



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

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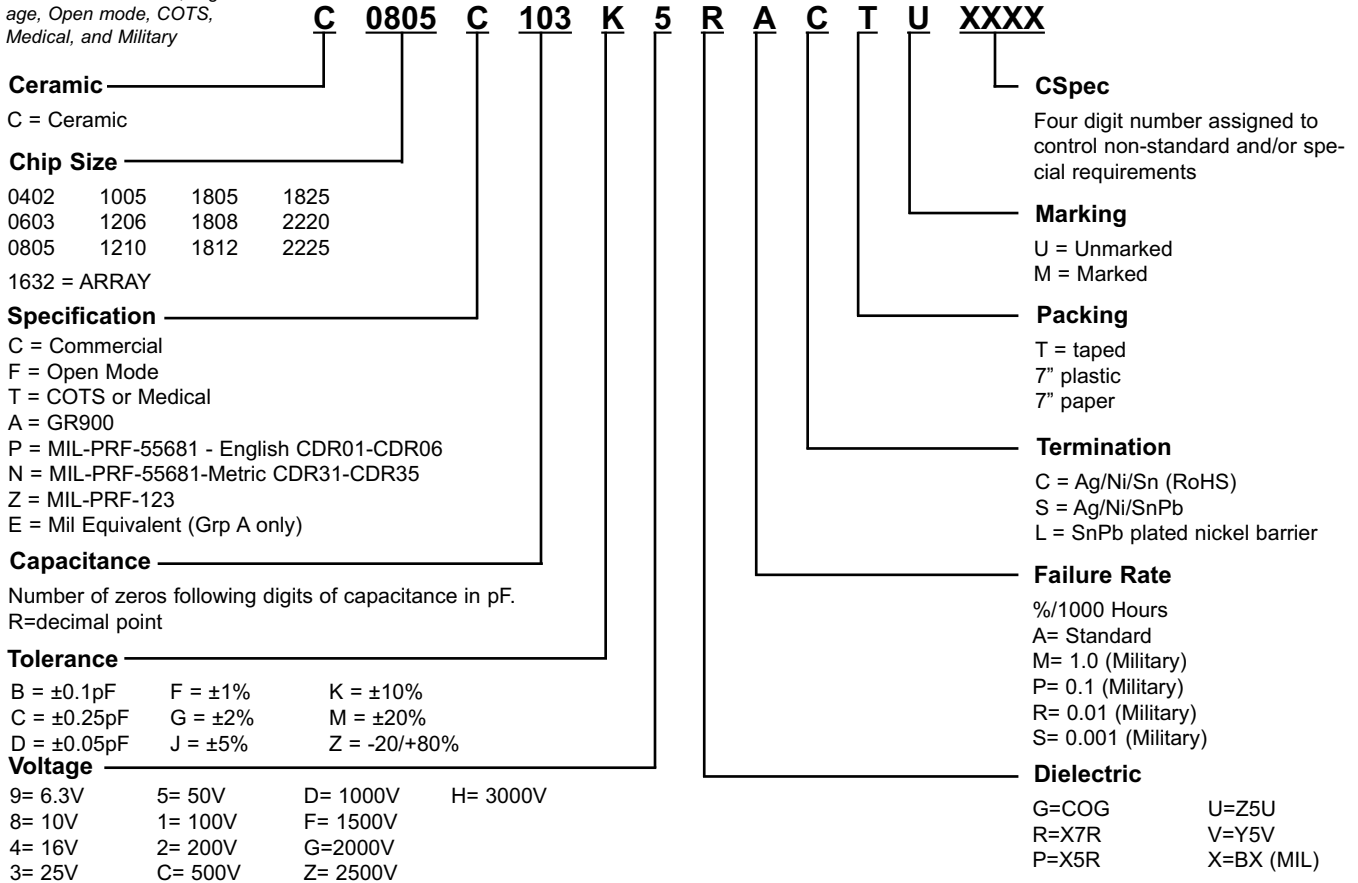
F3068H 10/05



KEMET

KEMET Part No.
C0805C103K5RACTUXXX

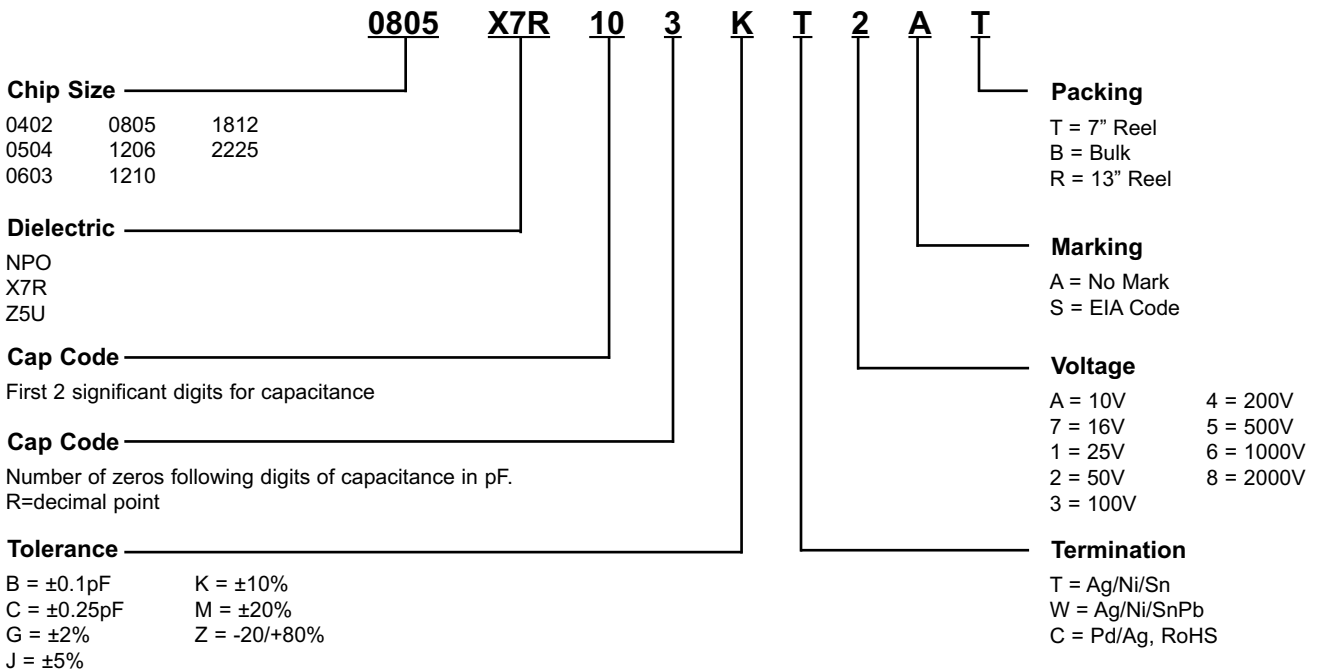
Includes Commercial, High voltage, Open mode, COTS, Medical, and Military



