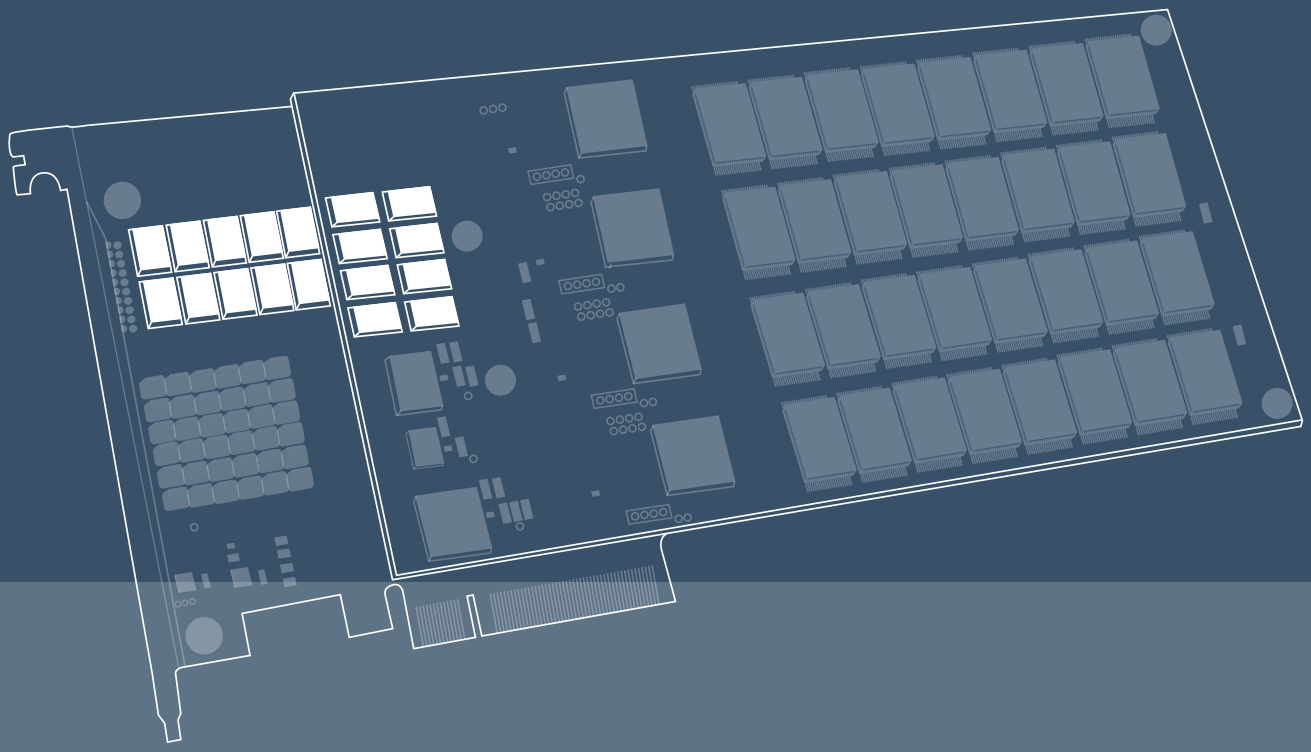
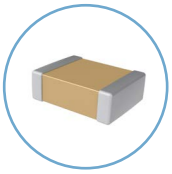
Capacitor Selection Guide

Solid State Drives





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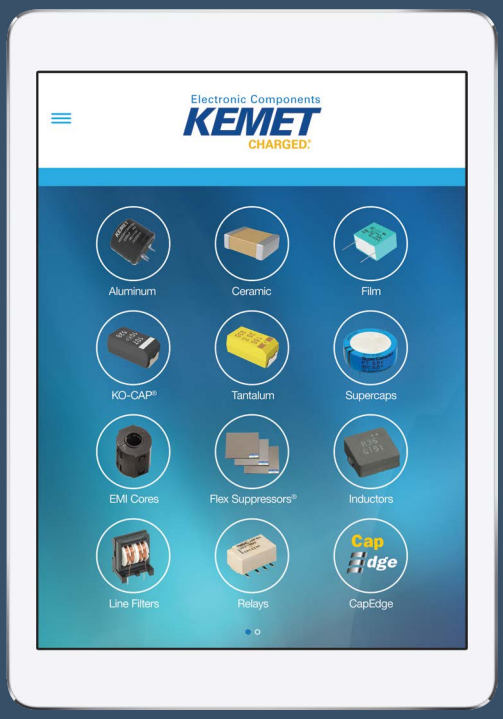

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Why Choose KEMET

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.

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TABLE OF CONTENTS

Aluminum Capacitors

Radial Aluminum Electrolytic

ESK General Purpose 85°C, 6.3 – 500 VDC

Capacitance Range: 1 to 22,000 µF • **Temperature Range:** −40°C to +85°C
Lifetime: 2,000 Hours

www.kemet.com/ESK

ESK	226	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25 035 = 35 050 = 50 063 = 63	100 = 100 160 = 160 200 = 200 250 = 250 350 = 350 400 = 400 450 = 450 500 = 500	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
5 x 11	22 µF – 220 µF	4.7 µF – 100 µF	4.7 µF – 100 µF	4.7 µF – 68 µF	4.7 µF – 47 µF	1 µF – 33 µF	1 µF – 22 µF	1 µF – 10 µF
6.3 x 11	220 µF – 470 µF	220 µF – 470 µF	150 µF – 330 µF	100 µF	100 µF	47 µF	22 µF – 47 µF	10 µF – 22 µF
8 x 11	680 µF – 1 mF	680 µF	330 µF – 470 µF	220 µF – 330 µF	220 µF	100 µF		22 µF – 33 µF
8 x 15				470 µF				
10 x 12.5	1 mF	1 mF	680 µF	470 µF	330 µF	220 µF	100 µF	47 µF
10 x 15			1 mF	680 µF	470 µF	330 µF	220 µF	68 µF
10 x 20	2.2 mF – 3.3 mF	2.2 mF		1 mF	680 µF	470 µF	220 µF – 330 µF	100 µF
13 x 16				1 mF				
13 x 20	4.7 mF	3.3 mF	2.2 mF		1 mF		470 µF	150 µF
13 x 25	6.8 mF	4.7 mF	3.3 mF	2.2 mF		1 mF	680 µF	220 µF – 330 µF
16 x 25	10 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF		1 mF	470 µF
16 x 32			6.8 mF	4.7 mF				
18 x 32		10 mF			3.3 mF	2.2 mF		
18 x 36		15 mF	10 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	
18 x 40	22 mF							1 mF
22 x 40		22 mF	15 mF – 0.022 F	10 mF – 0.015 F	6.8 mF	4.7 mF	3.3 mF	

