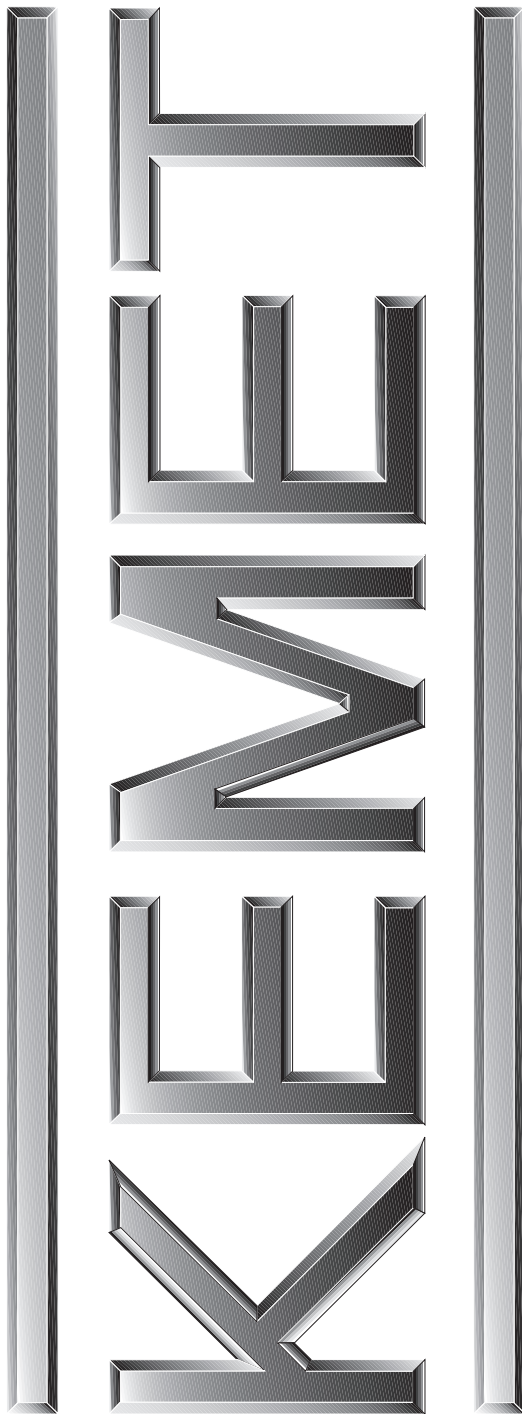




Manufacturer's Cross Reference and Multilayer Ceramic Chip Capacitor Part Numbering Systems

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Case/Style Cross Reference Chart

KEMET	C0402	C0603	C0805	C1005	C1206	C1210	C1805	C1808	C1812	C1825	C2220	C2225	Array 1632
ATC	—	ATC0603	ATC0805	—	ATC1206	ATC1210	—	—	ATC1812	—	—	ATC2225	—
AVX	0402	0603	0805	1005	1206	1210	1805	1808	1812	1825	—	2225	W3A4
Cal-Chip	—	GMC-10	GMC-21	—	GMC-31 GMC-32	—	—	—	GMC-43	—	GMC-56	GMC-57	—
Centralab	—	—	0805	—	1206	1210	—	1808	1812	—	—	—	—
Johanson	R07	R14	R15	—	R18	S41	—	R29	S43	—	—	—	—
Koa	0402	0603	0805	—	1206	1210	—	—	1812	1825	—	—	—
Kyocera	05	105	21	—	316	32	—	42	43	—	55	—	—
Marcon	—	—	THCS20	—	THCS30	THCS40	—	—	THCS50	—	THCS60	—	—
Mitsubishi	—	—	C20	—	C30	C40	—	—	—	—	—	—	—
Murata	GRM36	GRM39	GRM40	—	GRM42-6	GRM42-2	—	—	GRM43-2	—	GRM44-1	GRM44	GNM30-401
NIC	—	NMC0603	NMC0805	—	NMC1206	NMC1210	—	—	NMC1812	—	NMC2220	—	—
Novacap	0402	0603	0805	1005	1206	1210	—	1808	1812	1825	—	2225	—
Panasonic ECJ	Q,0*	V,I*	N,G,X,2*	—	W,M,H,3*	6	3	4	7	—	—	—	—
Philips	—	0603	0805	—	1206	1210	—	—	1812	—	2220	—	0612
Presidio	—	—	0805	1005	—	—	—	1808	1812	—	—	2225	—
Rohm	MCH15	MCH18	MCH21	—	MCH31	MCH32	—	—	MCH43	—	MCH53	—	MCH14
S+M (EPCOS)	B379XX	B379XX	B379XX	—	B379XX	B379XX	—	—	—	—	—	—	—
Samsung	—	CL10	CL21	—	CL31	CL32	—	—	—	—	—	—	—
San Fernando	—	—	SG0805	SG1005	SG1206	SG1210	SG1805	SG1808	SG1812	SG1825	—	SG2225	—
Sprague	—	—	0805	1005	1206	1210	—	1808	1812	1825	—	—	—
Syfer	—	—	0805	—	1206	1210	—	—	1812	—	2220	—	—
TDK	C1005	C1608	C2012	—	C3216	C3225	—	—	C4532	—	C5650	—	CKCA43
Taiyo Yuden	UMK105	UMK107	UMK212	—	UMK316	UMK325	—	—	UMK432	—	UMK550	—	—
UCC	—	—	20	—	30	40	—	—	50	—	60	—	—
Vitramon	VJ0402	VJ0603	VJ0805	VJ0905	—	VJ1210	VJ1805	VJ1808	VJ1812	—	—	VJ2224	VA6000