ATCeramics

ATCeramics Part No.
0805X7R103KT2AT

KEMET Equivalent
C0805C103K5RAC





AVX	AVX Part No. 08055C103KAT1A	KEMET Equivalent C0805C103K5RAC
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0805 5 C 103 K A T 1 A

Chip Size

0402	1005	1805	1825
0603	1206	1808	2225
0805	1210	1812	W3A4 ARRAY

Voltage

6 = 6.3v	3 = 25V	2 = 200V
Z = 10V	5 = 50V	
Y = 16V	1 = 100V	

Temperature Characteristic

NPO = A	Z5U = E
X7R = C	Y5V = G
X5R = D	

Cap Code

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point. 0R5 = 0.5pf, 010 = 1.0 pf

Cap Tolerance

EIA Standard

Failure Rate

A = Not Applicable
2 = 200C Rating

Special

A = Standard
T = 0.26 Max. thick. N/B
S = .022 Max thick. N/B
R = 0.18 Max. thick. N/B
F = 1000 pc reel (W3A4 Arrays only)
P = Embossed tape/unmarked
M = Embossed tape/marked
E = Std. Pkg. marked

Marking Packaging

1 = 7" plastic unmarked
2 = 7" plastic marked
3 = 13" plastic unmarked
4 = 13" plastic marked
6 = waffle
7 = bulk cassette
9 = bulk unmarked
B = bulk marked
M = 7" plastic unmarked
N = 7" paper unmarked
R = 13" plastic marked
S = 13" plastic unmarked

Termination

T = Nickel/Tin

AVX/KYOCERA	AVX/Kyocera Part No. CM21X7R103K50AT###	KEMET Equivalent C0805C103K5RAC
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CM 21 X7R 103 K 50 A T ###

Series Code

CM = General Purpose
CF = High Voltage
CT = Low Profile
DM = Automotive
CA = Capacitor Arrays

Chip Size

03 = 0201	316 = 1206	53 = 5728
05 = 0402	32 = 1210	55 = 2220
105 = 0603	42 = 1808	D11 = 0405/2 cap
F12 = 0508/4 cap	43 = 1812	D12 = 0508/2 cap
21 = 0805	52 = 2208	

Dielectric

CG = C0G	X7R	X6S (option)
X5R	X7S	Y5V

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point

Tolerance

A = ±0.05pF	D = ±0.05pF	J = ±5%	Z = -20/+80%
B = ±0.1pF	F = ±1%	K = ±10%	
C = ±0.25pF	G = ±2%	M = ±20%	

Thickness Option

CT Series Only
125 = 1.25mm max
095 = 0.95mm max

Packing

B = Bulk
C = Bulk Cassette
T = 7" Reel & 4mm Cavity Pitch
L = 13" Reel & 4mm Cavity Pitch
H = 7" Reel & 2mm Cavity Pitch
N = 13" Reel & 2mm Cavity Pitch

Termination

A = Ag/Ni/Sn
B = Pd/Ag
C = Ag

Voltage

04 = 4V	100 = 100V
06 = 6.3V	250 = 250V
10 = 10V	400 = 400V
16 = 16V	630 = 630V
25 = 25V	1000 = 1000V
35 = 35V	2000 = 2000V
50 = 50V	3000 = 3000V