Radial Aluminum Electrolytic (cont.)

ESK General Purpose 85°C, 6.3 – 500 VDC (cont.)

Capacitance Range: 1 to 22,000 µF • **Temperature Range:** −40°C to +85°C
Lifetime: 2,000 Hours

www.kemet.com/ESK

ESK	226	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25 035 = 35 050 = 50 063 = 63	100 = 100 160 = 160 200 = 200 250 = 250 350 = 350 400 = 400 450 = 450 500 = 500	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage						
	160	200	250	350	400	450	500
5 x 11	1 µF	1 µF	1 µF				
6.3 x 11	1 µF – 4.7 µF	2.2 µF – 4.7 µF	1 µF – 2.2 µF	1 µF	1 µF – 2.2 µF		
8 x 11	10 µF	6.8 µF – 10 µF	2.2 µF – 6.8 µF	2.2 µF – 3.3 µF	1 µF – 4.7 µF	1 µF	
10 x 12.5			10 µF	4.7 µF	4.7 µF – 6.8 µF	2.2 µF – 4.7 µF	2.2 µF
10 x 15	22 µF – 33 µF	22 µF		10 µF	10 µF	6.8 µF	3.3 µF
10 x 20	33 µF – 47 µF	33 µF – 47 µF	22 µF			10 µF	6.8 µF
13 x 20	68 µF	47 µF	33 µF	22 µF	22 µF	10 µF	10 µF
13 x 25	100 µF		47 µF	33 µF	33 µF	22 µF	
16 x 25	150 µF	100 µF	100 µF	47 µF	47 µF	33 µF	22 µF – 33 µF
16 x 32	220 µF	220 µF	150 µF		68 µF	47 µF	
16 x 36				100 µF			
16 x 40		330 µF					
18 x 25		220 µF			68 µF	47 µF – 68 µF	
18 x 32		330 µF		100 µF	100 µF		47 µF
18 x 36							68 µF
18 x 40	470 µF	470 µF	220 µF		150 µF	100 µF	
22 x 35						150 µF	

Radial Aluminum Electrolytic (cont.)

ESH High CV 105°C, 6.3 – 450 VDC

Capacitance Range: 1 to 22,000 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 2,000 Hours

www.kemet.com/ESH

ESH	107	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25 035 = 35 050 = 50 063 = 63 100 = 100	160 = 160 200 = 200 250 = 250 350 = 350 400 = 400 420 = 420 450 = 450 500 = 500	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
5 x 11	100 µF – 150 µF	47 µF – 150 µF	33 µF – 100 µF	22 µF – 47 µF	10 µF – 47 µF	1 µF – 33 µF	1 µF – 15 µF	1 µF – 6.8 µF
6.3 x 11	220 µF – 470 µF	220 µF – 470 µF	150 µF – 220 µF	68 µF – 100 µF	68 µF – 100 µF	47 µF	22 µF – 33 µF	10 µF – 15 µF
8 x 11	680 µF	330 µF – 680 µF	330 µF – 470 µF	150 µF – 330 µF	150 µF	68 µF – 100 µF	47 µF	22 µF – 33 µF
8 x 15	1 mF	1 mF	680 µF	470 µF				
10 x 12.5	1 mF	680 µF – 1 mF	680 µF	330 µF – 470 µF	220 µF – 330 µF	150 µF – 220 µF	68 µF – 100 µF	47 µF
10 x 15	1.5 mF		1 mF	680 µF	470 µF	220 µF	150 µF	68 µF
10 x 20	2.2 mF	1.5 mF – 2.2 mF	1.5 mF	1 mF	680 µF	330 µF – 470 µF	220 µF	100 µF
13 x 20	3.3 mF – 4.7 mF	3.3 mF	2.2 mF	1.5 mF	1 mF	470 µF – 680 µF	330 µF – 470 µF	150 µF
13 x 25		4.7 mF	3.3 mF	2.2 mF	1.5 mF	1 mF		220 µF
16 x 25	6.8 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	1.5 mF	680 µF	330 µF
16 x 32	10 mF		6.8 mF	4.7 mF			1 mF	470 µF
16 x 36	15 mF	10 mF			3.3 mF	2.2 mF	1.5 mF	680 µF
18 x 36		15 mF	10 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	
18 x 40	22 mF							

Radial Aluminum Electrolytic (cont.)

ESH High CV 105°C, 6.3 – 450 VDC (cont.)

