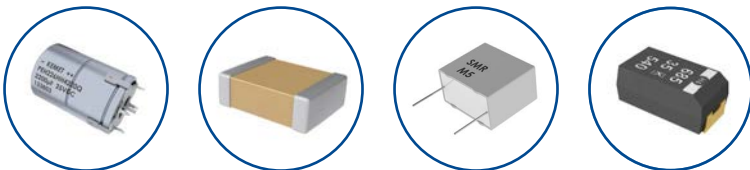
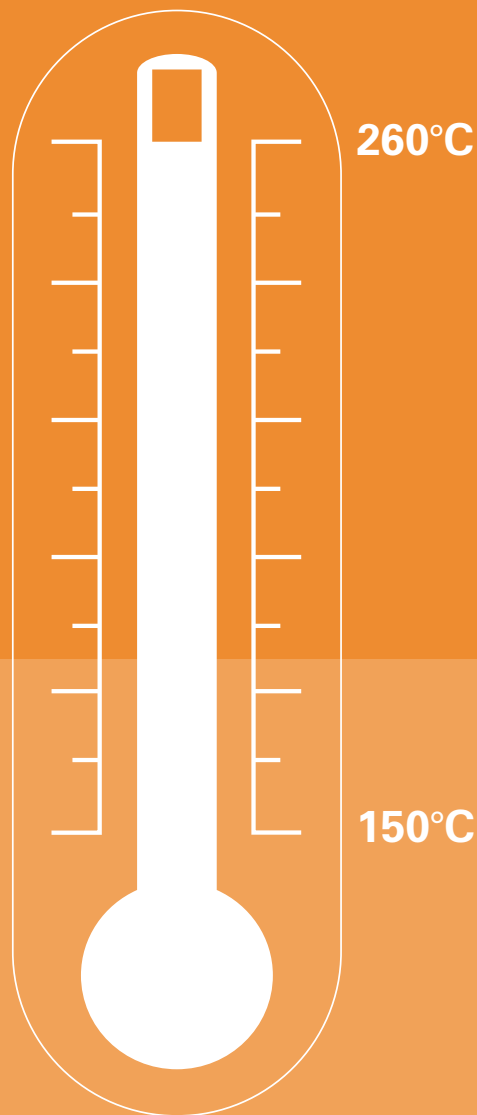

Capacitor Selection Guide

High Temperature



EASY TO DESIGN IN



Capacitor Simulation Tool

ksim.kemet.com



Made for Engineers by Engineers

engineeringcenter.com



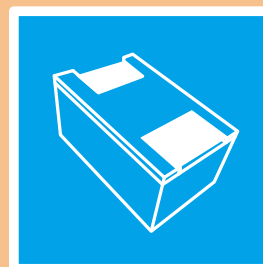
Catalogs & Technical Data



www.kemet.com/mobileapps



www.kemet.com/appguide



www.kemet.com/3DModels



COMPONENTEDGE

search.kemet.com

3D Models, Specifications, & Search

Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors.

Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

TABLE OF CONTENTS

150°C Capacitors

Aluminum Electrolytic.....	9
Axial Leads	9
Radial Crown	11
Ceramic	13
Surface Mount.....	13
Leaded	15
Film	16
Tantalum.....	19

175°C Capacitors

Ceramic	23
Tantalum.....	23

200°C Capacitors

Ceramic	27
Surface Mount.....	27
Leaded	30
Tantalum.....	35

> 200°C Capacitors

Ceramic	39
Tantalum.....	40

> 200°C Capacitors

200°C Capacitors

175°C Capacitors

150°C Capacitors

Aluminum Electrolytic – Axial Leads

PEG127 High Ripple Current & Small Case Size 150°C, 25 – 63 VDC

Capacitance Range: 33 to 1,300 μF • Temperature Range: -40°C to +150°C

Lifetime: 1,600 Hours

www.kemet.com/PEG127



PEG127	H	A	318	0	Q	T1
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (μF)	Version	Capacitance Tolerance	Packaging
Axial Aluminum Electrolytic	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard	Q = -10/+30%	See Ordering Options Table

Case Size	Voltage		
	25	40	63
10 x 20	180 μF	110 μF	33 μF
10 x 29	360 μF	220 μF	68 μF
13 x 20	470 μF	270 μF	80 μF
13 x 29	900 μF	520 μF	160 μF
13 x 37	1.3 mF	750 μF	230 μF

PEG220 Very High Ripple Current (up to 21 A) & Vibration Resistant 150°C, 25 – 63 VDC

Capacitance Range: 250 to 4,700 μF • Temperature Range: -40°C to +150°C

Lifetime: 2,000 Hours

www.kemet.com/PEG220



PEG220	H	F	415	0	Q	E1
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (μF)	Version	Capacitance Tolerance	Packaging
Axial Aluminum Electrolytic	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard	Q = -10/+30% M = $\pm 20\%$	E1 = Bulk

Case Size	Voltage		
	25	40	63
16 x 26.7	1.5 mF	800 μF	250 μF
16 x 34.7	2.2 mF	1.2 mF	370 μF
18 x 26.7	2 mF	1.2 mF	380 μF
18 x 34.7	3 mF	1.7 mF	560 μF
18 x 38.7	3.4 mF	2 mF	640 μF
20 x 26.7	2.2 mF	1.5 mF	470 μF
20 x 34.7	3.3 mF	2.2 mF	680 μF
20 x 42.7	4.7 mF	2.7 mF	900 μF

Aluminum Electrolytic – Axial Leads (cont.)

PEG225 Extremely High Ripple Current (up to 28 A) 125°C & 150°C, 25 – 63 VDC

Capacitance Range: 470 to 6,300 μ F • Temperature Range: -40°C to +125°C (at Rated Voltage) & -40°C to +150°C (at Derated Voltage)

Lifetime: 2,000 Hours at 150°C (Reduced Voltage)

www.kemet.com/PEG225



PEG225	H	F	422	0	M	E1
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (μ F)	Version	Capacitance Tolerance	Packaging
Axial Aluminum Electrolytic	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard	Q = -10/+30% M = $\pm$ 20%	E1 = Bulk

Case Size	Voltage		
	25	40	63
16 x 26.7	2.2 mF	1.2 mF	470 μ F
16 x 34.7	3 mF	1.8 mF	680 μ F
18 x 26.7	2.7 mF	1.6 mF	720 μ F
18 x 34.7	4 mF	2.2 mF	1 mF
18 x 38.7	4.6 mF	2.6 mF	1.2 mF
20 x 26.7	3.6 mF	2 mF	900 μ F
20 x 34.7	4.8 mF	3 mF	1.4 mF
20 x 42.7	6.3 mF	3.9 mF	1.8 mF

PEG226 Extremely High Ripple Current (up to 28 A) 150°C, 25 – 63 VDC

Capacitance Range: 250 to 4,700 μ F • Temperature Range: -40°C to +150°C

Lifetime: 2,000 Hours

www.kemet.com/PEG226



PEG226	H	F	415	0	M	E1
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (μ F)	Version	Capacitance Tolerance	Packaging
Axial Aluminum Electrolytic	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard	Q = -10/+30% M = $\pm$ 20%	E1 = Bulk

Case Size	Voltage		
	25	40	63
16 x 26.7	1.5 mF	800 μ F	250 μ F
16 x 34.7	2.2 mF	1.2 mF	370 μ F
18 x 26.7	2 mF	1.2 mF	380 μ F
18 x 34.7	3 mF	1.8 mF	560 μ F
18 x 38.7	3.4 mF	2 mF	640 μ F
20 x 26.7	2.2 mF	1.5 mF	470 μ F
20 x 34.7	3.3 mF	2.2 mF	680 μ F
20 x 42.7	4.7 mF	2.7 mF	900 μ F

Aluminum Electrolytic – Radial Crown

PEH220 Very High Ripple Current (up to 21 A) & Vibration Resistant, 150°C, 25 – 63 VDC

Capacitance Range: 250 to 4,700 μ F • Temperature Range: -40°C to +150°C

Lifetime: 2,000 Hours

www.kemet.com/PEH220



PEH220	H	F	415	0	M	E4
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (pF)	Version	Capacitance Tolerance	Packaging
Radial Crown Aluminum Electrolytic with Soldering Star Termination	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard (without shrink tape)	Q = -10 +30% M = $\pm$ 20%	E4 = Tray

Case Size	Voltage		
	25	40	63
16 x 27.7	1.5 mF	800 μ F	250 μ F
16 x 35.7	2.2 mF	1.2 mF	370 μ F
18 x 27.7	2 mF	1.2 mF	380 μ F
18 x 35.7	3 mF	1.7 mF	560 μ F
18 x 39.7	3.4 mF	2 mF	640 μ F
20 x 27.7	2.2 mF	1.5 mF	470 μ F
20 x 35.7	3.3 mF	2.2 mF	680 μ F
20 x 43.7	4.7 mF	2.7 mF	900 μ F

PEH225 Extremely High Ripple Current (up to 28 A) 125°C & 150°C, 25 – 63 VDC

Capacitance Range: 470 to 6,300 μ F • Temperature Range: -40°C to +125°C (at Rated Voltage) & -40°C to +150°C (at Derated Voltage)

Lifetime: 2,000 Hours at 150°C (Reduced Voltage)

www.kemet.com/PEH225



PEH225	H	F	422	0	M	E4
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (pF)	Version	Capacitance Tolerance	Packaging
Radial Crown Aluminum Electrolytic with Soldering Star Termination	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard (without shrink tape)	Q = -10 +30% M = $\pm$ 20%	E4 = Tray

Case Size	Voltage		
	25	40	63
16 x 27.7	2.2 mF	1.2 mF	470 μ F
16 x 35.7	3 mF	1.8 mF	680 μ F
18 x 27.7	2.7 mF	1.6 mF	720 μ F
18 x 35.7	4 mF	2.2 mF	1 mF
18 x 39.7	4.6 mF	2.6 mF	1.2 mF
20 x 27.7	3.6 mF	2 mF	900 μ F
20 x 35.7	4.8 mF	3 mF	1.4 mF
20 x 43.7	6.3 mF	3.9 mF	1.8 mF

Aluminum Electrolytic – Radial Crown (cont.)