BC COMPONENTS (Vishay)	BC Components Part No.	KEMET Equivalent C0805C103K5RAC
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<p style="text-align: center;">VJ0805 Y 103 K X A A T ###</p> <p>Chip Size</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>0402</td><td>1206</td><td>1825</td></tr> <tr><td>0603</td><td>1210</td><td>2220</td></tr> <tr><td>0612</td><td>1808</td><td>2225</td></tr> <tr><td>0805</td><td>1812</td><td>3640</td></tr> </table> <p>Dielectric</p> <p>A = C0G X = BX Q = HIGH Q Y = X7R H = X8R</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p> <p>Tolerance</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>C = ±0.25pF</td><td>J = ±5%</td></tr> <tr><td>D = ±0.05pF</td><td>K = ±10%</td></tr> <tr><td>F = ±1%</td><td>M = ±20%</td></tr> <tr><td>G = ±2%</td><td></td></tr> </table> <p>Termination</p> <p>X = Ag/Ni/Sn F = Pd/Ag L = AG/Ni/SnPb</p>	0402	1206	1825	0603	1210	2220	0612	1808	2225	0805	1812	3640	C = ±0.25pF	J = ±5%	D = ±0.05pF	K = ±10%	F = ±1%	M = ±20%	G = ±2%		<p>Process Code</p> <p>Added with up to three digits to control non-standard and/or special requirements</p> <p>Packing</p> <p>T = 7" Plastic C = 7" Paper R = 11¼" Plastic P = 11¼" Paper O = 7" Flamed Paper I = 13" Flamed Paper</p> <p>Marking</p> <p>A = No Mark M = Marked</p> <p>Voltage</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>Y = 6.3V</td><td>B = 100V</td><td>L = 630V</td></tr> <tr><td>Q = 10V</td><td>C = 200V</td><td>G = 1000V</td></tr> <tr><td>J = 16V</td><td>P = 250V</td><td>R = 1500V</td></tr> <tr><td>X = 25V</td><td>D = 300V</td><td>F = 2000V</td></tr> <tr><td>A = 50V</td><td>E = 500V</td><td>H = 3000V</td></tr> </table>	Y = 6.3V	B = 100V	L = 630V	Q = 10V	C = 200V	G = 1000V	J = 16V	P = 250V	R = 1500V	X = 25V	D = 300V	F = 2000V	A = 50V	E = 500V	H = 3000V
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EPCOS	EPCOS Part No. B37941K5103K062	KEMET Equivalent C0805C103K5RAC
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<p style="text-align: center;">B37941 K 5 103 K 0 62</p> <p>Style</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SIZE</th> <th>COG</th> <th>X7R</th> <th>X5R</th> </tr> </thead> <tbody> <tr><td>0402</td><td>B37920</td><td>B37921</td><td>B37621</td></tr> <tr><td>0603</td><td>B37930</td><td>B37931</td><td>B37631</td></tr> <tr><td>0805</td><td>B37940</td><td>B37941</td><td>B37641</td></tr> <tr><td>1206</td><td>B37971</td><td>B37972</td><td>B37572</td></tr> <tr><td>1210</td><td>B37949</td><td>B37950</td><td>B37650</td></tr> <tr><td>1812</td><td></td><td>B37953</td><td>B37653</td></tr> <tr><td>2220</td><td></td><td>B37956</td><td></td></tr> </tbody> </table> <p>FEEDTHRU COG</p> <p>1206 X7R B37872U</p> <p>HQF COG (high frequency)</p> <p>0402 B37923 0603 B37933</p> <p>CPPS COG (Film chip cap replacement)</p> <p>0603 B37937 0805 B37947</p> <p>HC1 COG (equivalent)</p> <p>0402 B37627 0603 B37637 0805 B37647</p> <p>ARRAY COG</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>0405</td><td>B37830R</td><td>B37831R</td></tr> <tr><td>0508</td><td>B37940R</td><td>B37941R</td></tr> <tr><td>0612</td><td>B37871R</td><td>B37872R</td></tr> </table> <p>Termination</p> <p>K = Ag/Ni/Sn J = Pd/Ag R = Ag/Ni/Sn (Array)</p>	SIZE	COG	X7R	X5R	0402	B37920	B37921	B37621	0603	B37930	B37931	B37631	0805	B37940	B37941	B37641	1206	B37971	B37972	B37572	1210	B37949	B37950	B37650	1812		B37953	B37653	2220		B37956		0405	B37830R	B37831R	0508	B37940R	B37941R	0612	B37871R	B37872R	<p>Packing</p> <p>60 = 7" paper 62 = 7" plastic 70 = 13" paper 72 = 13" plastic 01 = bulk case 1 = 7" paper (Array) 3 = 13" paper (Array)</p> <p># of Decimal</p> <p>points if <10pF 2 = 2 chips (Array) 4 = 4 chips (Array)</p> <p>Tolerance</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>C = ±0.25pF</td><td>J = ±5%</td></tr> <tr><td>D = ±0.05pF</td><td>K = ±10%</td></tr> <tr><td>F = ±1%</td><td>M = ±20%</td></tr> <tr><td>G = ±2%</td><td></td></tr> </table> <p>Capacitance</p> <p>010 = 1pF 100 = 10pF 101 = 100pF</p> <p>Voltage</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>5 = 50V</td><td>9 = 16V</td></tr> <tr><td>1 = 100V</td><td>0 = 25V</td></tr> <tr><td>2 = 200V</td><td></td></tr> </table>	C = ±0.25pF	J = ±5%	D = ±0.05pF	K = ±10%	F = ±1%	M = ±20%	G = ±2%		5 = 50V	9 = 16V	1 = 100V	0 = 25V	2 = 200V	
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0603	B37930	B37931	B37631																																																					
0805	B37940	B37941	B37641																																																					
1206	B37971	B37972	B37572																																																					
1210	B37949	B37950	B37650																																																					
1812		B37953	B37653																																																					
2220		B37956																																																						
0405	B37830R	B37831R																																																						
0508	B37940R	B37941R																																																						
0612	B37871R	B37872R																																																						
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KOA	KOA Part No. X7R0805HTTE103K	KEMET Equivalent C0805C103K5RAC
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<p>Dielectric</p> <p>NPO X5R Z5U X7R Y5V HFC = Hi frequency</p> <p>Chip Size</p> <table border="0"> <tr> <td>0402</td> <td>0805</td> <td>1210</td> <td>1825</td> <td>1608 - Hi freq.</td> </tr> <tr> <td>0603</td> <td>1206</td> <td>1812</td> <td>2220</td> <td></td> </tr> </table> <p>Voltage</p> <p>A = 10V C = 16V E = 25V H = 50V I = 100V</p> <p>Termination</p> <p>T = Sn</p>	0402	0805	1210	1825	1608 - Hi freq.	0603	1206	1812	2220		<p>X7R 0805 H T TE 103 K</p>	<p>Tolerance</p> <p>B = ±0.1pF F = ±1% K = ±10% C = ±0.25pF G = ±2% M = ±20% D = ±0.5pF J = ±5% Z = -20/+80%</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p> <p>Packing</p> <p>TP = 7" 2mm (0402) TDB = 13" paper TD = 7" paper TEB = 13" plastic TE = 7" plastic</p>
0402	0805	1210	1825	1608 - Hi freq.								
0603	1206	1812	2220									