Capacitance Range: 1 to 22,000 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 2,000 Hours

www.kemet.com/ESH

ESH	107	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25 035 = 35 050 = 50 063 = 63 100 = 100	160 = 160 200 = 200 250 = 250 350 = 350 400 = 400 420 = 420 450 = 450 500 = 500	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	160	200	250	350	400	420	450	500
5 x 11	1 µF							
6.3 x 11	2.2 µF – 4.7 µF	1 µF – 3.3 µF	1 µF – 2.2 µF	1 µF	1 µF	1 µF	1 µF	
8 x 11	6.8 µF – 10 µF	4.7 µF – 6.8 µF	3.3 µF – 6.8 µF	2.2 µF – 4.7 µF	2.2 µF – 4.7 µF	2.2 µF – 3.3 µF	1 µF – 2.2 µF	2.2 µF
8 x 15					6.8 µF	3.3 µF	3.3 µF	
8 x 16								3.3 µF – 4.7 µF
10 x 12.5	15 µF	10 µF	10 µF		4.7 µF – 6.8 µF	4.7 µF	2.2 µF – 4.7 µF	4.7 µF
10 x 15	22 µF	15 µF	15 µF	10 µF	10 µF	6.8 µF	6.8 µF	
10 x 16								6.8 µF
10 x 20	33 µF – 47 µF	22 µF	22 µF		15 µF	10 µF	10 µF	8.2 µF – 10 µF
13 x 20	68 µF	33 µF – 47 µF	33 µF	22 µF	22 µF	15 µF	15 µF	10 µF
13 x 25	100 µF	68 µF	47 µF – 68 µF	33 µF	33 µF	22 µF	22 µF	15 µF – 22 µF
16 x 25	150 µF	100 µF	100 µF	47 µF	47 µF	33 µF – 47 µF	33 µF – 47 µF	22 µF
16 x 32	220 µF	150 µF	150 µF		68 µF	68 µF		47 µF
16 x 36		220 µF						
18 x 25					68 µF	68 µF		33 µF
18 x 30								47 µF
18 x 32		220 µF		100 µF	100 µF – 120 µF		68 µF	68 µF
18 x 36	330 µF	330 µF	220 µF		120 µF	100 µF	100 µF	68 µF
18 x 40	470 µF				150 µF	120 µF	120 µF	82 µF
18 x 45						150 µF	150 µF	

Radial Aluminum Electrolytic (cont.)

ESC Low ESR 105°C, 6.3 – 100 VDC

Capacitance Range: 4.7 to 15,000 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 3,000 Hours

www.kemet.com/ESC

ESC	157	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25	035 = 35 050 = 50 063 = 63 100 = 100	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
5 x 11	150 µF	100 µF – 120 µF	10 µF – 100 µF	47 µF – 56 µF	4.7 µF – 33 µF	4.7 µF – 22 µF	4.7 µF – 15 µF	4.7 µF – 6.8 µF
6.3 x 11	220 µF – 470 µF	150 µF – 220 µF	120 µF – 150 µF	68 µF – 100 µF	47 µF – 100 µF	33 µF – 47 µF	22 µF – 33 µF	10 µF – 15 µF
8 x 11	330 µF – 1 mF	330 µF – 680 µF	220 µF – 330 µF	120 µF – 220 µF	100 µF – 120 µF	68 µF – 100 µF	47 µF – 68 µF	22 µF
8 x 15	680 µF – 1.5 mF	470 µF	330 µF – 470 µF	220 µF – 330 µF	150 µF – 220 µF	100 µF		33 µF
8 x 20	820 µF – 1.5 mF	1 mF		330 µF – 470 µF		120 µF	100 µF	
10 x 12.5	1 mF	680 µF – 1 mF	330 µF – 470 µF	470 µF	220 µF	150 µF		
10 x 16	1.2 mF – 1.5 mF	820 µF – 1 mF	680 µF – 1 mF	330 µF – 470 µF	330 µF	120 µF – 220 µF		47 µF
10 x 20	1.5 mF – 2.2 mF	1 mF – 2.2 mF	820 µF – 1.5 mF	680 µF – 1 mF	330 µF – 470 µF	330 µF – 470 µF	220 µF	68 µF
10 x 25	2.2 mF – 3.3 mF	2.2 mF	1.2 mF	1 mF		220 µF		
10 x 30		3.3 mF	2.2 mF					
13 x 20	2.2 mF	2.2 mF	1.2 mF – 2.2 mF	1 mF	680 µF – 820 µF	470 µF	330 µF	100 µF
13 x 25	3.3 mF – 4.7 mF	3.3 mF – 4.7 mF	2.2 mF	1.2 mF	1 mF	680 µF	470 µF	120 µF – 150 µF
13 x 30	4.7 mF			1.5 mF – 2.2 mF				
13 x 35				2.2 mF				
13 x 40			3.3 mF					
16 x 25	4.7 mF	4.7 mF	3.3 mF	1.5 mF	1.2 mF – 1.5 mF	820 µF – 1 mF	680 µF	220 µF
16 x 32	6.8 mF – 8.2 mF			2.2 mF	2.2 mF	1.2 mF	820 µF – 1 mF	330 µF
16 x 36	10 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	1.5 mF	1.2 mF	
18 x 36	15 mF	8.2 mF	6.8 mF	3.3 mF – 6.8 mF	3.3 mF		1.5 mF	470 µF
18 x 40						2.2 mF		

Radial Aluminum Electrolytic (cont.)

ESY Low Impedance 105°C, 6.3 – 100 VDC

Capacitance Range: 5.6 to 6,800 µF • **Temperature Range:** −40°C to +85°C
Lifetime: 5,000 Hours

