6560 7565	N = NP0 B = X7R X = BX Z = Z5U Y = Y5V S = X8R	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20% P= +100%/-0%	160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V 402 = 4000V 502 = 5000V 103 = 10000V	N=Nickel Barrier (100%Sn) P=Palladium Silver Y=Nickel Barrier (90%Sn/10%Pb) **THICKNESS** **X** in Part number denotes special thickness other than EIA standard. If no **X** in part number then thickness is standard per Novacap catalog specifications.		T = Tape & Reel None = Bulk W = Waffle Pack	M = Marking None = Unmarked Marking not available on sizes 0603 & below

VENKEL : C1206X7R500104KNP

C	1206	X7R	500	104	K	N		P
	SIZE	DIELECTRIC	VOLTAGE	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKAGING
VENKEL Style	0402 0603 0805 1206 1210 1808 1812 1825 2225	NP0 X7R X5R Z5U Y5V	100 = 10V 160 = 16V 250 = 25V 500 = 50V 101 = 100V 251 = 250V 501 = 500V 102 = 1000V 202 = 2000V 302 = 3000V	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20%	N = Nickel Barrier P = Palladium Silver G = Gold/Nickel	6 = Marked 2 = Color Code None= Unmarked	P = Paper E = Embossed B = Bulk

VISHAY/VITRAMON : VJ1206Y104KXAAT

VJ	1206	Y	104	K	X	A	A	T
	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	VOLTAGE	MARKING	PACKAGING
VISHAY Style	0402 0603 0805 1206 1210 1812 1825 2225	A,N = NP0 Y = X7R U = Z5U X = BX H = X8R	1st two digits are significant, third digit denotes number of zeros, R=decimal 1R0 = 1.0 pF 120 = 12 pF 471 = 470 pF 102 = 1,000 pF 273 = .027 µF 474 = 0.47 µF 105 = 1.0 µF	B = ±0.10pF C = ±0.25pF D = ±0.50pF F= ±1% G = ±2% J = ±5% K = ±10% M = ±20% Z = +80/-20%	X = Nickel Barrier F = Palladium Silver	X = 25V A = 50V B = 100V C = 200V E = 500V G = 1000V	M = Marked A = Unmarked	T = 7" Plastic R = 13" Plastic C = 7" Paper P = 13" Paper B = Bulk Pack