<p>Array</p> <p>Type</p> <p>MCA = Array</p> <p>Size</p> <p>1J4 = 0603</p> <p>Dielectric</p> <p>NPO X7R Y5V</p> <p>Voltage</p> <p>C = 16V H = 50V E = 25V</p>	<p>MCA 1J4 NP0 H T TD 104 J</p>	<p>Tolerance</p> <p>J = ±5% K = ±10% Z = -20/+80%</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p> <p>Packing</p> <p>TD = 7" paper</p> <p>Termination</p> <p>T = Sn</p>
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MURATA	Murata Part No. GRM21BR71H103KA01L	KEMET Equivalent C0805C103K5RAC
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<p>Product ID</p> <p>GR= Sn Plated Layer LL= Low ESL wide width ER= Hi Freq GJ= Hi Freq Sn Plated GQ= Hi Freq reflow solder GA= Safety Standard GM= Monolithic Microchip GC= Automotive SnPb or Sn GN= Array</p> <p>Series</p> <table border="0"> <tr> <td>GR=M,4</td> <td>GQ=M</td> <td>GN=M</td> <td>GJ=M,6</td> </tr> <tr> <td>ER=F,H,A,D</td> <td>GM=A</td> <td>LL=L</td> <td>GC=P,M</td> </tr> <tr> <td></td> <td></td> <td></td> <td>GA=2,3</td> </tr> </table> <p>Chip Size</p> <table border="0"> <tr> <td>03= 0201</td> <td>15= 0402</td> <td>31= 1206</td> <td>52= 2211</td> </tr> <tr> <td>05= 0202</td> <td>18= 0603</td> <td>32= 1210</td> <td>58= 2220</td> </tr> <tr> <td>08= 0303</td> <td>21= 0805</td> <td>42= 1808</td> <td></td> </tr> <tr> <td>11= 0504</td> <td>22= 1111</td> <td>43= 1812</td> <td></td> </tr> </table> <p>Thickness</p> <table border="0"> <tr> <td>2= 2capArray</td> <td>7= 0.7mm</td> <td>C=1.6mm</td> <td>N= 1.35mm</td> </tr> <tr> <td>3= 0.3mm</td> <td>8= 0.8mm</td> <td>D= 2.0mm</td> <td>R= 1.8mm</td> </tr> <tr> <td>4= 4capArray</td> <td>9= 0.85mm</td> <td>E= 2.5mm</td> <td>S= 2.8mm</td> </tr> <tr> <td>5= 0.5mm</td> <td>A= 1.0mm</td> <td>F= 3.2mm</td> <td>Q= 1.5mm</td> </tr> <tr> <td>6= 0.6mm</td> <td>B=1.25mm</td> <td>M= 1.15mm</td> <td></td> </tr> </table> <p>Dielectric</p> <table border="0"> <tr> <td>5C= COG</td> <td>R6= X5R</td> <td>OG= 4V</td> <td>1C=16V</td> <td>2A= 100V</td> <td>YD= 300V</td> <td>3A= 1000V</td> </tr> <tr> <td>F5= Y5V</td> <td>R7= X7R</td> <td>OJ= 6.3V</td> <td>1E= 25V</td> <td>2D= 200V</td> <td>2H= 500V</td> <td>3D= 2000V</td> </tr> <tr> <td></td> <td></td> <td>1A=10V</td> <td>1H= 50V</td> <td>2E= 250V</td> <td>2J= 630V</td> <td>3F= 3.15V</td> </tr> </table>	GR=M,4	GQ=M	GN=M	GJ=M,6	ER=F,H,A,D	GM=A	LL=L	GC=P,M				GA=2,3	03= 0201	15= 0402	31= 1206	52= 2211	05= 0202	18= 0603	32= 1210	58= 2220	08= 0303	21= 0805	42= 1808		11= 0504	22= 1111	43= 1812		2= 2capArray	7= 0.7mm	C=1.6mm	N= 1.35mm	3= 0.3mm	8= 0.8mm	D= 2.0mm	R= 1.8mm	4= 4capArray	9= 0.85mm	E= 2.5mm	S= 2.8mm	5= 0.5mm	A= 1.0mm	F= 3.2mm	Q= 1.5mm	6= 0.6mm	B=1.25mm	M= 1.15mm		5C= COG	R6= X5R	OG= 4V	1C=16V	2A= 100V	YD= 300V	3A= 1000V	F5= Y5V	R7= X7R	OJ= 6.3V	1E= 25V	2D= 200V	2H= 500V	3D= 2000V			1A=10V	1H= 50V	2E= 250V	2J= 630V	3F= 3.15V	<p>GR M 21 B R7 1H 103 K A01 L</p>	<p>Packing</p> <p>L= 7" Plastic J= 13" Paper B= Bulk D= 7" Paper E= 7" Special C= Bulk Case K= 13" Plastic F= 13" Special T= Bulk Tray</p> <p>Special Code</p> <table border="0"> <tr> <td>A01</td> <td>C01</td> <td>E01</td> <td>W01</td> <td>Y06</td> </tr> <tr> <td>A11</td> <td>C11</td> <td>E19</td> <td>W02</td> <td>Y21</td> </tr> <tr> <td>A12</td> <td>C12</td> <td>E34</td> <td>W03</td> <td>Z01</td> </tr> <tr> <td>A35/A39</td> <td>D01</td> <td>E20</td> <td>W07</td> <td></td> </tr> <tr> <td>A61/A88/A92/A93</td> <td>D02</td> <td>E39</td> <td>Y01</td> <td></td> </tr> <tr> <td>C01</td> <td>DB4</td> <td>V01</td> <td>Y02</td> <td></td> </tr> </table> <p>Tolerance</p> <p>B = ±0.1pF G = ±2% M = ±20% C = ±0.25pF J = ±5% Z = -20/+80% D = ±0.5pF K = ±10% R = Special</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p> <p>Voltage</p>	A01	C01	E01	W01	Y06	A11	C11	E19	W02	Y21	A12	C12	E34	W03	Z01	A35/A39	D01	E20	W07		A61/A88/A92/A93	D02	E39	Y01		C01	DB4	V01	Y02	
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A61/A88/A92/A93	D02	E39	Y01																																																																																																		
C01	DB4	V01	Y02																																																																																																		