www.kemet.com/ESY

ESY	396	M	6R3		A	B2	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25	035 = 35 050 = 50 063 = 63 100 = 100	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
4 x 7	39 µF	27 µF	18 µF	15 µF	10 µF	5.6 µF		
5 x 7	47 µF – 68 µF	33 µF – 56 µF	27 µF – 33 µF	18 µF – 27 µF	15 µF – 18 µF	6.8 µF – 10 µF		
5 x 11	100 µF – 150 µF	68 µF – 100 µF	39 µF – 56 µF	33 µF – 47 µF	27 µF – 33 µF	15 µF – 22 µF	15 µF	6.8 µF
6.3 x 7	100 µF – 150 µF	120 µF	68 µF	56 µF	39 µF	15 µF – 22 µF		
6.3 x 11	270 µF – 330 µF	220 µF	100 µF – 120 µF	68 µF – 100 µF	47 µF – 56 µF	39 µF – 56 µF	22 µF – 33 µF	10 µF – 15 µF
8 x 7	180 µF – 220 µF	150 µF – 180 µF	100 µF – 120 µF	68 µF – 100 µF	47 µF – 56 µF	27 µF – 33 µF		
8 x 11	470 µF – 560 µF	270 µF – 470 µF	150 µF – 330 µF	120 µF – 220 µF	68 µF – 150 µF	68 µF – 100 µF	39 µF – 56 µF	22 µF – 27 µF
8 x 15	680 µF – 820 µF	560 µF		270 µF	180 µF	120 µF	68 µF – 82 µF	33 µF – 39 µF
8 x 16		680 µF	470 µF					
8 x 20	1.2 mF	820 µF – 1 mF	560 µF – 680 µF	470 µF	270 µF	180 µF	120 µF	56 µF
10 x 12.5	1 mF	560 µF – 680 µF	470 µF	270 µF – 330 µF	180 µF – 220 µF	150 µF	68 µF – 82 µF	47 µF
10 x 16	1.2 mF	820 µF – 1 mF	560 µF – 680 µF	470 µF	330 µF	220 µF	100 µF – 120 µF	68 µF
10 x 20	1.5 mF	1.2 mF	820 µF – 1 mF	560 µF – 680 µF	470 µF	270 µF	150 µF – 180 µF	82 µF
10 x 25	1.8 mF – 2.2 mF	1.5 mF	1.2 mF	820 µF	560 µF	330 µF	220 µF	100 µF
13 x 16							150 µF – 180 µF	82 µF
13 x 20	2.7 mF – 3.3 mF	1.8 mF – 2.2 mF	1.5 mF	1 mF	680 µF	390 µF – 470 µF	270 µF	120 µF
13 x 25	3.9 mF	2.7 mF – 3.3 mF	1.8 mF – 2.2 mF	1.2 mF – 1.5 mF	820 µF – 1 mF	560 µF	330 µF	150 µF – 180 µF
13 x 30	4.7 mF	3.9 mF	2.7 mF	1.8 mF	1.2 mF	680 µF	390 µF – 470 µF	220 µF
13 x 35	5.6 mF	4.7 mF			1.5 mF	820 µF	560 µF	
13 x 36			3.3 mF	2.2 mF				270 µF
13 x 40							680 µF	330 µF
16 x 20	5.6 mF	3.9 mF	2.7 mF	1.8 mF	1.2 mF	820 µF	390 µF – 470 µF	220 µF
16 x 25	6.8 mF	5.6 mF	3.9 mF	2.7 mF	1.8 mF		560 µF	270 µF
16 x 32						1 mF	820 µF	390 µF
16 x 36							1 mF	470 µF
16 x 40							1.2 mF	560 µF
18 x 20							680 µF	270 µF
18 x 25							820 µF	390 µF
18 x 32							1 mF	470 µF
18 x 36							1.2 mF	560 µF
18 x 40							1.5 mF	680 µF

Radial Aluminum Electrolytic (cont.)

ESG High Ripple Current 105°C, 160 – 500 VDC

Capacitance Range: 3.3 to 330 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 5,000 Hours

www.kemet.com/ESG

ESG	226	M	160		A	H4	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	160 = 160 200 = 200 250 = 250 350 = 350	400 = 400 450 = 450 500 = 500	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage						
	160	200	250	350	400	450	500
10 x 16		10 µF – 15 µF	10 µF		4.7 µF – 10 µF		
10 x 20	22 µF – 33 µF	22 µF – 33 µF	10 µF	10 µF	10 µF	3.3 µF – 6.8 µF	4.7 µF
10 x 25			10 µF				
13 x 20	47 µF	33 µF – 47 µF	22 µF – 33 µF	22 µF	22 µF	4.7 µF – 22 µF	6.8 µF
13 x 25	68 µF	68 µF	47 µF	33 µF	22 µF	10 µF	10 µF
16 x 20	68 µF	68 µF	47 µF	33 µF	22 µF		
16 x 25	100 µF	100 µF	68 µF	47 µF	33 µF – 47 µF	22 µF – 33 µF	22 µF
16 x 26						47 µF	
16 x 30					68 µF		
16 x 32	150 µF – 220 µF		100 µF	68 µF	47 µF – 68 µF	33 µF	33 µF
16 x 36							47 µF
18 x 20	100 µF	100 µF	68 µF	47 µF	33 µF	22 µF	22 µF
18 x 25	150 µF – 220 µF	150 µF	100 µF	68 µF	47 µF	33 µF – 68 µF	33 µF
18 x 32	330 µF	220 µF	150 µF	100 µF	100 µF	47 µF – 68 µF	47 µF – 68 µF
18 x 36					68 µF		68 µF
18 x 40			220 µF		100 µF – 150 µF	68 µF	82 µF
22 x 35							82 µF – 100 µF
22 x 40					150 µF	100 µF	120 µF
22 x 45							150 µF

Radial Aluminum Electrolytic (cont.)