PEH226 Extremely High Ripple Current (up to 28 A) 150°C, 25 – 63 VDC

Capacitance Range: 250 to 4,700 μ F • Temperature Range: -40°C to +150°C

Lifetime: 2,000 Hours

www.kemet.com/PEH226



PEH226	H	F	415	0	M	E4
Series	Rated Voltage (VDC)	Size Code	Capacitance Code (pF)	Version	Capacitance Tolerance	Packaging
Radial Crown Aluminum Electrolytic with Soldering Star Termination	H = 25 K = 40 M = 63	See Dimension Table	The last two digits represent significant figures. The first digit indicates the total number digits.	0 = Standard (without shrink tape)	Q = -10 +30% M = $\pm$ 20%	E4 = Tray

Case Size	Voltage		
	25	40	63
16 x 27.7	1.5 mF	800 μ F	250 μ F
16 x 35.7	2.2 mF	1.2 mF	370 μ F
18 x 27.7	2 mF	1.2 mF	380 μ F
18 x 35.7	3 mF	1.8 mF	560 μ F
18 x 39.7	3.4 mF	2 mF	640 μ F
20 x 27.7	2.2 mF	1.5 mF	470 μ F
20 x 35.7	3.3 mF	2.2 mF	680 μ F
20 x 43.7	4.7 mF	2.7 mF	900 μ F

Ceramic – Surface Mount

X8L Dielectric, 6.3 – 50 VDC (Commercial & Automotive Grade)

Capacitance Range: 0.012 μ F to 10 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/X8L-Auto



C	1210	X	106	K	8	N	A	C	TU
Ceramic	Case Size (L" x W")	Specification/ Series¹	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish²	Packaging/ Grade (C-Spec)
	0402 0603 0805 1206 1210	C = Standard X = Flexible termination	Two significant digits + number of zeros	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	9 = 6.3 8 = 10 4 = 16 3 = 25 5 = 50	N = X8L	A = N/A	C = 100% Matte Sn L = SnPb (5% Pb minimum)	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage				
	6.3	10	16	25	50
0402	0.056 μ F – 0.1 μ F	0.012 μ F – 0.1 μ F	0.027 μ F – 0.047 μ F	0.012 μ F – 0.022 μ F	
0603		0.047 μ F – 0.22 μ F	0.18 μ F – 0.22 μ F	0.047 μ F – 0.15 μ F	0.047 μ F
0805		0.15 μ F – 1 μ F	0.82 μ F – 1 μ F	0.15 μ F – 0.68 μ F	0.15 μ F – 0.22 μ F
1206		0.47 μ F – 4.7 μ F	2.7 μ F – 4.7 μ F	0.47 μ F – 2.2 μ F	0.47 μ F
1210		0.39 μ F – 10 μ F	5.6 μ F – 10 μ F	0.39 μ F – 4.7 μ F	0.39 μ F – 1 μ F

Ultra-Stable X8R Dielectric, 10 – 100 VDC (Commercial & Automotive Grade)

Capacitance Range: 10 pF to 0.22 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/X8R-Auto



C	1210	C	184	K	3	H	A	C	AUTO
Ceramic	Case Size (L" x W")	Specification/ Series¹	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish²	Packaging/ Grade (C-Spec)
	0402 0603 0805 1206 1210 1812	C = Standard	Two significant digits + number of zeros	B = $\pm$ 0.10 pF C = $\pm$ 0.25 pF D = $\pm$ 0.5 pF F = $\pm$ 1% G = $\pm$ 2% J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	8 = 10 4 = 16 3 = 25 5 = 50 1 = 100	H = Ultra Stable X8R	A = N/A	C = 100% Matte Sn L = SnPb (5% Pb minimum)	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage				
	10	16	25	50	100
0402	10 pF – 1.5 nF	10 pF – 1.5 nF	10 pF – 1.5 nF	10 pF – 1.5 nF	100 pF – 1 nF
0603	10 pF – 0.01 μ F	10 pF – 0.01 μ F	10 pF – 0.01 μ F	10 pF – 6.8 nF	10 pF – 4.7 nF
0805	10 pF – 0.033 μ F	10 pF – 0.033 μ F	10 pF – 0.033 μ F	10 pF – 0.022 μ F	10 pF – 0.015 μ F
1206	10 pF – 0.1 μ F	10 pF – 0.1 μ F	10 pF – 0.1 μ F	10 pF – 0.082 μ F	10 pF – 0.056 μ F
1210	10 pF – 0.18 μ F	10 pF – 0.18 μ F	10 pF – 0.18 μ F	10 pF – 0.15 μ F	10 pF – 0.1 μ F
1812				470 pF – 0.22 μ F	470 pF – 0.15 μ F

Ceramic – Surface Mount (cont.)

Flexible Termination System (FT-CAP), Ultra-Stable X8R Dielectric, 10 – 100 VDC (Commercial & Automotive Grade)

Capacitance Range: 0.5 pF to 0.22 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/FTCap-X8R



C	1206	X	104	J	3	H	A	C	AUTO
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish ¹	Packaging/ Grade (C-Spec)
	0603 0805 1206 1210 1812	X = Flexible Termination	Two significant digits + number of zeros.	B = ± 0.10 pF C = ± 0.25 pF D = ± 0.5 pF F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	8 = 10 4 = 16 3 = 25 5 = 50 1 = 100	H = Ultra-Stable X8R	A = N/A	C = 100% Matte Sn L = SnPb (5% Pb minimum)	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage				
	10	16	25	50	100
0603	0.5 pF – 0.01 μ F	0.5 pF – 0.01 μ F	0.5 pF – 0.01 μ F	0.5 pF – 6.8 nF	0.5 pF – 4.7 nF
0805	0.5 pF – 0.033 μ F	0.5 pF – 0.033 μ F	0.5 pF – 0.033 μ F	0.5 pF – 0.022 μ F	0.5 pF – 0.015 μ F
1206	1 pF – 0.1 μ F	1 pF – 0.1 μ F	1 pF – 0.1 μ F	1 pF – 0.082 μ F	1 pF – 0.056 μ F
1210	1 pF – 0.18 μ F	1 pF – 0.18 μ F	1 pF – 0.18 μ F	1 pF – 0.15 μ F	1 pF – 0.1 μ F
1812				470 pF – 0.22 μ F	470 pF – 0.15 μ F

KPS HT, X8L Dielectric, 10 – 50 VDC (Commercial & Automotive Grade)

Capacitance Range: 470 nF to 47 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/KPS-X8L



C	2220	C	476	M	8	N	2	C	7186
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	FailureRate/ Design	Leadframe Finish ²	Packaging/Grade (C-Spec)
	1210 1812 2220	C = Standard	Two significant digits + number of zeros.	K = $\pm 10\%$ M = $\pm 20\%$	8 = 10 4 = 16 3 = 25 5 = 50	N = X8L	1 = KPS Single Chip Stack 2 = KPS Double Chip Stack	C = 100% Matte Sn	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage			
	10	16	25	50
1210-1	0.47 μ F – 4.7 μ F	0.47 μ F – 4.7 μ F	0.47 μ F – 4.7 μ F	0.47 μ F – 1 μ F
1210-2	1 μ F – 10 μ F	1 μ F – 10 μ F	1 μ F – 10 μ F	1 μ F – 2.2 μ F
1812-2		4.7 μ F	4.7 μ F	4.7 μ F
2220-1	2.2 μ F – 22 μ F	2.2 μ F – 10 μ F	2.2 μ F – 10 μ F	
2220-2	4.7 μ F – 47 μ F	4.7 μ F – 22 μ F	4.7 μ F – 22 μ F	

Ceramic – Ledged

Aximax 400, Axial, Conformally Coated, X8L Dielectric, 25 – 50 VDC (Commercial & Automotive Grade)

Capacitance Range: 0.1 to 2.2 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/Aximax-X8L



C	410	C	105	K	3	N	5	T	A	7200
Ceramic	Style /Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish ²	Failure Rate	Packaging/Grade (C-Spec)
	410 430	C = Standard	Two significant digits and number of zeros	J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	3 = 25 V 5 = 50 V	N = X8L	5 = Multilayer	T = 100% Matte Sn H = SnPb (60/40)	A = N/A	Blank = Bulk 7200 = 12" reel 7293 = Ammo pack 9170 = Automotive grade 9170 7200 = Auto 12" reel 9170 7293 = Auto ammo pack

Case Size	Voltage	
	25	50
C410 (2.41 x 4.32)	0.1 μ F – 0.68 μ F	0.1 μ F – 0.22 μ F
C430 (3.81 x 6.1)	0.82 μ F – 2.2 μ F	0.33 μ F – 0.47 μ F

Aximax 400, Axial, Conformally Coated, X8R Dielectric, 50 – 200 VDC (Commercial & Automotive Grade)

Capacitance Range: 1 pF to 0.082 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/Aximax-X8R



C	410	C	472	J	5	H	5	T	A	7200
Ceramic	Style/ Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish ²	Failure Rate	Packaging/Grade (C-Spec)
	410 430	C = Standard	Two significant digits and number of zeros	B = ± 0.1 pF C = ± 0.25 pF D = ± 0.5 pF F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	5 = 50 1 = 100 2 = 200	H = Ultra-Stable X8R	5 = Multilayer	T = 100% Matte Sn H = SnPb (60/40)	A = N/A	Blank = Bulk 7200 = 12" reel 7293 = Ammo pack 9170 = Automotive grade 9170 7200 = Auto 12" reel 9170 7293 = Auto ammo pack

Case Size	Voltage		
	50	100	200
C410 (2.41 x 4.32)	1 pF – 0.022 μ F	1 pF – 0.015 μ F	1 pF – 1 nF
C430 (3.81 x 6.1)	100 pF – 0.082 μ F	100 pF – 0.047 μ F	100 pF – 2.7 nF

Ceramic – Ledged (cont.)