NIC (NIPPON)	NIC Part No. NMC0805X7R103K50TRPLP	KEMET Equivalent C0805C103K5RAC
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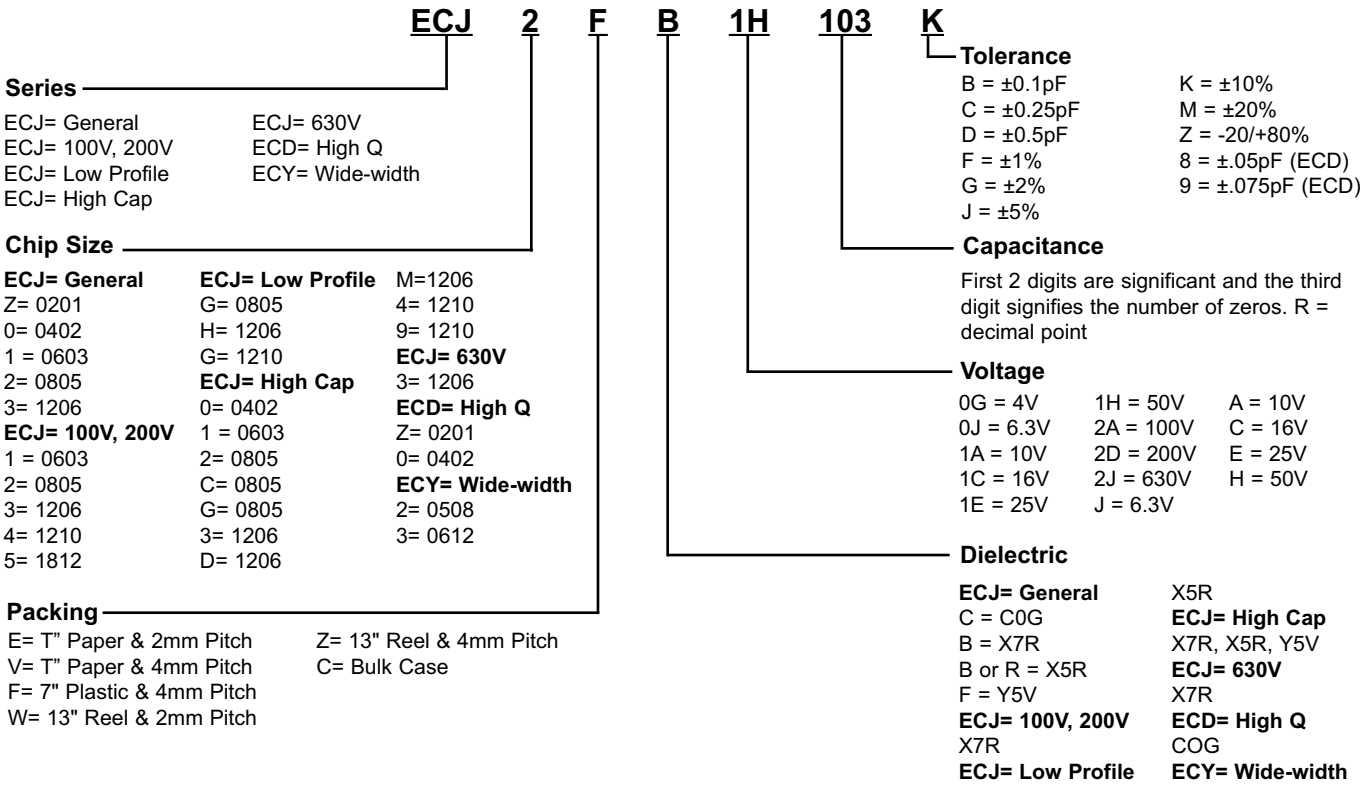
<p style="text-align: center;">NMC 0805 X7R 103 K 50 TRPLP F</p> <p>Series</p> <p>NMC = General Arrays (10V-100V) NMC-H = Hi Voltage NCA0805 = 4 caps NMC-L = Lo ESR NCA1206 = 4 caps NMC-M = Lower ESR High Q @ Hi Freq</p> <p>Chip Size</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>0201</td> <td>0603</td> <td>1206</td> <td>1812</td> </tr> <tr> <td>0402</td> <td>0805</td> <td>1210</td> <td>2220</td> </tr> <tr> <td></td> <td></td> <td></td> <td>2225</td> </tr> </table> <p>Dielectric</p> <p>C0G X5R X7R Y5V</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p>	0201	0603	1206	1812	0402	0805	1210	2220				2225	<p>Termination</p> <p>Lead Free/100% Sn RoHS Compliant</p> <p>Packing</p> <p>TRP = 7" Paper TRPLP = 7" Plastic</p> <p>Voltage</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>6.3V</td> <td>35V</td> <td>500V</td> </tr> <tr> <td>10V</td> <td>50V</td> <td>1000V</td> </tr> <tr> <td>16V</td> <td>100V</td> <td></td> </tr> <tr> <td>25V</td> <td>200V</td> <td></td> </tr> </table> <p>Tolerance</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>B = ±0.1pF</td> <td>J = ±5%</td> </tr> <tr> <td>C = ±0.25pF</td> <td>K = ±10%</td> </tr> <tr> <td>D = ±0.5pF</td> <td>M = ±20%</td> </tr> <tr> <td>F = ±1%</td> <td>Z = -20/+80%</td> </tr> <tr> <td>G = ±2%</td> <td></td> </tr> </table>	6.3V	35V	500V	10V	50V	1000V	16V	100V		25V	200V		B = ±0.1pF	J = ±5%	C = ±0.25pF	K = ±10%	D = ±0.5pF	M = ±20%	F = ±1%	Z = -20/+80%	G = ±2%	
0201	0603	1206	1812																																
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NOVACAP	NOVACAP Part No. 0805B103K500NT	KEMET Equivalent C0805C103K5RAC
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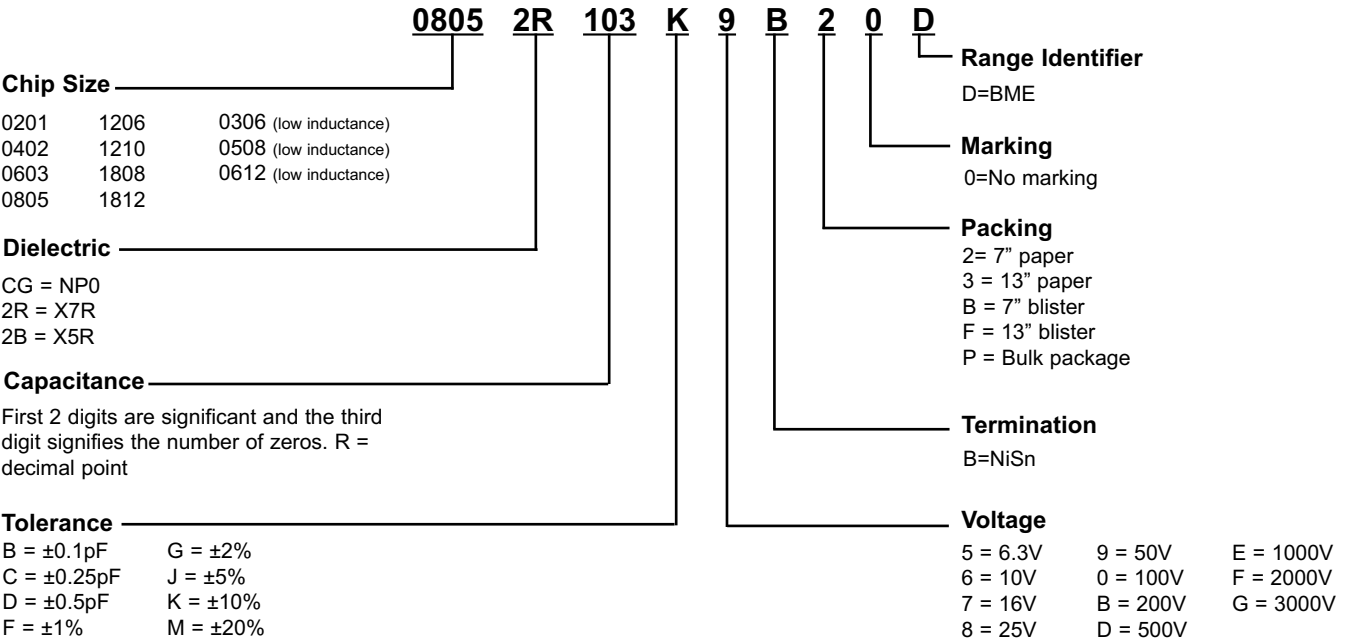
<p style="text-align: center;">0805 B 103 K 500 N X050 H T M</p> <p>Chip Size</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>0402</td> <td>1206</td> <td>1825</td> <td>3333</td> </tr> <tr> <td>0504</td> <td>1210</td> <td>2020</td> <td>3530</td> </tr> <tr> <td>0603</td> <td>1515</td> <td>2221</td> <td>4040</td> </tr> <tr> <td>0805</td> <td>1808</td> <td>2225</td> <td>4540</td> </tr> <tr> <td>1005</td> <td>1812</td> <td>2520</td> <td>5440</td> </tr> </table> <p>Dielectric</p> <p>N = C0G Z = Z5U B = X7R S = X8R (150°C) X = BX D = COG (200°C) Y = Y5V E = CLASS II (Stable) (200°C)</p> <p>Capacitance</p> <p>First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point</p> <p>Tolerance</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>B = ±0.1pF</td> <td>F = ±1%</td> <td>K = ±10%</td> <td>P = +100%/-0</td> </tr> <tr> <td>C = ±0.25pF</td> <td>G = ±2%</td> <td>M = ±20%</td> <td>Z = -20/+80%</td> </tr> <tr> <td>D = ±0.5pF</td> <td>J = ±5%</td> <td>S = +50/-20%</td> <td></td> </tr> </table> <p>Voltage</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>160 = 16V</td> <td>101 = 100V</td> <td>102 = 1000V</td> </tr> <tr> <td>250 = 25V</td> <td>251 = 250V</td> <td>202 = 2000V</td> </tr> <tr> <td>500 = 50V</td> <td>501 = 500V</td> <td>302 = 3000V</td> </tr> </table>	0402	1206	1825	3333	0504	1210	2020	3530	0603	1515	2221	4040	0805	1808	2225	4540	1005	1812	2520	5440	B = ±0.1pF	F = ±1%	K = ±10%	P = +100%/-0	C = ±0.25pF	G = ±2%	M = ±20%	Z = -20/+80%	D = ±0.5pF	J = ±5%	S = +50/-20%		160 = 16V	101 = 100V	102 = 1000V	250 = 25V	251 = 250V	202 = 2000V	500 = 50V	501 = 500V	302 = 3000V	<p>Marking</p> <p>M = Marked None = Unmarked</p> <p>Packing</p> <p>T = Tape & Reel W = Waffle Pack None = Bulk</p> <p>HiRel Testing</p> <p>H = HiRel Testing None = Std. Training</p> <p>Special Thickness</p> <p>X = Special thickness Specify in mils</p> <p>Termination</p> <p>N = Ag/Ni/Sn P = Pd/Ag Y = AG/Ni/SnPb S = Ag C = Polymer/Ni/Sn D = Polymer/Ni/SnPb</p>
0402	1206	1825	3333																																							
0504	1210	2020	3530																																							
0603	1515	2221	4040																																							
0805	1808	2225	4540																																							
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PANASONIC (Matsushita)	Panasonic Part No. ECJ2FB1H103K	KEMET Equivalent C0805C103K5RAC
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PHYCOMP	Phycomp Part No. 08052R103K9B20D	KEMET Equivalent C0805C103K5RAC
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PRESIDIO	Presidio Part No. HR0805X7R103K2NT91	KEMET Equivalent C0805C103K5RAC
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HR 0805 X7R 103 K 2 NT9 1 A