KEMET Electronics Corporation does not assume any legal responsibility for correctness of the information contained herein.
This reference is an aid only to convert competitors part numbers into KEMET part numbers for commercial ceramic chips.
Note that not all ratings have exact matches (i.e. end terminations.)

KEMET

① C	② 0805	③ C	④ 103	⑤ K	⑥ 5	⑦ R	⑧ A	⑨ C
Style	Chip Size	Specifi- cation	Coded Capaci- tance Value	Capacitance Tolerance	Voltage	Temperature Characteristic	Failure Rate	Termi- nation
① <u>Style</u> C-Ceramic	② <u>Chip Size</u> 0402 0603 0805 1005 1206 1210 1805 1808 1812 1825 2220 2225 1632 Arrays	③ <u>Specification</u> C – Standard A – GR900 P – Mil-C-55681 CDR01-CDR06 N – Mil-C-55681 CDR31-CDR35 Z – Mil-C-123 E – Mil Equivalent (Group A only)	④ <u>Capacitance Code, pF</u> First two digits represent significant figures. Third digit specifies number of zeros. 100 pF = 101 (use “9” for 1.0 through 9.9 pF) (use “8” for 0.1 through .99 pF)	⑤ <u>Capacitance Tolerance</u> B = ± 0.1 pF C = ± 0.25 pF D = ± 0.5 pF F = ± 1% G = ± 2% J = ± 5% K = ± 10% M = ± 20% P = (GMV + 100 –0%) Z = + 80% –20%				
⑥ <u>Voltage</u> 2 = 200V 1 = 100V 5 = 50V 3 = 25V 4 = 16V 8 = 10V 9 = 6.3V	⑦ <u>Temperature Characteristic</u> G = C0G(NP0) R = X7R U = Z5U X = BX (Mil) V = Y5V	⑧ <u>Failure Rate (%/1000 HRS.)</u> A - Standard M - 1.0 (Military) P - 0.1 (Military) R - 0.01 (Military) S - 0.0001 (Military)	⑨ <u>Termination</u> C = Nickel Barrier with Tin Plate H = Nickel Barrier with Solder Coat T = Silver G = Gold Plated					

ATC

ATC Part Number				KEMET Equivalent			
ATC0805X7R103KL2ST				C0805C103K5RAC			
① ATC-0805	② X7R	③ 103	④ K	⑤ L	⑥ 2	⑦ S	⑧ T
ATC Series	Dielectric	Capacitance Code	Capacitance Tolerance	Termination Code	Voltage	Marking	Packaging
① Series	② Dielectric	③ Capacitance Code, pF		④ Capacitance Tolerance (pF)			
ATC0603	NPO	First two digits are capacitance in picofarads, the third digit is the number of zeros that follow for values less than 10 pF or fractional values, use “R” for decimal point.		B = ± 0.1 pF		J = ± 5%	
ATC0805	X7R			C = ± 0.25 pF		K = ± 10%	
ATC1206	Z5U			D = ± 0.5 pF		M = ± 20%	
ATC1210				F = ± 1%		P = (GMV + 100 -0%)	
ATC1812				G = ± 2%		Z = GMV (+80%, -20%)	
ATC2225							
⑤ Termination		⑥ Voltage	⑦ Marking	⑧ Packaging			
L: Nickel/Solder		2 = 50 3 = 100	X = Laser Marking A = No Marking S = EIA Marking	T = Tape and Reel - 7” R = Tape and Reel - 13” B = Bulk			