Goldmax 300, Radial, Conformally Coated, X8L Dielectric, 25 – 50 VDC (Commercial & Automotive Grade)

Capacitance Range: 0.15 to 4.7 μF • Temperature Range: -55°C to +150°C

www.kemet.com/Goldmax-X8L



C	320	C	475	K	3	N	5	T	A	7301
Ceramic	Style/Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish	Failure Rate	Packaging (C-Spec)
	315 323 316 324 317 325 318 326 320 327 321 328 322	C = Standard	First two digits represent significant figures. Third digit specifies number of zeros.	J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	3 = 25 5 = 50	N = X8L	5 = Multilayer	T = 100% Matte Sn H = SnPb (60/40)	A = N/A	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage	
	25	50
C31x	0.15 μF – 0.68 μF	0.15 μF – 0.22 μF
C32x	0.15 μF – 4.7 μF	0.15 μF – 1 μF

Goldmax 300, Radial, Conformally Coated, Ultra-Stable X8R Dielectric, 250 – 200 VDC (Commercial & Automotive Grade)

Capacitance Range: 1 pF to 0.22 μF • Temperature Range: -55°C to +150°C

www.kemet.com/Goldmax-X8R



C	320	C	104	J	5	H	5	T	A	7301
Ceramic	Style/Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish	Failure Rate	Packaging (C-Spec)
	315 325 316 326 317 327 318 328 320 330 321 331 322 333 323 335 324 336	C = Standard	First two digits represent significant figures. Third digit specifies number of zeros.	B = $\pm 0.1\%$ C = $\pm 0.25\%$ D = $\pm 0.5\%$ F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	3 = 25 5 = 50 1 = 100 2 = 200	H = Ultra-Stable X8R	5 = Multilayer	T = 100% Matte Sn H = SnPb (60/40)	A = N/A	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage			
	25	50	100	200
C31x	1 pF – 0.033 μF	1 pF – 0.022 μF	1 pF – 0.015 μF	1 pF – 8.2 nF
C32x	10 pF – 0.18 μF	10 pF – 0.15 μF	10 pF – 0.1 μF	10 pF – 0.047 μF
C33x	0.18 μF – 0.22 μF	0.18 μF – 0.22 μF	0.12 μF – 0.15 μF	0.056 μF – 0.1 μF

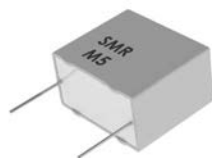
Film

SMR Polyphenylene Sulfide, 150°C, 5.0 – 27.5 mm Lead Spacing, 50 – 400 VDC/30 – 200 VAC

Capacitance Range: 0.001 to 22 μ F • Temperature Range: -55°C to +150°C

www.kemet.com/SMR

Legacy Part Number System



SMR	5	104	K	50	J01	L4	BULK
Series	Lead Spacing (mm)	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Size Code	Lead Length	Packaging
Metallized PPS	5 = 5.0 7.5 = 7.5 10 = 10.0 15 = 15.0 22.5 = 22.5 27.5 = 27.5	First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros.	H = $\pm 2.5\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	50 = 50 63 = 63 100 = 100 250 = 250 400 = 400	See Dimension Table	Letter "L" followed by lead length in mm	See Ordering Options Table

New KEMET Part Number System

F	211	J	F	104	K	050	C
Capacitor Class	Series	Lead Spacing (mm)	Size Code	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Packaging
F = Film	Metallized PPS	J = 5.0 K = 7.5 A = 10.0 B = 15.0 D = 22.5 F = 27.5	See Dimension Table	First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros.	R = $\pm 2.5\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	050 = 50 063 = 63 100 = 100 250 = 250 400 = 400	See Ordering Options Table

Case Size	Voltage (VDC/VAC)				
	50/30	63/40	100/63	250/160	400/200
5-7.2x6.5x2.5	1 nF – 120 nF	1 nF – 68 nF	1 nF – 39 nF	1 nF – 12 nF	1 nF – 3.9 nF
5-7.2x8x3.5	150 nF – 270 nF	82 nF – 150 nF	47 nF	15 nF – 27 nF	4.7 nF – 12 nF
5-7.2x9x4.5	330 nF – 390 nF	180 nF – 220 nF	56 nF – 100 nF	33 nF – 47 nF	15 nF – 18 nF
5-7.2x10x5	470 nF – 560 nF	270 nF – 330 nF	120 nF	56 nF	22 nF – 27 nF
5-7.2x11x6	680 nF – 820 nF	390 nF – 470 nF	150 nF – 180 nF	68 nF – 82 nF	33 nF – 39 nF
5-7.2x13x7.2	1 μ F – 1.2 μ F	560 nF – 680 nF	220 nF – 330 nF	100 nF – 120 nF	47 nF – 56 nF
7.5-10x8x4	1 nF – 390 nF	1 nF – 270 nF	1 nF – 120 nF	1 nF – 47 nF	1 nF – 22 nF
7.5-10x11x5	470 nF – 820 nF	330 nF – 560 nF	150 nF – 270 nF	56 nF – 100 nF	27 nF – 47 nF
7.5-10.5x12x6	1 μ F – 1.2 μ F	680 nF – 820 nF	330 nF – 470 nF	120 nF – 150 nF	56 nF – 68 nF
7.5-13x9x4	2.7 nF – 680 nF	2.7 nF – 390 nF	2.7 nF – 220 nF	2.7 nF – 68 nF	2.7 nF – 33 nF
7.5-13x10.5x4.5	820 nF	470 nF – 560 nF	270 nF	82 nF – 100 nF	39 nF
7.5-13x11x5	1 μ F – 1.2 μ F	680 nF	330 nF – 390 nF	120 nF	47 nF – 56 nF
7.5-13x12x6	1.5 μ F – 1.8 μ F	820 nF – 1 μ F	470 nF – 560 nF	150 nF – 180 nF	68 nF – 82 nF
7.5-18x10.5x5.5		680 nF – 820 nF	270 nF – 470 nF	100 nF – 150 nF	47 nF – 68 nF
7.5-18x12.5x5.5		1 μ F	560 nF	180 nF	82 nF
7.5-18x12.5x6.5	2.2 μ F	1.2 μ F – 1.5 μ F	680 nF	220 nF	100 nF
7.5-18x14.5x7.5	2.7 μ F – 3.3 μ F	1.8 μ F	820 nF – 1 μ F	270 nF – 330 nF	120 nF – 150 nF
7.5-18x15x8	3.9 μ F	2.2 μ F	1.2 μ F	390 nF	180 nF
7.5-18x16x8.5		2.7 μ F	1.5 μ F	470 nF	220 nF
7.5-18x17.5x9.5	4.7 μ F – 5.6 μ F	3.3 μ F	1.8 μ F	560 nF	270 nF
10-13x9x4	2.7 nF – 680 nF	2.7 nF – 390 nF	2.7 nF – 220 nF	2.7 nF – 68 nF	2.7 nF – 33 nF
10-13x10.5x4.5	820 nF	470 nF – 560 nF	270 nF	82 nF – 100 nF	39 nF
10-13x11x5	1 μ F – 1.2 μ F	680 nF	330 nF – 390 nF	120 nF	47 nF – 56 nF
10-13x12x6	1.5 μ F – 1.8 μ F	820 nF – 1 μ F	470 nF – 560 nF	150 nF – 180 nF	68 nF – 82 nF

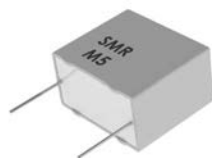
Film (cont.)

SMR Polyphenylene Sulfide, 150°C, 5.0 – 27.5 mm Lead Spacing, 50 – 400 VDC/30 – 200 VAC (cont.)