Prefix

HR = Com. & HR
 CR = Equiv. to M55681
 SR = Equiv. to M123, grp. A
 HV = High Voltage

Chip Size

0306	0603	1514	2225	4018
0402	0612	1712	2720	4040
0403	0805	1725	2824	4540
0504	1010	1812	3012	4838
0505	1206	1825	3728	5848
0508	1209	1918	3933	6860

Dielectric

NPQ = HI Q
 NP0
 X7R
 X5R

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point

Tolerance

B = ±0.1pF	G = ±2%	P = +100%/0
C = ±0.25pF	J = ±5%	Z = -20/+80%
D = ±0.5pF	K = ±10%	
F = ±1%	M = ±20%	

Special Code

Add "A" for non-standard dimensions

Packing

- 1= 7" plastic/unmarked
- 2= 7" plastic/marked
- 3= Bulk/unmarked
- 4= Bulk/marked
- 5= Waffle/unmarked
- 6= Waffle/marked
- A= 13" plastic/unmarked
- B= 13" plastic/marked
- C= 7" plastic/unmarked
- D= 13" paper/marked

Termination

P = Pd Ag
 NT9 = 90/10 (SnPb over Ni)
 NG = Au over Ni

Voltage

10V = 10V	4 = 200V	10 = 1500V
12V = 12V	5 = 300V	11 = 2000V
16V = 16V	6 = 500V	12 = 2500V
1 = 25V	7 = 600V	13 = 3000V
2 = 50V	8 = 750V	
3 = 100V	9 = 1000V	

ROHM	ROHM Part No. MCH215CN103KK	KEMET Equivalent C0805C103K5RAC
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MCH 21 5 CN 103 K P

Style

MCH = Ni/Solder
 MNA = Arrays

Chip Size

03= 0201	21= 0805	43= 1812
15= 0402	31= 1206	55= 2220
18= 0603	32= 1210	14 = 1632 Array

Voltage

8 = 6.3V	2 = 25V
4 = 10V	5 = 50V
3 = 16V	

Dielectric

A, AN = C0G CN = X5R
 CN = X7R FN = Y5V

Packing

- K = 7" Paper
- L = 13" Paper
- P = 7" Plastic
- C = Bulk

Tolerance

C = ±0.25pF	M = ±20%
D = ±0.5pF	Z = -20/+80%
J = ±5%	
K = ±10%	

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros.
 R = decimal point

SAMSUNG	Samsung Part No. CL21B103KBCNNE	KEMET Equivalent C0805C103K5RAC
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CL 21 B 103 K B C N N N E

Ceramic Chip —————

Chip Size —————

0201 = 03	0805 = 21	1812 = 43
0402 = 05	1206 = 31	2220 = 55
0603 = 10	1210 = 32	

Dielectric —————

C = C0G	B = X7R
A = X5R	F = Y5V

Capacitance —————

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point

Tolerance —————

A = ±0.05pF	D = ±0.5pF	J = ±5%	P = ±100%/-0
B = ±0.1pF	F = ±1%	K = ±10%	Z = -20/+80%
C = ±0.25pF	G = ±2%	M = ±20%	

Voltage —————

R = 4.0V	A = 25V	D = 200V	I = 1000V
Q = 6.3V	L = 35V	E = 250V	J = 2000V
P = 10V	B = 50V	G = 500V	K = 3000V
O = 16V	C = 100V	H = 630V	

Packing —————

B = Bulk	O = 10" Paper
P = Bulk Case	S = 10" Plastic
C = 7" Paper	
D = 13" Paper (10k)	
E = 7" Plastic	
F = 13" Plastic (10k)	
L = 13" Paper (15k)	

Reserved for future use —————

Control Code —————

A = Array 2 chips	N = Normal
B = Array 4 chips	P = Automotive
C = High Q	L = LICC

Product/Plating —————

Electrode/Termination

Pd	A=Ag/Ni/Sn
Ni	N = Cu/Ni/Sn
Cu	G = Cu/Ni/Sn

Thickness option

3	A	Q	J
5	C	H	V
8	F	I	L

SYFER	Syfer Part No. 0805J0500103KXTXXX	KEMET Equivalent C0805C103K5RAC
--------------	---	---

0805 J 050 0103 K X T XXX

Chip Size —————

0603	Low Profile	Hi Q
0805	0805	0505
1206	1206	1111
1210	1210	
1812		Low
2220		Inductance
2225		0612

Termination —————

J = Ag/Ni/Sn	F = Pd/Ag
Y = Polymer/Ni/Sn	J = AG/Ni/Sn
A = AG/Ni/SnPb	

Voltage —————

16 = 16V	100 = 100V	630 = 630V
025 = 25V	200 = 200V	1KO = 1kV
050 = 50V	250 = 250V	2KO = 2kV
063 = 63V	500 = 500V	3KO = 3kV