AVX

AVX Part Number				KEMET Equivalent				
08055C103KAT1A				C0805C103K5RAC Reeled				
① 0805	② 5	③ C	④ 103	⑤ K	⑥ A	⑦ T	⑧ 1	⑨ A
Chip Size	Voltage Rating	Temperature Characteristic	Capacitance Code	Capacitance Tolerance	Failure Rate	Termination	Marking Packaging	
① Chip Size	② Voltage Rating	③ Temperature Characteristic	④ Capacitance Code, pF	⑤ Capacitance Tolerance	⑥ Failure Rate			
0402	6 = 6.3V	NP0 = A	First two digits	EIA Standard	A = Not Applicable			
0603	Z = 10V	X7R = C	are significant and					
0805	Y = 16V	Z5U = E	the third digit the					
1005	3 = 25V	Y5V = G	number of zeros that					
1206	5 = 50V		follow, use “R” for decimal					
1210	1 = 100V		point. 10,000 pF = 103					
1805	2 = 200V							
1808		⑧ Marking/Packaging			⑦ Termination			
1812	1 = 7” Plastic Unmarked	M = 7” Plastic Marked				NiGuard Standard: T = Nickel/Solder		
1825	2 = 7” Paper Unmarked	N = 7” Paper Marked				⑨ Special		
2225	3 = 13” Plastic Unmarked	R = 13” Plastic Marked				A = Standard		
W3A4 Array	4 = 13” Paper Unmarked	S = 13” Paper Marked				T = .026 Max. Thickness		
	7 = Bulk Cassette					S = .022 Max. Thickness		
						R = .018 Max. Thickness		
						F = 1000 pc reel		
						W3A4 Arrays Only		
NOTE: ① =DENOTES POSITION REFERENCE ONLY								
				3				

NOTE: ① =DENOTES POSITION REFERENCE ONLY

CAL-CHIP

Cal Part Number
GMC21X7R103K50NEM

KEMET Equivalent
C0805C103K5RAC

① GMC Style	② 21 Size	③ X7R Temperature Characteristic	④ 103 Capacitance Code (pF)	⑤ K Tolerance	⑥ 50 Voltage	⑦ N End Metalization	⑧ E Packaging	⑨ M Marking
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① Style	② Size	③ Temperature Characteristic	④ Capacitance Code (pF)	⑤ Tolerance	⑥ Voltage
GMC = Chip Capacitor	10 = 0603 21 = 0805 31 = 1206 32 = 1206 43 = 1812 56 = 2220 57 = 2225	CG = C0G X7R = X7R Z5U = Z5U	First two digits are significant and the third digit specifies the number of zeros.	EIA Standard	16 25 50 100 200
		⑦ End Metalization N = Nickel Barrier	⑧ Packaging T = Paper Tape E = Plastic Tape	⑨ Marking M = Marked (0805 & 1206 only)	

CENTRALAB

Centralab equivalent
C103K0805X7RFNT

KEMET Equivalent
C0805C103K5RAC Reeled

① C Prefix	② 103 Capacitance Code	③ K Capacitance Tolerance	④ 0805 Case Size	⑤ X7R Temperature Characteristic	⑥ F Voltage	⑦ N End Metalization	⑧ T Packaging
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② Capacitance Code
First two digits are significant and the third digit specifies the number of zeros.

③ Capacitance Tolerance
EIA Standard

④ Case Size
0805
1005
1206
1210
1808
1812

⑤ Temperature Characteristic
C = C0G
X = X7R
Z = Z5U

⑥ Voltage
F = 50V
H = 100V
K = 200V

⑦ End Metallization
N = Ni/Sn
L = Ni/Solder

⑧ Packaging
T = Tape & Reel
B = Bulk

JOHANSON

Johanson Part Number
500R15W103KV6E

KEMET Equivalent
C0805C103K5RAC Reeled

① 500 Voltage	② R15 Case Size	③ W Temperature Characteristic	④ 103 Capacitance Code	⑤ K Capacitance Tolerance	⑥ V Termination	⑦ 6 Marking	⑧ E Packaging
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① Voltage
160 = 16V
250 = 25V
500 = 50V
101 = 100V

② Case Size
R07 = 0402
R14 = 0603
R15 = 0805
R18 = 1206
S41 = 1210
R29 = 1808
S43 = 1812

③ Temperature Characteristic
N = NPO
W = X7R
Z = Z5U
Y = Y5V

④ Capacitance Code (pF)
First two digits are significant, the third digit signifies the number of zeros.