ESW Low Impedance 105°C, 6.3 – 100 VDC

Capacitance Range: 2.2 to 15,000 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 6,000 Hours

www.kemet.com/ESW

ESW	157	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25	035 = 35 050 = 50 063 = 63 100 = 100	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
5 x 11	22 µF – 150 µF	22 µF – 100 µF	10 µF – 56 µF	4.7 µF – 47 µF	4.7 µF – 33 µF	2.2 µF – 22 µF	4.7 µF – 15 µF	1 µF – 6.8 µF
6.3 x 11	150 µF – 470 µF	150 µF – 220 µF	100 µF – 220 µF	82 µF – 100 µF	47 µF – 56 µF	33 µF – 47 µF	15 µF – 33 µF	10 µF – 15 µF
6.3 x 15	330 µF	220 µF	180 µF	120 µF	68 µF – 82 µF	56 µF	39 µF	18 µF
8 x 11	470 µF – 680 µF	330 µF – 470 µF	220 µF – 330 µF	150 µF – 220 µF	100 µF – 150 µF	82 µF – 100 µF	47 µF – 68 µF	15 µF – 22 µF
8 x 12							56 µF	27 µF
8 x 15	820 µF – 1 mF	680 µF	470 µF	330 µF	220 µF	120 µF	82 µF – 100 µF	33 µF – 39 µF
8 x 20	1.2 mF – 1.5 mF	1 mF	470 µF – 1 mF	470 µF	270 µF – 330 µF	180 µF	120 µF	47 µF – 56 µF
10 x 12.5	820 µF	820 µF	470 µF	330 µF – 470 µF	220 µF	150 µF	82 µF	47 µF
10 x 16	1.2 mF – 1.5 mF	1 mF	470 µF – 1 mF	470 µF	330 µF	220 µF	120 µF	68 µF
10 x 20	1.5 mF – 2.2 mF	1.2 mF – 1.5 mF	820 µF – 1 mF	560 µF – 680 µF	330 µF – 470 µF	220 µF – 330 µF	180 µF – 220 µF	68 µF – 82 µF
10 x 25	2.2 mF – 3.3 mF	1.5 mF	1.2 mF	820 µF	560 µF	270 µF – 330 µF	220 µF	82 µF – 100 µF
10 x 30	2.7 mF	2.2 mF – 3.3 mF	1.5 mF	1 mF	680 µF	330 µF – 470 µF	270 µF	120 µF
13 x 16	1.8 mF	1.5 mF	1 mF	680 µF	470 µF	270 µF	180 µF	82 µF
13 x 20	2.2 mF – 3.3 mF	2.2 mF	1.5 mF	1 mF – 1.5 mF	680 µF – 820 µF	390 µF – 470 µF	270 µF – 330 µF	100 µF – 120 µF
13 x 25	3.9 mF	2.7 mF – 3.3 mF	2.2 mF	1.5 mF	1 mF	560 µF – 680 µF	330 µF – 470 µF	150 µF – 180 µF
13 x 30	4.7 mF	3.3 mF – 3.9 mF	2.7 mF	1.8 mF	1.2 mF	680 µF	470 µF	180 µF – 220 µF
13 x 35		4.7 mF					560 µF	270 µF
13 x 36	5.6 mF	3.9 mF	3.3 mF	2.2 mF	1.5 mF	820 µF	680 µF	
13 x 40	6.8 mF	5.6 mF	3.9 mF	2.7 mF	1.8 mF	1 mF	680 µF	330 µF
16 x 16	2.7 mF	2.2 mF	1.5 mF	1 mF	680 µF	470 µF	270 µF	150 µF
16 x 20	5.6 mF	3.9 mF	2.7 mF	1.8 mF	1.2 mF	680 µF – 820 µF	470 µF	180 µF – 220 µF
16 x 25	4.7 mF – 6.8 mF	4.7 mF – 5.6 mF	3.3 mF – 3.9 mF	1.5 mF – 2.7 mF	1.5 mF – 1.8 mF	1 mF	560 µF	220 µF – 330 µF
16 x 32	8.2 mF – 0.01 F	6.8 mF	4.7 mF	3.3 mF	2.2 mF	1.2 mF – 1.5 mF	820 µF – 1 mF	390 µF – 470 µF
16 x 36	10 mF	8.2 mF	5.6 mF	3.9 mF	2.7 mF	1.5 mF	270 µF – 1 mF	470 µF
16 x 40		10 mF	6.8 mF		3.3 mF	1.8 mF		560 µF
18 x 16	3.9 mF	2.7 mF	2.2 mF	1.2 mF	1 mF	560 µF	390 µF	180 µF
18 x 20	6.8 mF	5.6 mF	3.9 mF	2.2 mF	1.8 mF	1 mF	680 µF	330 µF
18 x 25	10 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	1.2 mF	820 µF	390 µF
18 x 32	12 mF	8.2 mF	5.6 mF	3.9 mF	2.7 mF	1.8 mF	1 mF – 1.2 mF	470 µF
18 x 36	15 mF	10 mF	8.2 mF	4.7 mF	3.3 mF	2.2 mF		680 µF
18 x 40		15 mF	10 mF	6.8 mF	4.7 mF			820 µF

Radial Aluminum Electrolytic (cont.)

EST Long Life 105°C, 6.3 – 100 VDC

Capacitance Range: 2.2 to 15,000 µF • **Temperature Range:** −40°C to +105°C
Lifetime: 10,000 Hours

www.kemet.com/EST

EST	157	M	6R3		A	C3	AA
Series	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)		Electrical Parameters	Size Code	Packaging
Single-Ended Aluminum Electrolytic	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	6R3 = 6.3 010 = 10 016 = 16 025 = 25	035 = 35 050 = 50 063 = 63 100 = 100	A = Standard	See Dimension Table	See Ordering Options Table