Capacitance Range: 0.001 to 22 µF • Temperature Range: -55°C to +150°C

www.kemet.com/SMR

Legacy Part Number System



SMR	5	104	K	50	J01	L4	BULK
Series	Lead Spacing (mm)	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Size Code	Lead Length	Packaging
Metallized PPS	5 = 5.0 7.5 = 7.5 10 = 10.0 15 = 15.0 22.5 = 22.5 27.5 = 27.5	First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros.	H = ±2.5% J = ±5% K = ±10% M = ±20%	50 = 50 63 = 63 100 = 100 250 = 250 400 = 400	See Dimension Table	Letter "L" followed by lead length in mm	See Ordering Options Table

New KEMET Part Number System

F	211	J	F	104	K	050	C
Capacitor Class	Series	Lead Spacing (mm)	Size Code	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Packaging
F = Film	Metallized PPS	J = 5.0 K = 7.5 A = 10.0 B = 15.0 D = 22.5 F = 27.5	See Dimension Table	First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros.	R = ±2.5% J = ±5% K = ±10% M = ±20%	050 = 50 063 = 63 100 = 100 250 = 250 400 = 400	See Ordering Options Table

Case Size	Voltage				
	50/30	63/40	100/63	250/160	400/200
15-18x10.5x5.5		680 nF – 820 nF	270 nF – 470 nF	100 nF – 150 nF	47 nF – 68 nF
15-18x12.5x5.5		1 µF	560 nF	180 nF	82 nF
15-18x12.5x6.5	2.2 µF	1.2 µF – 1.5 µF	680 nF	220 nF	100 nF
15-18x14.5x7.5	2.7 µF – 3.3 µF	1.8 µF	820 nF – 1 µF	270 nF – 330 nF	120 nF – 150 nF
15-18x15x8	3.9 µF	2.2 µF	1.2 µF	390 nF	180 nF
15-18x16x8.5		2.7 µF	1.5 µF	470 nF	220 nF
15-18x17.5x9.5	4.7 µF – 5.6 µF	3.3 µF	1.8 µF	560 nF	270 nF
22.5-26x14.5x6.5		2.7 µF	1.5 µF	470 nF	150 nF – 220 nF
22.5-26x16x8		3.9 µF	2.2 µF		330 nF
22.5-26x16.5x7		3.3 µF	1.8 µF	560 nF – 680 nF	270 nF
22.5-26x18.5x9	6.8 µF – 8.2 µF	4.7 µF – 5.6 µF	2.7 µF	820 nF – 1 µF	390 nF – 470 nF
22.5-26x19x10.5	10 µF	6.8 µF	3.3 µF – 3.9 µF	1.2 µF	560 nF
22.5-26x21.5x11	12 µF	8.2 µF	4.7 µF	1.5 µF	680 nF
27.5-31.5x20.5x10.5	15 µF			1.5 µF – 1.8 µF	470 nF – 680 nF
27.5-31.5x22.5x11.5	18 µF	10 µF	5.6 µF	2.2 µF	820 nF – 1 µF
27.5-31.5x24.5x14.5	22 µF	12 µF – 15 µF	6.8 µF – 8.2 µF	2.7 µF	1.2 µF
27.5-31.5x28x17.5		18 µF – 22 µF	10 µF – 12 µF	3.3 µF – 3.9 µF	1.5 µF – 1.8 µF

Tantalum

T498 Automotive Grade MnO₂, 4 – 50 V

Capacitance Range: 0.33 to 220 µF • Temperature Range: -55°C to +150°C

www.kemet.com/T498



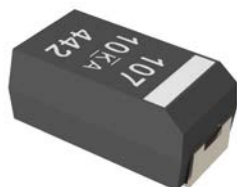
T	498	X	227	M	010	A	T	E500	
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/Design	Termination Finish	ESR	Packaging (C-Spec)
T = Tantalum	High Temperature 150°C	A B C D X	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	004 = 4 006 = 6.3 010 = 10 016 = 16 020 = 20 025 = 25 035 = 35 050 = 50	A = N/A	T = 100% Matte tin (Sn)-plated* G = Gold-plated H = Standard solder coated (SnPb 5% Pb minimum)	E = ESR Last three digits specify ESR in mΩ (500 = 500 mΩ)	Blank = 7" reel 7280 = 13" reel

Case Size	Voltage							
	4	6.3	10	16	20	25	35	50
A/3216 – 18	6.8 µF – 15 µF	2.2 µF – 10 µF	1.5 µF – 10 µF	1 µF – 6.8 µF	680 nF – 1.5 µF	470 nF – 1 µF	100 nF – 1 µF	100 nF
B/3528 – 21	10 µF – 33 µF	6.8 µF – 33 µF	4.7 µF – 22 µF	3.3 µF – 10 µF	2.2 µF – 4.7 µF	1.5 µF – 2.2 µF	470 nF – 1 µF	150 nF – 330 nF
C/6032 – 28	22 µF – 68 µF	15 µF – 68 µF	10 µF – 47 µF	6.8 µF – 47 µF	4.7 µF – 15 µF	3.3 µF – 10 µF	1.5 µF – 4.7 µF	470 nF – 1 µF
D/7343 – 31	68 µF – 150 µF	47 µF – 150 µF	33 µF – 100 µF	22 µF – 68 µF	15 µF – 33 µF	6.8 µF – 33 µF	4.7 µF – 22 µF	1.5 µF – 10 µF
X/7343 – 43			150 µF – 220 µF	100 µF			15 µF – 47 µF	6.8 µF – 10 µF

T599 Automotive Grade Polymer, 35 V

Capacitance Range: 22 to 33 µF • Temperature Range: -55°C to +150°C

www.kemet.com/T599



T	59X	D	107	M	010	A	T	E025
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/Design	Termination Finish	ESR
T = Tantalum	591 = 500 Hours load humidity 598 = AEC-Q200 qualified (125°C) 599 = AEC-Q200 qualified (150°C)	B D V X	First two digits represent significant figures. Third digit specifies number of zeros.	M = ±20%	2R5 = 2.5 006 = 6.3 010 = 10 016 = 16 020 = 20 025 = 25 035 = 35 050 = 50	A = N/A	T = 100% Tin (Sn)	Maximum ESR in mΩ, 025 = 25 mΩ

Case Size	Voltage
	35
X/7343 – 43	33 µF

> 200°C Capacitors

200°C Capacitors

175°C Capacitors

150°C Capacitors

175°C Capacitors

Ceramic

High Temperature X7R Dielectric, 16 – 200 VDC

Capacitance Range: 2.7 nF to 3.3 µF • Temperature Range: -55°C to +175°C

www.kemet.com/175-X7R



C	1210	R	225	K	3	R	A	C	T050
Ceramic	Case Size ¹ (L" x W")	Specification/ Series ¹	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish	Packaging/Grade (C-Spec) ²
	0402 0603 0805 1206 1210 1812	G = 175°C with standard termination R = 175°C w/ Flexible termination	First two digits represent significant figures. Third digit specifies number of zeros.	J = ±5% K = ±10% M = ±20%	4 = 16 3 = 25 5 = 50 1 = 100 2 = 200	R = X7R	A = N/A	C = 100% Matte Sn	Blank = Bulk 7292 = Waffle pack/tray TU = 7" reel – unmarked (full reel quantity) T050 = 50 pieces/ 7" reel – unmarked T100 = 100 pieces/ 7" reel – unmarked T250 = 250 pieces/ 7" reel – unmarked T500 = 500 pieces/ 7" reel – unmarked T1K0 = 1,000 pieces/ reel – unmarked

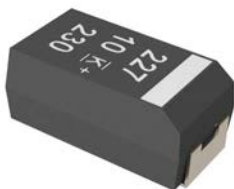
Case Size	Voltage				
	16	25	50	100	200
0402	2.7 nF – 0.047 µF	2.7 nF – 0.022 µF	2.7 nF – 0.01 µF		
0603		0.018 µF – 0.15 µF	0.018 µF – 0.1 µF		
0805		0.047 µF – 0.68 µF	0.047 µF – 0.27 µF		
1206		0.1 µF – 1 µF	0.1 µF – 0.47 µF		
1210		0.18 µF – 2.2 µF	0.18 µF – 1 µF		
1812		0.056 µF – 3.3 µF	0.056 µF – 1.5 µF	0.056 µF – 0.1 µF	0.056 µF – 0.1 µF

Tantalum

T499 Automotive Grade MnO₂, 6.3 – 50 V

Capacitance Range: 0.15 to 220 µF • Temperature Range: -55°C to +175°C

www.kemet.com/T499



T	499	X	227	M	010	A	T	E500	
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/ Design	Termination Finish	ESR	Packaging (C-Spec)
T = Tantalum	High Temperature 175°C	A B C D X	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	006 = 6.3 010 = 10 016 = 16 020 = 20 025 = 25 035 = 35 050 = 50	A = N/A	T = 100% Matte tin (Sn)-plated G = Gold-plated H = Standard solder coated (SnPb 5% Pb minimum)	E = ESR Last three digits specify ESR in mΩ (500 = 500 mΩ)	Blank = 7" reel 7280 = 13" reel 7027 = Moisture barrier bag

Case Size	Voltage						
	6.3	10	16	20	25	35	50
A/3216 – 18		1.5 µF – 6.8 µF	1 µF – 6.8 µF	680 nF – 1.5 µF	470 nF – 1.5 µF	150 nF – 1 µF	
B/3528 – 21	6.8 µF – 33 µF	4.7 µF – 22 µF	3.3 µF – 10 µF	2.2 µF – 4.7 µF	2.2 µF	470 nF – 1 µF	
C/6032 – 28	22 µF – 68 µF	10 µF – 33 µF	6.8 µF – 22 µF	4.7 µF – 15 µF	3.3 µF – 10 µF	1.5 µF – 4.7 µF	
D/7343 – 31	47 µF – 100 µF	33 µF – 100 µF	22 µF – 47 µF	15 µF – 22 µF	6.8 µF – 33 µF	6.8 µF – 10 µF	3.3 µF – 10 µF
X/7343 – 43		220 µF	100 µF			22 µF – 33 µF	