⑤ Capacitance Tolerance
EIA Standard

⑥ Termination
V = Ni/Sn

⑦ Marking
4 = No Mark
6 = Marking

⑧ Packaging
R = 13" Paper
T = 7" Paper Reel
E = 7" Plastic Reel
U = 13" Plastic Reel
None – Bulk

KOA

KOA Part Number

0805X7RHTe103K

① 0805

Chip
Size

② X7R

Dielectric

③ H

Voltage

④ TE

Packaging

KEMET Equivalent

C0805C103K5RAC, Reeled

⑤ 103

Capacitance
Code

⑥ K

Capacitance
Tolerance

① Chip
Size

0402
0603
0805
1206
1210
1812
1825

② Dielectric

NP0
X7R
Z5U
Y5V

③ Voltage

C = 16V
E = 25V
H = 50V
I = 100V
J = 200V

④ Packaging

T = 7" Paper Reel
TE = 7" Plastic Reel
B = 13" Plastic Reel
D = 13" Paper Reel

⑤ Capacitance
Code

First two digits are
capacitance in picofarads,
the third digit is the number
of zeros that follow. For
values less than 10pF or
fractional values, use "R"
for decimal point.

⑥ Capacitance
Tolerance

EIA Standard

KYOCERA

Kyocera Part Number

CM21X7R103K50AT

① CM

CM
Series

② 21

Case
Size

③ X7R

Temperature
Characteristic

④ 103

Capacitance
Code

⑤ K

Capacitance
Tolerance

⑥ 50

Voltage

⑦ A

Termination

⑧ T

Packaging

② Case
Size

05=0402
105=0603
21=0805
316=1206
32=1210
42=1808
43=1812
55=2220

③ Temperature
Characteristic

CG=C0G
X7R=X7R
Y5V=Y5V

④ Capacitance
Code (pF)

First two digits are significant, the third digit
signifies the number of zeros. "R" denotes
the decimal point in which case all figures
become significant.

⑥ Voltage

16
25
50
100
200

⑤ Capacitance Tolerance

EIA Standard

⑦ Termination

A = Nickel Barrier

⑧ Packaging

B = Bulk (Vinyl Bags) L = 13"Reels (4mm Pitch)
C = Bulk Cassette H = 7"Reels (2mm Pitch)
T = 7"Reels (4mm Pitch) N = 13"Reels (4mm Pitch)

MARCON (NIPPON CHEMI-CON)

Marcon Part Number

THCS20E1E103ZT

① THC

Series

② S

End
Metalization

③ 20

Size

④ E

Dielectric

⑤ 1E

Voltage

⑥ 103

Capacitance
Code

⑦ Z

Tolerance

⑧ T

Packaging

KEMET Equivalent

C0805C103Z3VAC Reeled

① Series

TCC = No Barrier
THC = Ni Barrier

② End Metalization

R = Reflow
S = Wave/Reflow

③ Size

20 = 0805
30 = 1206
40 = 1210
50 = 1812
60 = 2220

④ Dielectric

E = Y5U

⑤ Voltage

1E = 25V
1H = 50V
2A = 100V
2D = 200V

⑥ Capacitance Code

First two digits
are significant,
the third digit
signifies the
number of zeros.

⑦ Tolerance

EIA Standard

⑧ Packaging

T = Tape & Reel

MMC (MITSUBISHI)

Mitsubishi Part Number

C20F1E103Z

KEMET Equivalent

C0805C103Z5UAV

① **C20**

Case
Size

② **F**

Temperature
Characteristic

③ **1E**

Voltage

④ **103**

Capacitance
Code

⑤ **Z**

Capacitance
Tolerance

① **Case
Size**

C20 = 0805
C30 = 1206
C40 = 1210

② **Temperature
Characteristic**

CG/CH = NPO
B/R = X7R
F = Z5U

③ **Voltage**

1E = 50V

④ **Capacitance
Code (pF)**

First two digits are
significant, the third digit
signifies the number of zeros.
"R" denotes the decimal
point in which case all
figures become significant.