Capacitance —————

First digit = 0. Second and third digits are significant and the fourth digit signifies the number of zeros. Value does not fit model. Insert cap code letter for decimal point. e.g. 8P20 = 8.2pF 13N6 = 13.6nF

Special Requirement —————

Alpha/Numeric to denote non-std requirement

Packing —————

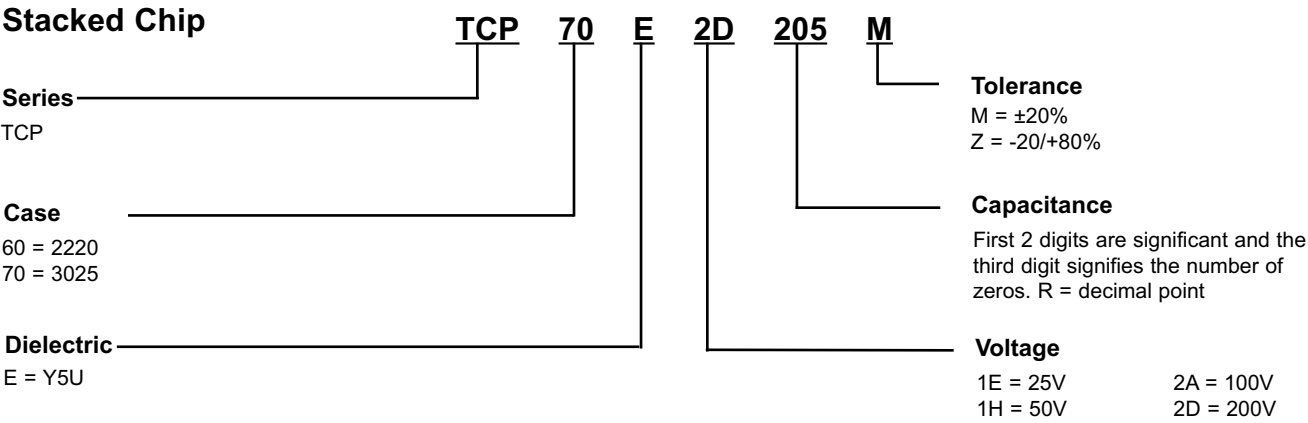
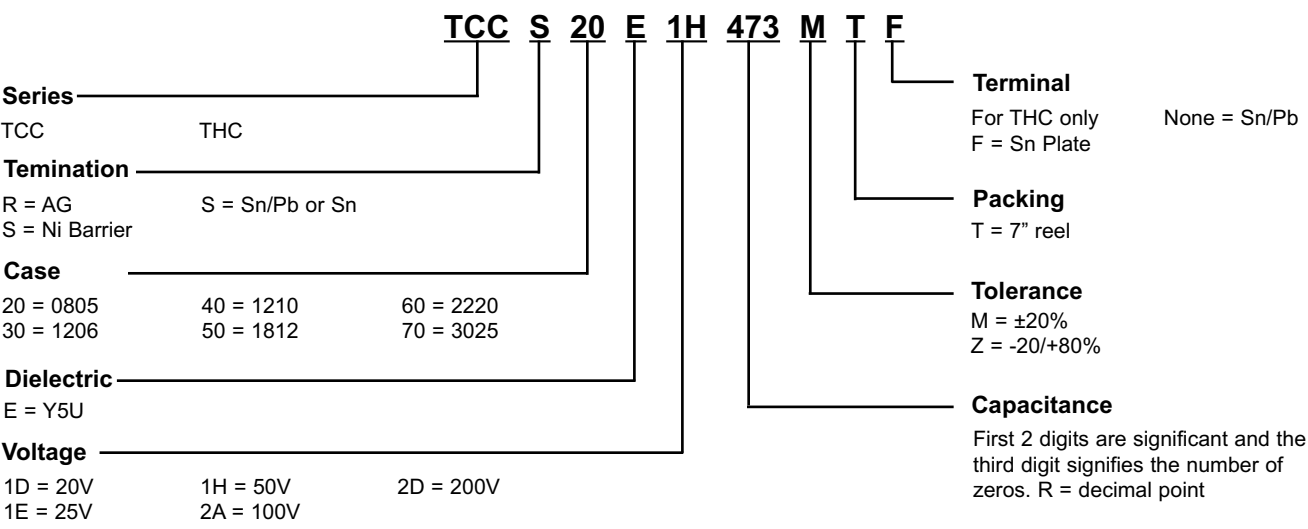
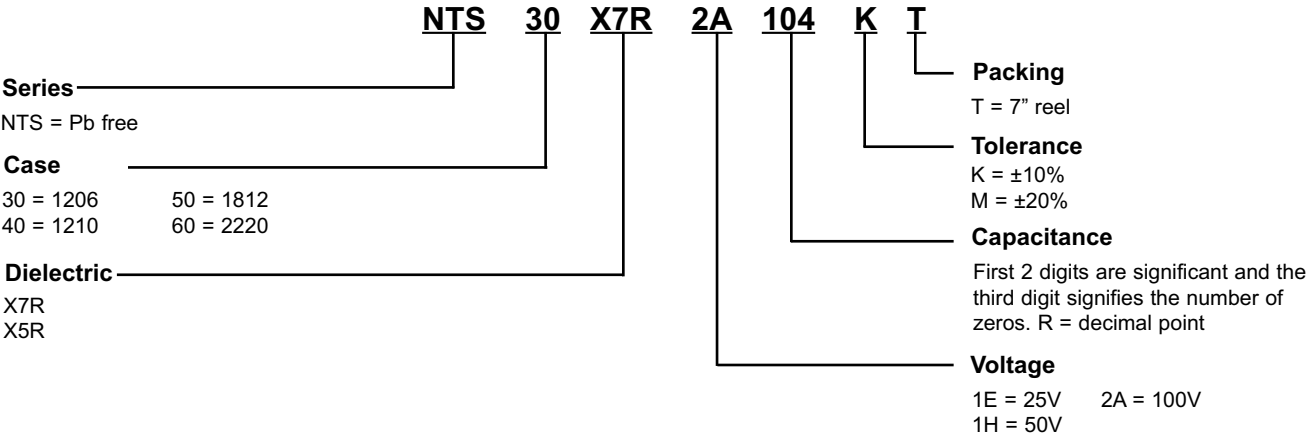
T = 7" Plastic	<u>Low profile</u>
R = 13" Plastic	B = Bulk
B = Bulk Tubs	T = Tape
C = Bulk Cassette	<u>Hi Q & Low Ind.</u>
	T = 7" Plastic
	R = 13" Plastic
	B = Bulk