Case Size	Voltage							
	6.3	10	16	25	35	50	63	100
5 x 11	150 µF	100 µF	56 µF	47 µF	33 µF	10 µF – 22 µF	10 µF	2.2 µF – 6.8 µF
6.3 x 11	330 µF	220 µF	100 µF	100 µF	47 µF	33 µF – 47 µF	33 µF	10 µF – 15 µF
8 x 11	680 µF	470 µF	220 µF	150 µF – 220 µF	150 µF	100 µF	56 µF	22 µF – 33 µF
8 x 15	820 µF	680 µF	330 µF – 470 µF	330 µF	220 µF	120 µF		47 µF
8 x 20	1.5 mF					150 µF		56 µF
10 x 12.5	1 mF							
10 x 15	1.5 mF	1 mF	680 µF	470 µF				68 µF
10 x 16						220 µF	120 µF	
10 x 20	2.2 mF	1.5 mF	1 mF	680 µF	330 µF	330 µF	180 µF	82 µF – 100 µF
10 x 25	2.7 mF	2.2 mF	1.5 mF	820 µF	470 µF		220 µF	120 µF
10 x 30					680 µF	470 µF	270 µF	
13 x 20	3.3 mF	2.7 mF		1 mF	680 µF	470 µF	270 µF	150 µF
13 x 25	3.9 mF	3.3 mF	2.2 mF	1.5 mF	820 µF – 1 mF	560 µF	330 µF	220 µF
13 x 30	4.7 mF	3.9 mF	2.7 mF		1.2 mF	680 µF	470 µF	
13 x 35				2.2 mF				
13 x 36	5.6 mF	4.7 mF	3.3 mF		1.5 mF	820 µF	560 µF	
13 x 40	6.8 mF	5.6 mF	3.9 mF		1.8 mF		680 µF	
16 x 25	6.8 mF	5.6 mF		2.7 mF		1 mF		330 µF
16 x 32	8.2 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF	1.2 mF	820 µF	470 µF
16 x 36	10 mF	8.2 mF	5.6 mF		2.7 mF	1.5 mF	1 mF	
16 x 40							1.2 mF	
18 x 25								470 µF
18 x 32	12 mF		5.6 mF	3.9 mF		1.8 mF		
18 x 36	15 mF	1 mF	6.8 mF	4.7 mF	3.3 mF	2.2 mF		680 µF
18 x 40						2.7 mF		820 µF – 1 mF

Radial Aluminum Polymer

A750 105°C, 2.5 – 25 VDC

Capacitance Range: 47 to 1,500 µF • **Temperature Range:** −55°C to +105°C
Lifetime: 2,000 Hours

www.kemet.com/A750

A	750	EK	567	M	0E	AA	E020
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Single-Ended Conductive Polymer Solid Capacitor 105°C 2,000 Hour	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	2.5 = 0E 4 = 0G 6.3 = 0J 10 = 1A 16 = 1C 25 = 1E	See Ordering Options Table	Last 3 digits represent significant figures for ESR values.(mΩ)

Case Size	Voltage					
	2.5	4	6.3	10	16	25
5 x 7			220 µF – 330 µF			
5 x 9			390 µF			
6.3 x 8	560 µF	560 µF	470 µF – 560 µF	220 µF – 330 µF	100 µF – 220 µF	47 µF
8 x 8	1 mF		680 µF – 1 mF	470 µF – 560 µF	330 µF	100 µF
8 x 12			1.2 mF – 1.5 mF	680 µF – 820 µF	470 µF – 560 µF	220 µF – 330 µF
10 x 12				1 mF	820 µF – 1 mF	470 µF – 560 µF

A755 105°C, 2.5 – 25 VDC

Capacitance Range: 47 to 1,500 µF • **Temperature Range:** −55°C to +105°C
Lifetime: 5,000 Hours

www.kemet.com/A755

A	755	KS	687	M	0E	AA	E014
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Single-Ended Conductive Polymer Solid Capacitor 105°C 5,000 Hour	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	2.5 = 0E 4 = 0G 6.3 = 0J 10 = 1A 16 = 1C 20 = 1D 25 = 1E	See Ordering Options Table	Last 3 digits represent significant figures for ESR values. (mΩ)

Case Size	Voltage						
	2.5	4	6.3	10	16	20	25
5 x 11			220 µF				
8 x 12	680 µF – 820 µF	560 µF – 1.2 mF	680 µF – 1 mF	270 µF – 820 µF	270 µF	100 µF – 150 µF	47 µF – 220 µF
10 x 12	1.5 mF		1.5 mF	1 mF – 1.5 mF	470 µF – 1 mF		270 µF – 330 µF

Radial Aluminum Polymer (cont.)

A758 105°C, 2.5 – 25 VDC

Capacitance Range: 10 to 1,200 µF • **Temperature Range:** −55°C to +105°C
Lifetime: 5,000 Hours

www.kemet.com/A758

A	758	KS	687	M	0E	AA	E014
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Single-Ended Conductive Polymer Solid Capacitor 105°C 5,000 Hour	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	2.5 = 0E 4 = 0G 6.3 = 0J 10 = 1A 16 = 1C 20 = 1D 25 = 1E	See Ordering Options Table	Last 3 digits represent significant figures for ESR values. (mΩ)

Case Size	Voltage					
	2.5	4	6.3	10	16	25
5 x 7		220 µF – 270 µF	180 µF – 220 µF			10 µF
6.3 x 8	330 µF – 560 µF	330 µF – 560 µF	270 µF – 470 µF	100 µF – 180 µF	100 µF	22 µF – 33 µF
8 x 8	680 µF – 1.2 mF	680 µF – 820 µF	560 µF – 820 µF	220 µF	150 µF – 220 µF	

A759 125°C, 35 – 250 VDC

Capacitance Range: 2.2 to 680 µF • **Temperature Range:** −55°C to +125°C
Lifetime: 2,000 Hours

www.kemet.com/A759

A	759	BQ	106	M	1V	AA	E090
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Single-Ended Conductive Polymer Solid Capacitor 125°C 2,000 Hour	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	35 = 1V 50 = 1H 63 = 1J 100 = 2A 160 = 2C 250 = 2E	See Ordering Options Table	Last 3 digits represent significant figures for ESR values.(mΩ)

Case Size	Voltage					
	2.5	4	6.3	10	16	25
5 x 7			220 µF – 330 µF			
5 x 9			390 µF			
6.3 x 8	560 µF	560 µF	470 µF – 560 µF	220 µF – 330 µF	100 µF – 220 µF	47 µF
8 x 8	1 mF		680 µF – 1 mF	470 µF – 560 µF	330 µF	100 µF
8 x 12			1.2 mF – 1.5 mF	680 µF – 820 µF	470 µF – 560 µF	220 µF – 330 µF
10 x 12				1 mF	820 µF – 1 mF	470 µF – 560 µF

Radial Aluminum Polymer (cont.)