> 200°C Capacitors

200°C Capacitors

175°C Capacitors

150°C Capacitors

Ceramic – Surface Mount

High Temperature C0G Dielectric, 10 – 200 VDC

Capacitance Range: 0.5 pF to 0.47 μ F • Temperature Range: –55°C to +200°C

www.kemet.com/HT-C0G



C	1210	H	124	J	5	G	A	C	TU
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Voltage	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/ Grade (C-Spec)
	0402 0603 0805 1206 1210 1812 2220	H = High temperature (200°C)	Two significant digits + number of zeros. Use 9 for 1.0 – 9.9 pF Use 8 for 0.5 – 0.99 pF e.g., 2.2 pF = 229 e.g., 0.5 pF = 508	B = $\pm$ 0.10 pF C = $\pm$ 0.25 pF D = $\pm$ 0.5 pF F = $\pm$ 1% G = $\pm$ 2% J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	8 = 10 V 4 = 16 V 3 = 25 V 5 = 50 V 1 = 100 V 2 = 200 V	G = C0G	A = N/A	C = 100% Matte Sn L = SnPb (5% Pb minimum) E = Gold (Au) 1.97 – 11.8 μ in F = Gold (Au) 30 – 50 μ in G = Gold (Au) 100 μ in minimum	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage					
	10	16	25	50	100	200
0402	0.5 pF – 1.5 nF	0.5 pF – 1.5 nF	0.5 pF – 1.5 nF	0.5 pF – 1.5 nF	100 pF – 1 nF	
0603	0.5 pF – 0.01 μ F	0.5 pF – 0.01 μ F	0.5 pF – 0.01 μ F	0.5 pF – 6.8 nF	0.5 pF – 4.7 nF	0.5 pF – 180 pF
0805	0.5 pF – 0.047 μ F	0.5 pF – 0.047 μ F	0.5 pF – 0.047 μ F	0.5 pF – 0.022 μ F	0.5 pF – 0.015 μ F	0.5 pF – 1 nF
1206	1 pF – 0.1 μ F	1 pF – 0.1 μ F	1 pF – 0.1 μ F	1 pF – 0.082 μ F	1 pF – 0.047 μ F	1 pF – 2.7 nF
1210	1 pF – 0.15 μ F	1 pF – 0.15 μ F	1 pF – 0.15 μ F	1 pF – 0.15 μ F	1 pF – 0.1 μ F	1 pF – 5.6 nF
1812	0.015 μ F – 0.22 μ F	0.015 μ F – 0.22 μ F	0.015 μ F – 0.22 μ F	0.015 μ F – 0.22 μ F	0.015 μ F – 0.15 μ F	
2220	0.47 μ F	0.47 μ F	0.47 μ F	0.47 μ F		

Ceramic – Surface Mount (cont.)

HV-HT High Voltage, High Temperature, COG Dielectric, 500 – 2,000 VDC

Capacitance Range: 1 pF to 0.15 µF • Temperature Range: -55°C to +200°C

www.kemet.com/HV-HT-COG



C	2225	H	393	J	C	G	A	C	TU
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/ Grade (C-Spec)
	0805 1206 1210 1808 1812 1825 2220 2225 2824 3040 3640 4540	H = High temperature (200°C)	Two significant digits and number of zeros.	B = ±0.10 pF C = ±0.25 pF D = ±0.5 pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	C = 500 B = 630 D = 1,000 F = 1,500 G = 2,000	G = COG	A = N/A	C = 100% Matte Sn L = SnPb (5% Pb minimum) E = Gold (Au) 1.97 – 11.8 µin F = Gold (Au) 30 – 50 µin G = Gold (Au) 100 µin minimum	See "Packaging C-Spec Ordering Options Table" below

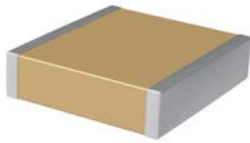
Case Size	Voltage				
	500	630	1,000	1,500	2,000
0805	1 pF – 820 pF	1 pF – 560 pF	1 pF – 270 pF		
1206	10 pF – 2.7 nF	10 pF – 1.8 nF	10 pF – 1 nF	10 pF – 560 pF	10 pF – 270 pF
1210	10 pF – 8.2 nF	10 pF – 5.6 nF	10 pF – 2.7 nF	10 pF – 1.2 nF	10 pF – 680 pF
1808	1 pF – 6.8 nF	1 pF – 4.7 nF	1 pF – 2.7 nF	1 pF – 1.5 nF	1 pF – 680 pF
1812	10 pF – 0.015 µF	10 pF – 0.01 µF	10 pF – 5.6 nF	10 pF – 2.7 nF	10 pF – 1.5 nF
1825	10 pF – 0.033 µF	10 pF – 0.018 µF	10 pF – 0.01 µF	10 pF – 5.6 nF	10 pF – 3 nF
2220	10 pF – 0.033 µF	10 pF – 0.027 µF	10 pF – 0.012 µF	10 pF – 6.8 nF	10 pF – 3.9 nF
2225	10 pF – 0.039 µF	10 pF – 0.027 µF	10 pF – 0.015 µF	10 pF – 6.8 nF	10 pF – 3.9 nF
2824	2.2 nF – 0.056 µF	2.2 nF – 0.039 µF	2.2 nF – 0.022 µF	2.2 nF – 8.2 nF	2.2 nF – 5.6 nF
3040	3.3 nF – 0.1 µF	3.3 nF – 0.068 µF	3.3 nF – 0.039 µF	3.3 nF – 0.015 µF	3.3 nF – 0.01 µF
3640	3.9 nF – 0.12 µF	3.9 nF – 0.068 µF	3.9 nF – 0.047 µF	3.9 nF – 0.018 µF	3.9 nF – 0.015 µF
4540	4.7 nF – 0.15 µF	4.7 nF – 0.1 µF	4.7 nF – 0.068 µF	4.7 nF – 0.027 µF	4.7 nF – 0.018 µF

Ceramic – Surface Mount (cont.)

Pulse Discharge, High Voltage, High Temperature, C0G Dielectric, 1,000 – 3,000 VDC

Capacitance Range: 2.2 nF to 0.15 µF • Temperature Range: –55°C to +200°C

www.kemet.com/Pulse-Discharge



C	2824	H	393	K	U	G	W	C	TU
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance	Dielectric Withstanding Voltage (VDC) ¹	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/ Grade (C-Spec) ³
	2824 3040 3640 4540	H = High temperature (200°C)	Two significant digits + number of zeros	J = ±5% K = ±10% M = ±20%	D = 1,000 U = 1,250 G = 2,000 H = 3,000 V = 3,500	G = C0G	W = Pulse discharge	C = 100% Matte Sn L = SnPb (5% Pb minimum)	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage				
	1,000	1,250	2,000	3,000	3,500
2824	2.2 nF – 0.056 µF	2.2 nF – 0.039 µF	2.2 nF – 0.022 µF	2.2 nF – 8.2 nF	2.2 nF – 5.6 nF
3040	3.3 nF – 0.1 µF	3.3 nF – 0.068 µF	3.3 nF – 0.039 µF	3.3 nF – 0.015 µF	3.3 nF – 0.01 µF
3640	3.9 nF – 0.12 µF	3.9 nF – 0.068 µF	3.9 nF – 0.047 µF	3.9 nF – 0.018 µF	3.9 nF – 0.015 µF
4540	4.7 nF – 0.15 µF	4.7 nF – 0.1 µF	4.7 nF – 0.068 µF	4.7 nF – 0.027 µF	4.7 nF – 0.018 µF

KPS-MCC High Temperature 200°C SMPS Stacks, 50 – 2,000 VDC (Industrial Grade)

Capacitance Range: 4.7 nF to 2.0 µF • Temperature Range: –55°C to +200°C

www.kemet.com/KPS-MCC



L1	G	N	30	C	106	K	A	02
Product Family	Dielectric Classification/ Characteristic	Lead Configuration ¹	Case Size/ Case Code (CC)	Rated Voltage (DC)	Capacitance Code (pF)	Capacitance Tolerance	Lead/ Termination Finish	Number of Chips
L1	G = 200°C C0G (BME)	N = Straight pin L = Formed "L" J = Formed "J"	30 = CC3 40 = CC4 50 = CC5	5 = 50 V 1 = 100 V 2 = 200 V C = 500 V B = 630 V D = 1,000 V F = 1,500 V G = 2,000 V	Two Significant Digits and number of zeros	J = ±5% K = ±10%	A = Silver H = Solder Coated (60/40)	01 - 10

Case Size	Voltage							
	50	100	200	500	630	1,000	1,500	2,000
3			0.4 µF – 2 µF	0.4 µF – 2 µF	0.25 µF – 1.2 µF	0.16 µF – 0.82 µF	0.066 µF – 0.33 µF	0.04 µF – 0.2 µF
4		0.33 µF – 1.7 µF	0.33 µF – 1.7 µF	0.12 µF – 0.6 µF	0.082 µF – 0.42 µF	0.056 µF – 0.27 µF	0.022 µF – 0.11 µF	0.015 µF – 0.072 µF
5	0.3 µF – 1.5 µF	0.3 µF – 1.5 µF	0.11 µF – 0.55 µF	0.047 µF – 0.25 µF	0.028 µF – 0.15 µF	0.018 µF – 0.092 µF	6.8 nF – 0.033 µF	4.7 nF – 0.025 µF