Dielectric —————

C = C0G	Q = Hi Freq
X = X7R	

Tolerance —————

B = ±0.1pF	D = ±0.5pF	J = ±5%
C =	F = ±1%	K = ±10%
±0.25pF	G = ±2%	M = ±20%



VISHAY	Vishay Part No. VJ0805Y103KXAT	KEMET Equivalent C0805C103K5RAC
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General Purpose

VJ0805 Y 103 K X A T W1BC

Chip Size

VJ0402	VJ1210	VJ2220
VJ0603	VJ1808	VJ2225
VJ0805	VJ1812	
VJ1206	VJ1825	

Dielectric

A = C0G	G = X5R
Y = X7R	V = Y5V

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point

Tolerance

C = $\pm 0.25\text{pF}$	G = $\pm 2\%$	M = $\pm 20\%$
D = $\pm 0.5\text{pF}$	J = $\pm 5\%$	Z = $-20/+80\%$
F = $\pm 1\%$	K = $\pm 10\%$	

Technology

Packing

T = 7" Plastic
C = 7" Paper
R = 13" Plastic
P = 13" Paper
I = 7" Flamed Paper
O = 11 1/4" Flamed Paper
I & O for F Termination

Voltage

Y = 6.3V	X = 25V
Q = 10V	A = 50V
J = 16V	B = 100V

Termination

X = Ag/Ni/Sn
F = Pd/Ag

RuGGed Chip (3E) / Open Mode Design (OMD) / High Voltage (HV) / High Q (HQ) / Low Profile (LP) / Tip & Ring (T&R) / Film Replacement (FR)

VJ1812 Y 824 K X B A T 3E

MLCC Chip Size

HV,FR	VJ0603
HV,HQ,FR	VJ0805
3E,OMD,HV,HQ,FR	VJ1206
3E,OMD,HV,HQ,FR	VJ1210
OMD,HV,FR	VJ1808
3E,OMD,HV,FR	VJ1812
3E,HV	VJ1825
3E,HV	VJ2220
3E,HV	VJ2225
HV	VJ3640
LP	VJ9522
LP	VJ9526
LP	VJ9622
LP	VJ9626
LP	VJ9722
LP	VJ9726
LP	VJ9922
LP	VJ9926
T&R	VJ7427 = 1812
T&R	VJ9427 = 1812
T&R	VJ9174 = 1825
T&R	VJ9253 = 2225

Dielectric

A = C0G	Q = HI Q
Y = X7R	F = Y5E

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point

Process Code

3E = Rugged
4X = OMD
Add up to 3 digits for non-std products or spec requirem't

Packing

T = 7" Plastic
C = 7" Paper
R = 11 1/4" Plastic
P = 11 1/4" Paper
I = 7" Flamed Paper
O = 11 1/4" Flamed Paper

Marking

A = Unmarked

Voltage

X = 25V	P = 250V	R = 1500
A = 50V	E = 500V	F = 2000V
B = 100	L = 630V	H = 3000V
C = 200V	G = 1000V	

Termination

X = Ag/Ni/Sn
F = Pd/Ag

Tolerance

J = $\pm 5\%$
K = $\pm 10\%$
M = $\pm 20\%$

WALSIN	Walsin Part No. 0805B103K500L P	KEMET Equivalent C0805C103K5RAC
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0805 B 103 K 500 L P

Chip Size

0201	1206	<u>Low Inductance</u>
0402	1210	0612
0603	1808	0306
0805	1812	

Dielectric

N = C0G	X = X5R
B = X7R	F = Y5V

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point. 4R7 = 4.7

Tolerance

B = ±0.1pF	J = ±5%	COG: B, C, D, F, G,
C = ±0.25pF	K = ±10%	J, K (B, C for ≤ 5pf)
D = ±0.5pF	M = ±20%	(D for 5pf < cap < 10pf)
F = ±1%	Z = -20/+80%	
G = ±2%		

Packing

B = Bulk	Q = 10" Paper
C = Bulk Cassette	K = 10" Plastic
<u>Tape on Reel</u>	G = 13" Plastic
T = 7" Plastic	L = 13" Paper
P = 7" Paper	

Termination

L = Ag/Ni/Sn	N = Ag/Ni/SnPb
C = Cu/Ni/SnPb	B = Cu/Ni/SnPb

Voltage

Two significance digits followed by a number of zeros. R = decimal point.

6R3 = 6.3V	501 = 500V
500 = 50V	102 = 1000V
101 = 100V	152 = 1500V
201 = 200V	202 = 2000V
251 = 250V	302 = 3000V

Hi Q HH 18 N 1R0 B 500 L T

Type

HH = HI Q

Chip Size

18 = 0603
15 = 0402

Dielectric

N = C0G

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point.

Packing

B = Bulk	Q = 10" Paper
T = 7" Paper	G = 13" Plastic

Termination

L = Ag/Ni/Sn

Voltage

100 = 10V	250 = 25V
160 = 16V	500 = 50V

Tolerance

B = ±0.1pF	F = ±1%
C = ±0.25pF	G = ±2%
D = ±0.5pF	J = ±5%

Array Y 4C3 F 104 Z 500 C T

Type

Y = Array

Size

4C = Chips
3 = Pitch

Dielectric

N = C0G	F = Y5V
B = X7R	

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point.

Packing

B = Bulk	Q = 10" Paper
T = 7" Paper	G = 13" Plastic

Termination

L = Ag/Ni/Sn

C = Cu/Ni/Sn

Voltage

160 = 16V	500 = 50V
250 = 25V	

Tolerance

B = ±0.1pF	J = ±5%
C = ±0.25pF	K = ±10%
D = ±0.5pF	M = ±20%
F = ±1%	Z = -20/+80%
G = ±2%	



YAGEO	Yageo Part No. CC0805KRX7R9BB103	KEMET Equivalent C0805C103K5RAC
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CC 0805 K R X7R 9 B B 104

MLCC

Multilayer Ceramic Chip Capacitor

Chip Size

0402	1206
0603	1210
0805	1812

Tolerance

A = ±0.05pF	G = ±2%
B = ±0.1pF	J = ±5%
C = ±0.25pF	K = ±10%
D = ±0.5pF	M = ±20%
F = ±1%	Z = -20/+80%

Packing

R = 7" Paper
P = 13" Paper
K = 7" Plastic
F = 13" Plastic
C = Bulk Cassette

Capacitance

First 2 digits are significant and the third digit signifies the number of zeros. R = decimal point. 4R7 = 4.7

Process Code

N = Non BME
B = BME

Termination

B = Ni Barrier

Voltage

5 = 6.3V	0 = 100V
6 = 10V	A = 200V
7 = 16V	Y = 250V
8 = 25V	B = 500V
9 = 50V	

Dielectric

NPO	Y5V
X7R	X5R

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Fax: 886-2-27213129

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