A765 105°C, 2.5 – 35 VDC

Capacitance Range: 2.5 to 35 µF • **Temperature Range:** −55°C to +105°C
Lifetime: 2,000 Hours

www.kemet.com/A765

A	765	EB	397	M	0E	LA	E020
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Suface Mount Conductive Polymer Solid Capacitor 105°C 2,000 Hour Ultra Low Impedance	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	2.5 = 0E 4 = 0G 6.3 = 0J 10 = 1A 16 = 1C 25 = 1E 35 = 1V	LA = Tape & Reel	Last 3 digits represent significant figures for ESR values. (mΩ)

Case Size	Voltage						
	2.5	4	6.3	10	16	25	35
5 x 6			100 µF				
5 x 7			220 µF				
6.3 x 5.7	390 µF		150 µF – 220 µF	150 µF	100 µF	47 µF	10 µF – 18 µF
6.3 x 7	470 µF		270 µF – 330 µF		150 µF		
6.3 x 8	560 µF						
6.3 x 9.7	680 µF						
8 x 7.5		560 µF	470 µF	330 µF	180 µF		
8 x 9.7	820 µF – 1.5 mF	680 µF – 1.2 mF	390 µF – 1.2 mF	180 µF – 270 µF	220 µF – 390 µF	56 µF – 100 µF	
10 x 12.6	2.7 mF	1.5 mF	1.5 mF	680 µF	470 µF – 1 mF	150 µF – 330 µF	

A767 105°C, 35 – 250 VDC

Capacitance Range: 35 to 50 µF • **Temperature Range:** −55°C to +105°C
Lifetime: 2,000 Hours

www.kemet.com/A767

A	765	EB	397	M	1H	LA	E015
Capacitor Class	Series	Size Code	Capacitance Code (pF)	Tolerance	Rated Voltage (VDC)	Packaging	ESR
A = Aluminum	Suface Mount Conductive Polymer Solid Capacitor 105°C 2,000 Hour High Voltage	See Dimension Table	First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added.	M = ±20%	35 = 1V 50 = 1H	LA = Tape & Reel	Last 3 digits represent significant figures for ESR values. (mΩ)

Case Size	Voltage	
	35	50
6.3 x 5.7	22 µF	
8 x 9.7	33 µF – 82 µF	18 µF – 56 µF
10 x 12.6	100 µF – 220 µF	82 µF – 100 µF

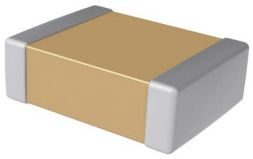
Ceramic Capacitors

Surface Mount

X7R Dielectric, 6.3 – 250 VDC

Capacitance Range: 10 pF to 47 µF • **Temperature Range:** −55°C to +125°C

www.kemet.com/X7R



C	0805	C	225	M	4	R	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)
	0402 0603 0805 1206 1210 1812 2220	C = Standard	Two significant digits + number of zeros.	J = ±5% K = ±10% M = ±20%	9 = 6.3 8 = 10 4 = 16 3 = 25 5 = 50 1 = 100 2 = 200 A = 250	R = X7R	A = N/A	C = 100% Matte Sn	See "Packaging C-Spec Ordering Options Table" below

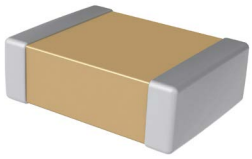
Case Size	Voltage								
	6.3	10	16	25	35	50	100	200	250
0402	10 pF – 0.1 µF	10 pF – 0.1 µF	10 pF – 0.1 µF	10 pF – 0.1 µF		10 pF – 0.022 µF			
0603	10 pF – 2.2 µF	10 pF – 2.2 µF	10 pF – 1 µF	10 pF – 1 µF		10 pF – 0.15 µF	10 pF – 0.047 µF	10 pF – 0.01 µF	
0805	10 pF – 10 µF	10 pF – 10 µF	10 pF – 4.7 µF	10 pF – 2.2 µF	10 pF – 1 µF	10 pF – 1 µF	10 pF – 0.22 µF	10 pF – 0.056 µF	180 pF – 0.022 µF
1206	10 pF – 22 µF	10 pF – 22 µF	10 pF – 10 µF	10 pF – 10 µF	10 pF – 4.7 µF	10 pF – 4.7 µF	10 pF – 1 µF	10 pF – 0.15 µF	1 nF – 0.1 µF
1210	10 pF – 47 µF	10 pF – 47 µF	10 pF – 22 µF	10 pF – 22 µF		10 pF – 10 µF	10 pF – 2.2 µF	10 pF – 0.22 µF	2.2 nF – 0.22 µF
1808						330 pF – 0.18 µF	330 pF – 0.056 µF	330 pF – 0.018 µF	
1812				470 pF – 10 µF		470 pF – 4.7 µF	470 pF – 3.3 µF	470 pF – 0.47 µF	6.8 nF – 0.47 µF
1825						3.9 nF – 2.2 µF	3.9 nF – 1 µF	3.9 nF – 1 µF	0.022 µF – 1 µF
2220				6.8 nF – 22 µF		6.8 nF – 15 µF	6.8 nF – 1 µF	0.082 µF – 1 µF	0.082 µF – 1 µF
2225						4.7 nF – 2.2 µF	4.7 nF – 1.2 µF	4.7 nF – 1.2 µF	0.1 µF – 1.2 µF

Surface Mount (cont.)