Ceramic – Lead

ACR/ACA/ARR/ARA Axial & Radial, C0G & X7R Dielectric, 50 – 100 VDC

Capacitance Range: 1 pF to 3.3 μ F • Temperature Range: -55°C to +200°C

www.kemet.com/Axx



A	C	R	06	B	103	K	G	S
Series	Dielectric	Lead Configuration	Case Size	Rated Voltage (VDC)	Capacitance Code (pF)	Capacitance Tolerance	Lead Finish	Grade/Test Level
A = High Temperature Axial and Radial Capacitors	C = C0G (NP0)/BP R = X7R (BX)	A = Axial R = Radial	05 – 09 = Radial 16 – 69 = Axial	B = 50 D = 100 S = Special	Two significant digits plus the number of zeros	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	W = Solder coated copper clad steel G = Gold-plated copper clad steel	S = Standard A = MIL-PRF-39014, Group A test X = Special

ACR

Case Size	Voltage	
	50	100
05 (5.08 x 5.08 x 2.54)	10 pF – 0.01 μ F	10 pF – 0.01 μ F
06 (7.62 x 7.62 x 2.54)	270 pF – 0.027 μ F	270 pF – 0.027 μ F
07 (7.62 x 7.62 x 3.81)	270 pF – 0.033 μ F	270 pF – 0.033 μ F
08 (12.7 x 12.7 x 2.54)	270 pF – 0.082 μ F	270 pF – 0.068 μ F
09 (12.7 x 12.7 x 3.81)	270 pF – 0.12 μ F	270 pF – 0.1 μ F

ARR

Case Size	Voltage	
	50	100
05 (5.08 x 5.08 x 2.54)	100 pF – 0.68 μ F	100 pF – 0.33 μ F
06 (7.62 x 7.62 x 2.54)	330 pF – 1 μ F	330 pF – 1 μ F
07 (7.62 x 7.62 x 3.81)	330 pF – 1 μ F	330 pF – 1 μ F
08 (12.7 x 12.7 x 2.54)	680 pF – 2.2 μ F	680 pF – 1.8 μ F
09 (12.7 x 12.7 x 3.81)	680 pF – 3.3 μ F	680 pF – 3.3 μ F

ACA

Case Size	Voltage	
	50	100
16 (4.32 x 2.03 x 2.03)	1 pF – 680 pF	1 pF – 560 pF
25 (6.86 x 2.54 x 2.54)	56 pF – 4.7 nF	56 pF – 4.7 nF
39 (10.16 x 3.81 x 3.81)	150 pF – 0.015 μ F	150 pF – 0.015 μ F
50 (13.21 x 6.73 x 4.06)	390 pF – 0.039 μ F	390 pF – 0.022 μ F
69 (18.29 x 9.4 x 4.06)	820 pF – 0.1 μ F	820 pF – 0.1 μ F

ARA

Case Size	Voltage	
	50	100
16 (4.32 x 2.03 x 2.03)	100 pF – 0.015 μ F	100 pF – 4.7 nF
25 (6.86 x 2.54 x 2.54)	100 pF – 0.12 μ F	100 pF – 0.047 μ F
39 (10.16 x 3.81 x 3.81)	180 pF – 0.33 μ F	180 pF – 0.12 μ F
50 (13.21 x 6.73 x 4.06)	390 pF – 1 μ F	390 pF – 1 μ F
69 (18.29 x 9.4 x 4.06)	820 pF – 1.8 μ F	820 pF – 1.8 μ F

Ceramic – Leaded (cont.)

HT/HP Axial & Radial, C0G & X7R Dielectric, 50 – 200 VDC

Capacitance Range: 5.6 pF to 5.6 μ F • Temperature Range: -55°C to +200°C

www.kemet.com/HT-HP



HT06	A	W	472	K	N
Style/Size	Rated Voltage (VDC)	Dielectric	Capacitance Code (pF)	Capacitance Tolerance	Lead Finish
HT05 – HT16 HP05 – HP16	B = 50 C = 100 D = 200	N = C0G (NP0) W = X7R	Two significant digits plus number of zeros	J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	N = Nickel (standard) C = Solder coated clad steel

HT-C0G Axial

Case Size	Voltage		
	50	100	200
HT11 (2.54 x 4.32)	1 pF – 1 nF	1 pF – 1 nF	1 pF – 820 pF
HT13 (3.43 x 6.6)	15 pF – 5.6 nF	15 pF – 5.6 nF	15 pF – 3.9 nF
HT14 (3.94 x 10.16)	150 pF – 0.018 μ F	150 pF – 0.018 μ F	150 pF – 0.012 μ F
HT16 (9.52 x 19.05)	820 pF – 0.1 μ F	820 pF – 0.1 μ F	820 pF – 0.082 μ F

HP-C0G Axial

Case Size	Voltage		
	50	100	200
HP11 (2.54 x 4.32)	1 pF – 1 nF	1 pF – 1 nF	1 pF – 820 pF
HP13 (3.43 x 6.6)	15 pF – 5.6 nF	15 pF – 5.6 nF	15 pF – 3.9 nF
HP14 (3.94 x 10.16)	150 pF – 0.018 μ F	150 pF – 0.018 μ F	150 pF – 0.012 μ F
HP15 (5.08 x 12.7)	390 pF – 0.047 μ F	390 pF – 0.047 μ F	390 pF – 0.039 μ F
HP16 (9.52 x 19.05)	820 pF – 0.1 μ F	820 pF – 0.1 μ F	820 pF – 0.082 μ F

HT-C0G Radial

Case Size	Voltage		
	50	100	200
HT05 (5.08 x 5.08 x 2.54)	22 pF – 2.7 nF	18 pF – 0.01 μ F	22 pF – 1.5 nF
HT06 (7.62 x 7.62 x 3.81)	220 pF – 0.039 μ F	270 pF – 0.039 μ F	270 pF – 0.015 μ F
HT08 (12.7 x 12.7 x 6.35)	680 pF – 0.12 μ F	680 pF – 0.12 μ F	680 pF – 0.12 μ F
HT09 (17.78 x 10.16 x 5.08)	0.01 μ F – 0.1 μ F	0.01 μ F – 0.1 μ F	0.01 μ F – 0.068 μ F
HT55 (5.08 x 5.08 x 2.54)	10 pF – 2.7 nF	10 pF – 2.7 nF	10 pF – 1.5 nF

HP-C0G Radial

Case Size	Voltage		
	50	100	200
HP05 (5.08 x 5.08 x 2.54)	22 pF – 2.7 nF	22 pF – 2.7 nF	22 pF – 1.5 nF
HP06 (7.62 x 7.62 x 3.81)	270 pF – 0.039 μ F	270 pF – 0.039 μ F	270 pF – 0.015 μ F
HP08 (12.7 x 12.7 x 6.35)	680 pF – 0.12 μ F	680 pF – 0.12 μ F	680 pF – 0.12 μ F
HP09 (17.78 x 10.16 x 5.08)	0.01 μ F – 0.1 μ F	0.01 μ F – 0.1 μ F	0.01 μ F – 0.068 μ F
HP55 (5.08 x 5.08 x 2.54)	10 pF – 2.7 nF	10 pF – 2.7 nF	10 pF – 1.5 nF

HT-X7R Axial

Case Size	Voltage		
	50	100	200
HT11 (2.54 x 4.32)	100 pF – 0.056 μ F	100 pF – 0.056 μ F	100 pF – 0.018 μ F
HT13 (3.43 x 6.6)	100 pF – 0.22 μ F	100 pF – 0.22 μ F	100 pF – 0.027 μ F
HT14 (3.94 x 10.16)	330 pF – 0.47 μ F	330 pF – 0.47 μ F	330 pF – 0.18 μ F
HT16 (9.52 x 19.05)	820 pF – 4.7 μ F	820 pF – 4.7 μ F	820 pF – 1.5 μ F

HP-X7R Axial

Case Size	Voltage		
	50	100	200
HP11 (2.54 x 4.32)	100 pF – 0.056 μ F	100 pF – 0.056 μ F	100 pF – 0.018 μ F
HP13 (3.43 x 6.6)	100 pF – 0.22 μ F	100 pF – 0.22 μ F	100 pF – 0.027 μ F
HP14 (3.94 x 10.16)	330 pF – 0.47 μ F	330 pF – 0.47 μ F	330 pF – 0.18 μ F
HP15 (5.08 x 12.7)	390 pF – 2.2 μ F	390 pF – 2.2 μ F	390 pF – 0.47 μ F
HP16 (9.52 x 19.05)	820 pF – 4.7 μ F	820 pF – 4.7 μ F	820 pF – 1.5 μ F

HT-X7R Radial

Case Size	Voltage		
	50	100	200
HT05 (5.08 x 5.08 x 2.54)	1 nF – 0.082 μ F	1 nF – 0.082 μ F	1 nF – 0.027 μ F
HT06 (7.62 x 7.62 x 3.81)	1.8 nF – 1 μ F	1.8 nF – 1 μ F	1.8 nF – 0.47 μ F
HT08 (12.7 x 12.7 x 6.35)	1.2 nF – 5.6 μ F	1.2 nF – 5.6 μ F	1.2 nF – 2.7 μ F
HT09 (17.78 x 10.16 x 5.08)	0.1 μ F – 3.9 μ F	0.1 μ F – 3.9 μ F	0.1 μ F – 1 μ F
HT55 (5.08 x 5.08 x 2.54)	1 nF – 0.082 μ F	1 nF – 0.082 μ F	1 nF – 0.027 μ F

HP-X7R Radial

Case Size	Voltage		
	50	100	200
HP05 (5.08 x 5.08 x 2.54)	1 nF – 0.082 μ F	1 nF – 0.082 μ F	1 nF – 0.027 μ F
HP06 (7.62 x 7.62 x 3.81)	1.8 nF – 1 μ F	1.8 nF – 1 μ F	1.8 nF – 0.47 μ F
HP08 (12.7 x 12.7 x 6.35)	1.2 nF – 5.6 μ F	1.2 nF – 5.6 μ F	1.2 nF – 2.7 μ F
HP09 (17.78 x 10.16 x 5.08)	0.1 μ F – 3.9 μ F	0.1 μ F – 3.9 μ F	0.1 μ F – 1 μ F
HP55 (5.08 x 5.08 x 2.54)	1 nF – 0.082 μ F	1 nF – 0.082 μ F	1 nF – 0.027 μ F

Ceramic – Leaded (cont.)