⑤ **Capacitance Tolerance**

EIA Standard

MURATA

Murata Part Number

GRM40X7R103K50BL

KEMET Equivalent

C0805C103K5RAV Reeled

① **GRM40**

Termination/
Size

② **X7R**

Temperature
Characteristic

③ **103**

Capacitance
Code (pF)

④ **K**

Capacitance
Tolerance

⑤ **050**

Voltage

⑥ **B**

Marking

⑦ **L**

Packaging

① **Termination/Size**

GRM = Barrier Layer
GRK = Automotive Grade GRM
33 = 0201
36 = 0402
39 = 0603
40 = 0805
42-6 = 1206
42-2 = 1210
43-2 = 1812
44-1 = 2220
44 = 2225
GNM30-401 = 1632

② **Temperature
Characteristic**

C0G
X7R
Z5U
Y5V

③ **Capacitance
Code**

First two digits are
significant, last digit
signifies the number of
zeros. Values below
10 pF use a leading zero

④ **Capacitance Tolerance**

EIA Standard

⑤ **Voltage**

Two or
three digit
number

⑥ **Marking**

A = Unmarked
B = EIA Marked
C = Special Marking

⑦ **Packaging**

D = 7" Paper Reel
L = 7" Plastic Reel
J = 13" Paper Reel
K = 13" Plastic Reel
B = Bulk
C = Bulk Cassette
Q = 7" Paper 2mm Pitch
PC = Bulk Cassette

NIC (NIPPON)

NIC Part Number

NMC0805X7R103K50TRPLP

KEMET Equivalent

C0805C103K5RAC Reeled

① **NMC**

Series

② **0805**

Size

③ **X7R**

Dielectric

④ **103**

Capacitance
Code

⑤ **K**

Capacitance
Tolerance

⑥ **50**

Voltage

⑦ **TR**

Packaging

⑧ **PL**

Tape
Material

⑨ **P**

Reel
Material

① **Series**

NMC - Chip

② **Size**

0603
0805
1206
1210
1812
2220

③ **Dielectric**

NP0
X7R
Z5U
Y5V

④ **Capacitance
Code**

First two digits are
significant, the third
digit signifies the
number of zeros.
"R" denotes the
decimal point in
which case all figures
become significant.

⑤ **Capacitance
Tolerance**

EIA Standard

⑥ **Voltage**

16
25
50

⑦ **Packaging**

B = Bulk
TR = Tape Reel

⑧ **Tape Material**

— = Paper
PL = Plastic

⑨ **Reel Material**

— = Paper
P = Plastic

NOVACAP

Novacap Part Number

1206N102J101PT*

① 0805	② B	③ 103	④ K	⑤ 500	⑥ N	⑦ *	⑧ T
Case Size	Temperature Characteristic	Capacitance Code	Capacitance Tolerance	Voltage	Termination	Thickness	Packaging
① Case Size	② Temperature Characteristic	③ Capacitance Code	④ Capacitance Tolerance	⑤ Voltage	⑥ Termination	⑦ Thickness	⑧ Packaging
0402 0603 0805 1005 1206 1210 1808 1812 1825 2225	N = NPO B = X7R X = BX Z = Z5U Y = Y5V	First two digits are significant, the third digit signifies the number of zeros. "R" denotes the decimal point in which case all figures become significant.	EIA Standard	Two significant figures, followed by multiplier of 10 250 = 25V 500 = 50V 101 = 100V 201 = 200V 102 = 1000V 103 = 10,000V			
		⑥ Termination P = Silver/Palladium S = Silver N = Nickel Barrier	⑧ Packaging * = Bulk T = Reeled	⑦ Thickness x=non-standard			

PANASONIC (MATSUSHITA)

Panasonic Part Number

ECUY1H103KBN or ECJ2YB1H103K

KEMET Equivalent

C0805C103K5RAC Reeled

① ECU or ECJ*	② Y	③ IH	④ 103	⑤ K	⑥ B	⑦ N
Multilayer Ceramic Capacitor	Packaging	Voltage	Capacitance Code	Capacitance Tolerance	Temperature Characteristic	Case Size
② Packaging	③ Voltage	④ Capacitance Code	⑤ Capacitance Tolerance	⑥ Temperature Characteristic	⑦ Case Size	⑧ Packaging
X = Bulk E = Paper 2mm V = Paper 4mm Y = Plastic 4mm W & Z = Large Reels 4mm C = Bulk Cassette	IA = 10V IC = 16V IH = 50V IE = 25V 2A = 100V 2D = 200V	First two digits are significant, the third digit signifies the number of zeros. "R" denotes the decimal point in which case all figures are significant.	C = ± .25 pF D = ± .5 pF F = ± 1 pF J = ± 5% K = ± 10% M = ± 20% Z = +80, -20%	C = NPO P = N150 R = N220 S = N330 T = N470 U = N750 B = X7R F = Y5V	Q = 0402 V = 0603 N,G,X = 0805 M,H,W = 1206 0 = 0402 (ECJ) 1 = 0603 (ECJ) 2 = 0805 (ECJ) 3 = 1206 (ECJ)	

*ECJ P/N system differs slightly in P/N order from above.