X5R Dielectric, 4 – 50 VDC

Capacitance Range: 0.01 to 100 µF • **Temperature Range:** −55°C to +125°C

www.kemet.com/X5R



C	1206	C	107	M	9	P	A	C	TU
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)
	0201 0402 0603 0805 1206 1210	C = Standard	Two significant digits + number of zeros.	K = ±10% M = ±20%	7 = 4 9 = 6.3 8 = 10 4 = 16 3 = 25 6 = 35 5 = 50	P = X5R	A = N/A	C = 100% Matte Sn	See "Packaging C-Spec Ordering Options Table" below

Case Size	Voltage						
	4	6.3	10	16	25	35	50
0201	0.01 µF – 0.1 µF	0.01 µF – 0.1 µF		0.01 µF			
0402	0.01 µF – 10 µF	0.01 µF – 10 µF	0.01 µF – 2.2 µF	0.01 µF – 1 µF			
0603	0.1 µF – 10 µF	0.1 µF – 10 µF	0.1 µF – 10 µF	0.1 µF – 2.2 µF	0.1 µF – 1 µF		
0805	0.47 µF – 47 µF	0.47 µF – 47 µF	0.47 µF – 22 µF	0.47 µF – 10 µF	0.47 µF – 10 µF		1 µF
1206		0.27 µF – 100 µF	0.27 µF – 47 µF	0.27 µF – 22 µF	0.27 µF – 10 µF		4.7 µF
1210		0.39 µF – 100 µF	0.39 µF – 100 µF	0.39 µF – 100 µF	0.39 µF – 22 µF	0.39 µF – 10 µF	1 µF – 10 µF
1812					10 µF		

KO-CAP®
Polymer Electrolytic Capacitors

KO-CAP® Polymer Electrolytic Capacitors

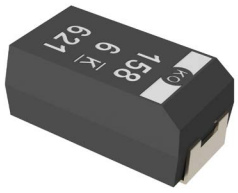
Electronic Components
KEMET
CHARGED.

Surface Mount

T520/T521/T545 Polymer Tantalum

Capacitance Range: 22 to 1,500 µF • **Energy Range:** 1.2 to 25.5 mJ
Temperature Range: −55°C to +105°C

www.kemet.com/T5x-SSD



T	548	V	157	M	016	A	T	E050	
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/ Design	Termination Finish	ESR	Packaging (C-Spec)
T = Tantalum	520 = Polymer 521 = High Voltage 523 = Facedown Terminal, Large Case 545 = High Energy 548 = High Energy, Facedown Terminal	B H J M O T V W X Y	First two digits represent significant figures. Third digit specifies number of zeros.	M = ±20%	006 = 6.3 010 = 10 016 = 16 020 = 20 035 = 35	A = N/A	T = 100% Matte Tin (Sn) plated P* = Ni-Pd-Au plated	ESR in mΩ	Blank = 7" Reel 7280 = 13"Reel

** P termination only available on T523 and T548 part numbers.*

Case Size	Voltage			
	6.3	10	16	20
T/3528 – 12	100 µF –150 µF		33 µF	
M/3528 – 15	150 µF			
B/3528 – 21	220 µF – 330 µF		22 µF	22 uF
W/7343 – 15	470 µF		47 µF	
V/7343 – 20	330 µF – 470µF	220 µF	47 µF – 100 µF	47 uF
Y/7343 – 40		330 µF		
X/7343 – 43	680 µF		150 µF – 330 µF	
J/7360 – 15		330 µF		
H/7360 – 20	1,000 µF – 1,500 µF	820 µF	180 µF	
O/7343 – 43			470 µF	

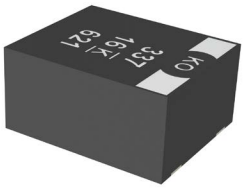
KO-CAP® Polymer Electrolytic Capacitors

Surface Mount (cont.)

T523/T548 Polymer Tantalum Facedown Terminal

Capacitance Range: 22 to 1,500 µF • **Energy Range:** 1.2 to 25.5 mJ
Temperature Range: −55°C to +105°C

www.kemet.com/T5x-SSD



T	548	V	157	M	016	A	T	E050	
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Failure Rate/ Design	Termination Finish	ESR	Packaging (C-Spec)
T = Tantalum	520 = Polymer 521 = High Voltage 523 = Facedown Terminal, Large Case 545 = High Energy 548 = High Energy, Facedown Terminal	B H J M O T V W X Y	First two digits represent significant figures. Third digit specifies number of zeros.	M = ±20%	006 = 6.3 010 = 10 016 = 16 020 = 20 035 = 35	A = N/A	T = 100% Matte Tin (Sn) plated P* = Ni-Pd-Au plated	ESR in mΩ	Blank = 7" Reel 7280 = 13"Reel

** P termination only available on T523 and T548 part numbers.*

Case Size	Voltage		
	6.3	16	35
W/7343 – 15	680 µF	68 µF – 100 µF	47 µF
V/7343 – 20	1,000 µF	150 µF	
J/7360 – 15		220 µF	
H/7360 – 20		330 µF – 470 µF	

Supercapacitors

Radial

HVZ, 2.5 V – 2.7 V, 60°C and 70°C

Capacitance Range: 1 to 200 F • **Temperature Range:** −25°C to +60°C and −25°C to +70°C

www.kemet.com/HVZ

HVZ	0E	105	N	F	-LT
Series	Maximum Operating Voltage	Capacitance Code (F)	Capacitance Tolerance	Environmental	Terminal
HVZ	0E = 2.7 VDC (50 F type has 2.5 VDC)	First two digits represent significant figures. Third digit specifies number of zeros.	N = ±30%	F = Lead-free	-LT = Snap-in Blank = Standard

Case Size	Voltage	
	2.5	2.7
8 x 12		1 F
8 x 22		2.7 F
10 x 20		4.7 F
10 x 35		10 F
12.5 x 35		22 F
18 x 40	50 F	
25 x 50		100 F
35 x 50		200 F

Electronic Components

KEMET

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

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