HV Radial Conformal Coated, C0G & X7R Dielectric, 500 – 4,000 VDC

Capacitance Range: 270 pF to 0.47 µF • Temperature Range: -55°C to +200°C

www.kemet.com/HV200C



10	HV12	W	472	K	N	M
Rated Voltage (VDC)	Style/Size	Dielectric	Capacitance Code (pF)	Capacitance Tolerance	Lead Finish	Group A Screening
05 = 500 10 = 1,000 20 = 2,000 30 = 3,000 40 = 4,000	HV10 – HV16	N = C0G (NP0) W = X7R	Two significant digits and number of zeros	J = ±5% K = ±10% M = ±20%	N = Nickel (standard) C = Solder coated clad steel	MIL-PRF-49467 (subgroup 1) except corona

C0G

Case Size	Voltage				
	500	1,000	2,000	3,000	4,000
HV10 (6.35 x 5.59 x 3.81)	27 pF – 1.5 nF	27 pF – 1.5 nF	10 pF – 390 pF		
HV11 (8.13 x 7.62 x 6.35)	39 pF – 2.2 nF	39 pF – 1.8 nF	22 pF – 1 nF	22 pF – 470 pF	
HV12 (10.67 x 10.16 x 6.35)	47 pF – 3.3 nF	47 pF – 2.7 nF	27 pF – 1.5 nF	27 pF – 1 nF	
HV13 (13.21 x 12.7 x 7.62)	120 pF – 5.6 nF	120 pF – 4.7 nF	120 pF – 3.3 nF	120 pF – 2.7 nF	
HV14 (15.75 x 12.7 x 7.62)	180 pF – 8.2 nF	180 pF – 6.8 nF	100 pF – 3.9 nF	100 pF – 3.3 nF	18 pF – 2.7 nF
HV15 (18.29 x 17.78 x 7.62)	390 pF – 0.01 µF	390 pF – 0.01 µF	150 pF – 4.7 nF	150 pF – 3.9 nF	27 pF – 3.3 nF
HV16 (20.83 x 17.78 x 8.89)	470 pF – 0.015 µF	470 pF – 0.015 µF	270 pF – 0.012 µF	270 pF – 8.2 nF	47 pF – 5.6 nF

X7R

Case Size	Voltage				
	500	1,000	2,000	3,000	4,000
HV10 (6.35 x 5.59 x 3.81)	680 pF – 0.047 µF	680 pF – 0.012 µF	100 pF – 4.7 nF		
HV11 (8.13 x 7.62 x 6.35)	1.2 nF – 0.15 µF	1.2 nF – 0.047 µF	560 pF – 2.7 nF		
HV12 (10.67 x 10.16 x 6.35)	1.2 nF – 0.22 µF	1.2 nF – 0.018 µF	680 pF – 0.01 µF		
HV13 (13.21 x 12.7 x 7.62)	3.3 nF – 0.082 µF	3.3 nF – 0.047 µF	1.2 nF – 0.018 µF	1 nF – 0.01 µF	
HV14 (15.75 x 12.7 x 7.62)	6.8 nF – 0.12 µF	6.8 nF – 0.056 µF	2.7 nF – 0.027 µF	2.7 nF – 0.012 µF	470 pF – 0.012 µF
HV15 (18.29 x 17.78 x 7.62)	0.01 µF – 0.22 µF	0.01 µF – 0.056 µF	3.9 nF – 0.027 µF	2.2 nF – 0.015 µF	680 pF – 0.01 µF
HV16 (20.83 x 17.78 x 8.89)	0.015 µF – 0.47 µF	0.015 µF – 0.47 µF	6.8 nF – 0.047 µF	6.8 nF – 0.027 µF	1.2 nF – 0.012 µF

Ceramic – Leaded (cont.)

VCR/VRR Radial, COG & X7R Dielectric, 500 – 5,000 VDC

Capacitance Range: 10 pF to 1.2 µF • Temperature Range: -55°C to +200°C

www.kemet.com/VCR-VRR



V	C	R	40	M	102	K	W	A
Series	Dielectric	Lead Configuration	Case Size	Rated Voltage (VDC)	Capacitance Code (pF)	Capacitance Tolerance	Lead Finish	Grade/ Test Level
V = High Voltage Radial Capacitors	C = COG (NP0)/BP R = X7R (BX)	R = Radial	07 40 50 60 70 80	L = 500 M = 1,000 T = 2,000 V = 3,000 W = 4,000 X = 5,000	Two significant digits and number of zeros	J = ±5% K = ±10% M = ±20%	W = Solder coated copper clad steel G = Gold-plated copper clad steel	S = Standard A = MIL-PRF-20, Group A test X = Special

VCR

Case Size	Voltage					
	500	1,000	2,000	3,000	4,000	5,000
07 (7.62 x 7.62 x 3.81)	10 pF – 3.3 nF	10 pF – 6.8 nF	10 pF – 470 pF			
40 (8.89 x 10.16 x 6.98)	10 pF – 8.2 nF	10 pF – 3.3 nF	10 pF – 330 pF	10 pF – 270 pF	10 pF – 270 pF	
50 (13.2 x 12.7 x 7.62)	18 pF – 0.018 µF	18 pF – 6.8 nF	18 pF – 1.5 nF	18 pF – 1 nF	18 pF – 1 nF	18 pF – 680 pF
60 (13.97 x 15.24 x 9.52)	22 pF – 0.027 µF	22 pF – 0.015 µF	22 pF – 3.3 nF	22 pF – 2.2 nF	22 pF – 2.2 nF	22 pF – 1.2 nF
70 (16.51 x 17.78 x 9.52)	27 pF – 0.033 µF	27 pF – 0.027 µF	27 pF – 4.7 nF	27 pF – 2.7 nF	27 pF – 2.7 nF	27 pF – 2.2 nF
80 (19.05 x 20.32 x 9.52)	33 pF – 0.056 µF	33 pF – 0.033 µF	33 pF – 6.8 nF	33 pF – 3.9 nF	33 pF – 3.9 nF	33 pF – 2.7 nF

VRR

Case Size	Voltage					
	500	1,000	2,000	3,000	4,000	5,000
07 (7.62 x 7.62 x 3.81)	390 pF – 0.056 µF	390 pF – 0.015 µF	390 pF – 3.9 nF			
40 (8.89 x 10.16 x 6.98)	330 pF – 0.33 µF	330 pF – 0.1 µF	330 pF – 0.027 µF	330 pF – 0.015 µF	330 pF – 6.8 nF	
50 (13.2 x 12.7 x 7.62)	470 pF – 0.33 µF	470 pF – 0.1 µF	470 pF – 0.027 µF	470 pF – 0.015 µF	470 pF – 8.2 nF	470 pF – 2.7 nF
60 (13.97 x 15.24 x 9.52)	560 pF – 0.68 µF	560 pF – 0.18 µF	560 pF – 0.056 µF	560 pF – 0.033 µF	560 pF – 0.018 µF	560 pF – 6.8 nF
70 (16.51 x 17.78 x 9.52)	820 pF – 1 µF	820 pF – 0.27 µF	820 pF – 0.082 µF	820 pF – 0.047 µF	820 pF – 0.027 µF	820 pF – 0.01 µF
80 (19.05 x 20.32 x 9.52)	1 nF – 1.2 µF	1 nF – 0.39 µF	1 nF – 0.12 µF	1 nF – 0.056 µF	1 nF – 0.033 µF	1 nF – 0.015 µF

Ceramic – Leaded (cont.)