PHILIPS

Philips Part Number

08052R103K9BB2EA

KEMET Equivalent

C0805C103K5RAC Tape & Reeled

① 0805	② 2R	③ 103	④ K	⑤ 9	⑥ B	⑦ B	⑧ 2	⑨ EA
Case Size	Dielectric	Capacitance Code	Capacitance Tolerance	Voltage	End Metalization	Packaging	Marking	Series
① Case Size	② Dielectric	③ Capacitance Code	④ Capacitance Tolerance	⑤ Voltage	⑥ End Metalization	⑦ Packaging	⑧ Marking	⑨ Series
0603 0805 1206 1210 1812 2220 0612=ARRAY	CG = C0G 2R = X7R 2F = Y5U 2E = Z5U	First two digits are significant the third digit signifies the number of zeros.	EIA Standard	7 = 16V 8 = 25V 9 = 50V 0 = 100V B = 200V	B = Ni/Sn C = Ni/Solder	B = 7" Plastic D = 13" Plastic 2 = 7" Paper 3 = 13" Paper P = Bulk Case	2 = 2 Character Marking 0 = No Marking	EA = Compact MA = Microwave

PRESIDIO

Presidio Part Number

0805X7R103K2

KEMET Equivalent

C0805C102K5GAV

① **0805**

Case
Size

② **NPO**

Temperature
Characteristic

③ **102**

Capacitance
Code

④ **K**

Capacitance
Tolerance

⑤ **2**

Voltage

⑥ **P**

Termination

① **Case
Size**

0805
1005
1808
1812
2225

② **Temperature
Characteristic**

NPO
BX
X7R
Z5U

③ **Capacitance
Code**

First two digits
are significant
the third digit,
signifies the number
of zeros.

④ **Capacitance
Tolerance**

EIA Standard

⑤ **Voltage**

1 = 25V
2 = 50V
3 = 100V
4 = 200V

⑥ **Termination**

P = Palladium Silver
S = Silver
T = Solder Coated
G = Gold

ROHM

Rohm Part Number

MCH215C103KPN

KEMET Equivalent

C0805C103K5RAC T&R Reeled

① **MCH**

Style

② **21**

Size

③ **5**

Voltage

④ **C**

Dielectric

⑤ **103**

Capacitance
Code

⑥ **K**

Capacitance
Tolerance

⑦ **P**

Packaging

⑧ **N**

Marking/
Thickness

① **Style**

MCH = Ni/Solder
MNA = Arrays

② **Size**

14 = 1632 Arrays
15 = 0402
18 = 0603
21 = 0805
31 = 1206
32 = 1210
43 = 1812

③ **Voltage**

2 = 25
3 = 16
5 = 50

④ **Dielectric**

A = C0G
C = X7R
E = Z5U
F = Y5V

⑤ **Capacitance
Code**

First two digits
are significant,
the third digit
signifies the
number of zeros.

⑥ **Capacitance
Tolerance**

EIA Standard

⑦ **Packaging**

P = 7" Plastic
Q = 13" Plastic
K = 7" Paper
L = 13" Paper
C = Bulk Cassette
B = Bulk Bags

⑧ **Marking**

N = Marked
Special Thickness

S + M (EPCOS)

S&M Part Number

B37941K5103K-82

KEMET Equivalent

C0805C103K5RAC Reeled

① **B37941**

Style

② **K**

Termination

③ **5**

Voltage

④ **103**

Capacitance
Code

⑤ **K**

Capacitance
Tolerance

⑥

Dec

⑦ **82**

Packaging

① **Style**

Size	C0G	X7R	Z5U
0402	B37920	B37921	B37922
0603	B37930	B37931	B37932
0805	B37940	B37941	B37942
1206	B37971	B37872	B37873
1210	B37949	B37950	B37951
1812		B37953	B37954
2220		B37956	B37957

② **Termination**

K = NiSn

③ **Voltage**

0 = 25
5 = 50
1 = 100

④ **Capacitance
Code (pF)**

First two digits are
significant, the third digit
signifies the number of zeros.