High Temperature Radial Molded, C0G Dielectric, 50 – 200 VDC

Capacitance Range: 1 pF up to 0.22 μ F • Temperature Range: -55°C to +200°C

www.kemet.com/HT200C-Radial-C0G



C	052	H	272	F	2	G	5	G	A	7301
Ceramic	Style/Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish ²	Failure Rate	Packaging C-Spec ³
	052 062	H = High temperature 200°C	Two significant digits and number of zeros Use 9 for 1.0 – 9.9 pF e.g., 2.2 pF = 229	B = $\pm$ 0.1 pF C = $\pm$ 0.25 pF D = $\pm$ 0.5 pF F = $\pm$ 1% G = $\pm$ 2% J = $\pm$ 5% K = $\pm$ 10%	5 = 50 1 = 100 2 = 200	G = C0G	5 = Multilayer	G = Gold (Au)	A = N/A	Blank = Bulk Bag T250 = 250 pcs/ 12" reel T500 = 500 pcs/ 12" reel T1K0 = 1,000 pcs/ 12" reel 7301 = Full reel qty/ 12" reel 7303 = Full reel qty/ 12" reel 7061 = Bulk tray

Case Size	Voltage		
	50	100	200
C052 (4.83 x 5.97 x 2.29)	1 pF – 0.1 μ F	1 pF – 0.047 μ F	1 pF – 3.3 nF
C062 (7.37 x 7.37 x 2.29)	0.12 μ F – 0.22 μ F	0.056 μ F – 0.12 μ F	4.7 nF – 6.8 nF

High Temperature Radial Molded, X7R Dielectric, 50 – 200 VDC

Capacitance Range: 1,000 pF up to 1 μ F • Temperature Range: -55°C to +200°C

www.kemet.com/HT200C-Radial-X7R



C	062	H	105	K	5	R	5	G	A	7303
Ceramic	Style/Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Design	Lead Finish ²	Failure Rate	Packaging C-Spec ³
	052 062	H = High temperature 200°C	Two significant digits and number of zeros Use 9 for 1.0 – 9.9 pF e.g., 2.2 pF = 229	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	5 = 50 1 = 100 2 = 200	R = X7R	5 = Multilayer	G = Gold (Au)	A = N/A	Blank = Bulk Bag T250 = 250 pcs/ 12" reel T500 = 500 pcs/ 12" reel T1K0 = 1,000 pcs/ 12" reel 7301 = Full reel qty/ 12" reel 7303 = Full reel qty/ 12" reel 7061 = Bulk tray

Case Size	Voltage		
	50	100	200
C052 (4.83 x 5.97 x 2.29)	1 nF – 0.1 μ F	1 nF – 0.047 μ F	1 nF – 3.3 nF
C062 (7.37 x 7.37 x 2.29)	0.12 μ F – 1 μ F	0.056 μ F – 0.12 μ F	4.7 nF – 6.8 nF

200°C Capacitors

Ceramic – Leaded (cont.)

KPS-MCC High Temperature 200°C SMPS Stacks, 50 – 2,000 VDC (Industrial Grade)

Capacitance Range: 4.7 nF to 2.0 µF • Temperature Range: -55°C to +200°C

www.kemet.com/KPS-MCC



L1	G	N	30	C	106	K	A	02
Product Family	Dielectric Classification/Characteristic	Lead Configuration¹	Case Size/Case Code (CC)	Rated Voltage (DC)	Capacitance Code (pF)	Capacitance Tolerance	Lead/Termination Finish	Number of Chips
L1	G = 200°C C0G (BME)	N = Straight pin L = Formed "L" J = Formed "J"	30 = CC3 40 = CC4 50 = CC5	5 = 50 V 1 = 100 V 2 = 200 V C = 500 V B = 630 V D = 1,000 V F = 1,500 V G = 2,000 V	Two Significant Digits and number of zeros	J = ±5% K = ±10%	A = Silver H = Solder Coated (60/40)	01 - 10

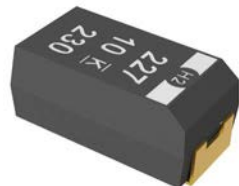
Case Size	Voltage							
	50	100	200	500	630	1,000	1,500	2,000
3			0.4 µF – 2 µF	0.4 µF – 2 µF	0.25 µF – 1.2 µF	0.16 µF – 0.82 µF	0.066 µF – 0.33 µF	0.04 µF – 0.2 µF
4		0.33 µF – 1.7 µF	0.33 µF – 1.7 µF	0.12 µF – 0.6 µF	0.082 µF – 0.42 µF	0.056 µF – 0.27 µF	0.022 µF – 0.11 µF	0.015 µF – 0.072 µF
5	0.3 µF – 1.5 µF	0.3 µF – 1.5 µF	0.11 µF – 0.55 µF	0.047 µF – 0.25 µF	0.028 µF – 0.15 µF	0.018 µF – 0.092 µF	6.8 nF – 0.033 µF	4.7 nF – 0.025 µF

Tantalum

T500 MnO₂, 10 – 35 VDC

Capacitance Range: 33 to 220 µF • Temperature Range: -55°C to +200°C

www.kemet.com/T500



T	500	X	227	M	010	A	G	61	10
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/Design	Termination Finish	Performance	ESR
T = Tantalum	High temperature 200°C	X	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	010 = 10 016 = 16 035 = 35	A = N/A B = 0.1%/1,000 hours	G = Gold-plated	61 = Surge none 62 = Surge at 25°C after Weibull 63 = Surge -55°C and +85°C after Weibull	10 = Standard ESR

Case Size	Voltage		
	10	16	35
X/7343 – 43	220 µF	100 µF	10 µF – 33 µF

> 200°C Capacitors

200°C Capacitors

175°C Capacitors

150°C Capacitors

> 200°C Capacitors

Ceramic

TCR/TRR/TCA/TRA 260°C, Axial & Radial, C0G & X7R Dielectric, 50 – 100 VDC

Capacitance Range: 10 pF to 3.3 µF • Temperature Range: -55°C to +200°C

www.kemet.com/Txx



T	C	R	06	B	103	K	G	S
Series	Dielectric	Lead Configuration	Case Size	Rated Voltage (VDC)	Capacitance Code (pF)	Capacitance Tolerance	Lead Finish	Grade/ Test Level
T = High Temperature Axial and Radial Capacitors	C = C0G (NP0)/BP R = X7R (BX)	A = Axial R = Radial	05 – 09 = Radial 16 – 69 = Axial	B = 50 D = 100	Two significant digits and number of zeros	J = ±5% K = ±10% M = ±20%	W = Solder coated copper clad steel G = Gold-plated copper clad steel	S = Standard A = MIL-PRF-20, Group A test (C0G) A = MIL-PRF-39014 (X7R) X = Special

TCR

Case Size	Voltage	
	50	100
05 (5.08 x 5.08 x 2.54)	10 pF – 0.01 µF	10 pF – 0.01 µF
06 (7.62 x 7.62 x 2.54)	330 pF – 0.027 µF	330 pF – 0.022 µF
07 (7.62 x 7.62 x 3.81)	270 pF – 0.033 µF	270 pF – 0.033 µF
08 (12.7 x 12.7 x 2.54)	270 pF – 0.082 µF	270 pF – 0.068 µF
09 (12.7 x 12.7 x 3.81)	270 pF – 0.12 µF	270 pF – 0.1 µF

TCA

Case Size	Voltage	
	50	100
16 (4.32 x 2.03 x 2.03)	1 pF – 680 pF	1 pF – 560 pF
25 (6.86 x 2.54 x 2.54)	56 pF – 4.7 nF	56 pF – 4.7 nF
39 (10.16 x 3.81 x 3.81)	150 pF – 0.015 µF	150 pF – 0.015 µF
50 (13.21 x 6.73 x 4.06)	390 pF – 0.039 µF	390 pF – 0.022 µF
69 (18.29 x 9.4 x 4.06)	820 pF – 0.1 µF	820 pF – 0.1 µF

TRR

Case Size	Voltage	
	50	100
05 (5.08 x 5.08 x 2.54)	100 pF – 0.33 µF	100 pF – 0.33 µF
06 (7.62 x 7.62 x 2.54)	330 pF – 1 µF	330 pF – 1 µF
07 (7.62 x 7.62 x 3.81)	330 pF – 0.82 µF	330 pF – 0.56 µF
08 (12.7 x 12.7 x 2.54)	680 pF – 2.2 µF	680 pF – 2 µF
09 (12.7 x 12.7 x 3.81)	680 pF – 3.3 µF	680 pF – 3.3 µF

TRA

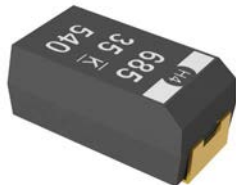
Case Size	Voltage	
	50	100
16 (4.32 x 2.03 x 2.03)	100 pF – 0.015 µF	100 pF – 4.7 nF
25 (6.86 x 2.54 x 2.54)	100 pF – 0.12 µF	100 pF – 0.047 µF
39 (10.16 x 3.81 x 3.81)	180 pF – 0.33 µF	180 pF – 0.12 µF
50 (13.21 x 6.73 x 4.06)	390 pF – 1 µF	390 pF – 1 µF
69 (18.29 x 9.4 x 4.06)	820 pF – 2 µF	820 pF – 2 µF

Tantalum – Surface Mount

T502 MnO₂ 230°C, 16 – 35 VDC

Capacitance Range: 6.8 to 10 µF • Temperature Range: –55°C to +230°C

www.kemet.com/T502



T	502	D	685	M	035	A	G	61	10
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/Design	Termination Finish	Performance	ESR
T = Tantalum	High temperature 230°C	B D	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	016 = 16 025 = 25 035 = 35	A = N/A	G = Gold-plated	61 = Surge none 62 = Surge at 25°C 63 = Surge –55°C and +85°C	10 = Standard ESR

Case Size	Voltage		
	16	25	35
B/3528 – 21	10 µF		
D/7343 – 31		10 µF	6.8 µF



CORPORATE HEADQUARTERS

KEMET Electronics Corporation
KEMET Tower
One East Broward Boulevard
Fort Lauderdale, Florida 33301
USA
954.766.2800
www.kemet.com

Countries & Areas listed below represent KEMET operations throughout the world.

Bulgaria	Hong Kong	Macedonia	Singapore	United Kingdom
China	India	Malaysia	South Korea	USA
Finland	Indonesia	Macedonia	Sweden	Vietnam
France	Italy	Mexico	Taiwan	
Germany	Japan	Portugal	Thailand	