⑤ **Capacitance Tolerance**

EIA Standard

⑥ **Decimal**

Used only
for low cap
under 10 pF

⑦ **Packaging**

62 = 7" Plastic Tape
72 = 13" Plastic Tape
60 = 7" Paper Tape
70 = 13" Paper Tape
01 = Bulk Cassette
82 = 7" Plastic w/markd chips
22 = 13" Plastic w/markd chips

SAMSUNG

Samsung Part Number

CL21B103KBNE

KEMET Equivalent

C0805C103K5RAC Reeled

① CL	② 21	③ B	④ 103	⑤ K	⑥ B	⑦ N	⑧ E
Ceramic Chip	Case Size	Temperature Characteristic	Capacitance Code	Capacitance Tolerance	Voltage	Termination	Packaging
② Case Size	③ Temperature Characteristic	④ Capacitance Code	⑤ Capacitance Tolerance	⑥ Voltage			
10 = 0603 21 = 0805 31 = 1206 32 = 1210	C = NP0 B = X7R Y = Y5V E = Z5U	First two digits are significant, the third digit signifies the number of zeros.	EIA Standard	O = 16V A = 25V B = 50V C = 100V			
⑦ Termination		⑧ Packaging					
P = Silver/Palladium S = Silver N = Nickel Barrier		B = Bulk C = Paper Tape E = Plastic Tape P = Bulk Cassette					

SAN FERNANDO ELECTRIC

(SFE Technologies)

S.F.E. Part Number

SG0805BX103KWAT

KEMET Equivalent

C0805C103K5RAC Marked Reeled

① S	② G	③ 0805	④ BX	⑤ 103	⑥ K	⑦ W	⑧ A	⑨ T
San Fernando Series	Voltage	Case Size	Temperature Characteristic	Capacitance Code	Capacitance Tolerance	Termination	Marking	Packaging
② Voltage	③ Case Size	④ Temperature Characteristic	⑤ Capacitance Code	⑥ Capacitance Tolerance	⑦ Termination	⑧ Marking	⑨ Packaging	
L = 25V G = 50V B = 100V R = 200V	0805 1005 1206 1210 1805 1808 1812 1825 2225	BY = C0G BX = X7R BZ = Z5U	First two digits are significant, the third digit signifies the number of zeros.	EIA Standard				
		⑦ Termination	⑧ Marking	⑨ Packaging				
		W = Nickel Barrier Solder Plate P = Palladium Silver N = Nickel Barrier SN62 Solder Dip S = Palladium Silver SN62 Solder Dip	A = Marking	T = Reeling				

SPRAGUE

Sprague Part Number

681C0805COG100J500FTM

KEMET Equivalent

C0805C100J5GAV Bulk Marked

① 681C	② 0805	③ COG	④ 100	⑤ J	⑥ 500	⑦ F	⑧ T and/or M
Sprague Type Number	Case Size	Temperature Characteristic	Capacitance Code	Capacitance Tolerance	Voltage	Termination	Packaging and/or Marking
② Case Size	③ Temperature Characteristic		④ Capacitance Code		⑤ Capacitance Tolerance		
0805	COG = NPO		First two digits are significant, the third digit signifies the number of zeros.		C = ± .25 pF		
1005	X7R				D = ± .5 pF		
1206	X5R				F = ± 1%		
1210	Z5U				G = ± 2%		
1808	Y5U				J = ± 5%		
1812					K = ± 10%		
1825					M = ± 20%		
							P = GMV
							Y = +50, -20%
							Z = +80, -20%
⑥ Voltage	⑦ Termination			⑧ Packaging			
250 = 25V	F = Silver/Palladium			T = Reeled			
500 = 50V	G = Nickel Barrier + Electro-Tin (100% Sn)			B = Bulk			
630 = 63V	L = Nickel Barrier + Hot Tin (62% Sn)			M = Bulk and Marked			
101 = 100V	C = SN62			R = Reeled and Marked			
201 = 200V				S = Special			

NOTE: ① = DENOTES POSITION REFERENCE ONLY

SYFER

Syfer Part Number

0805J0500103KXT

① 0805 Size	② J Termination	③ 050 Voltage	④ 0103 Capacitance Code	⑤ K Tolerance	⑥ X Temperature Characteristic	⑦ T Packaging
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① Size	② Termination	③ Voltage	④ Capacitance Code	⑤ Tolerance	⑥ Temperature Characteristic
0805 1206 1210 1812 2220	J = Ni/solder F = AgPd K = Ni Solder dipped	050 = 50 063 = 63 100 = 100 200 = 200	0+EIA Standard	EIA Standard	C = COG B = BX R = X7R X = X7R Z = Z5U
⑦ Packaging					
T = 7" Plastic Tape R = 13" Plastic Tape B = Bulk tubs C = Bulk cassette					

TDK

TDK Part Number

C2012X7R1H103KT

① C2012 Case Size	② X7R Temperature Characteristic	③ 1H Voltage	④ 103 Capacitance Code	⑤ K Capacitance Tolerance	⑥ T Packaging
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① Case Size	② Temperature Characteristic	③ Voltage	④ Capacitance Code	⑤ Capacitance Tolerance	⑥ Packaging
C1005 = 0402 C1608 = 0603 C2012 = 0805 C3216 = 1206 C3225 = 1210 C4532 = 1812 C5650 = 2220 CKCA43 = 1632 Array	COG X7R Y5U Z5U	0J = 6.3V 1A = 10V 1C = 16V 1E = 25V 1H = 50V	The first two digits are significant, the third digit indicating the number of zeros. "R" denotes a decimal.	EIA Standard	T = Tape & Reel B = Bulk

TAIYO YUDEN

Taiyo Yuden Part Number

UMK212B103KT

① U Voltage	② M Type	③ K End Metallization	④ 212 Case Size	⑤ B Temperature Characteristic	⑥ 103 Capacitance Code	⑦ K Capacitance Tolerance	⑧ Special	⑨ T Packaging
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① Voltage	② Type	③ End Metallization	④ Case Size	⑤ Temperature Characteristic	⑥ Capacitance Code (pF)
J = 6.3 L = 10 E = 16 T = 25 U = 50	M = Multilayer V = Hi Q	K = Ni Barrier Multilayer	105 = 0402 107 = 0603 212 = 0805 316 = 1206 325 = 1210 432 = 1812 550 = 2220	B = X7R J = X7R/X5R BME F = Y5V CK = C0K (use C0G) CJ = C0J (use C0G) CH = C0H (use C0G) CG = C0G	First two digits are significant, the third digit signifies the number of zeros.

⑦ Capacitance Tolerance EIA Standard	⑧ Special Various	⑨ Packaging B = Bulk T = Reel F = Tape and Reel
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UCC United Chemi-Con

UCC Part Number

TCCS20E1E333MT

① TCC Series	② S End Metalization	③ 20 Size	④ E Dielectric	⑤ 1E Voltage	⑥ 333 Capacitance Code	⑦ M Capacitance Tolerance	⑧ T Packaging
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① Series

TCC = Standard
THC = Hi Cap

② End Metalization

R = Silver
S = Ni Solder

③ Size

20 = 0805
30 = 1206
40 = 1210
50 = 1812
60 = 2220
70 = 3025

④ Dielectric

E = Y5U

⑤ Voltage

1D = 20
1E = 25
1H = 50
2A = 100
2D = 200

⑥ Capacitance Code

First two digits are significant, the third digit signifies the number of zeros.

⑦ Termination

EIA Standard

⑧ Packaging

T = 7" Reel

VITRAMON

Vitramon Part Number

VJ0805Y103KXAMT

KEMET Equivalent

C0805C103K5RAC Marked and Reeled

① VJ0805 Style/Size	② Y Temperature Characteristic	③ 103 Capacitance Code	④ K Capacitance Tolerance	⑤ X Termination	⑥ A Voltage	⑦ M Marking	⑧ T Packaging
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① Style/Size

VJ0402 = 0402
VJ0603 = 0603
VJ0805 = 0805
VJ0905 = 1005
VJ1210 = 1210
VJ1805 = 1805
VJ1808 = 1808
VJ1812 = 1812
VJ2224 = 2225
VA6000 = Arrays

② Temperature Characteristic

X = BX
Y = X7R
A = NPO
U = Z5U
N = NPO
H = X8R

③ Capacitance Code

First two digits are significant, the third digit signifies the number of zeros.

④ Capacitance Tolerance

EIA Standard

⑤ Termination

X = Silver, Nickel Barrier, Tin plated finish

⑥ Voltage

J = 16V
X = 25V
A = 50V
B = 100V
C = 200V

⑦ Marking

M = Marking
A = No Marking

⑧ Packaging

T = 7" Plastic Reel
C = 7" Paper Reel
R = 13" Plastic Reel
P = 13" Paper Reel
B = Bulk

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