

KEMET SMD Ceramic Chip Capacitors Open-Mode Design

The Capacitance Company
KEMET
CHARGED!

KEMET OPEN MODE DESIGN WITH FLEXIBLE TERMINATION

DIMENSIONS: mm (in.)

Style	L	W	B	Dim. Thickness
0805	2.10(.083) + .30(.012) / - .20(.008)	1.25(.049)±.20(.008)	.50(.02)	90±10
1206	3.30(.130)±.40(.016)	1.60(.063)±.20(.008)	.60(.024)±.25(.010)	1.55±10
1210	3.30(.130)±.40(.016)	2.50(.098)±.20(.008)	.60(.024)±.25(.010)	
1812	3.30(.130)±.40(.016)	3.20(.126)±.30(.012)	.70(.028)±.35(.014)	

MOUSER STOCK NO.	Value (µF)	Volt (DC)	Tol. ±	Price Each			Reel Qty.	Price Per Piece
				1	100	500		
Style 0805 - Temperature Coef. X7R								
80-C0805J104K5RACTU	0.1	50	10	.18	.11	.10	4000	.09
Style 1206 - Temperature Coef. X7R								
80-C1206J225J4RACTU	0.22	16	5	.68	.58	.47	2500	.38
Style 1210 - Temperature Coef. X7R								
80-C1210J105J3RACTU	1	25	5	.96	.59	.53	2000	.46
Style 1812 - Temperature Coef. X7R								
80-C1812J105J1RACTU	1	100	5	3.53	2.17	1.95	1000	1.74

KEMET OPEN MODE DESIGN CAPACITORS

KEMET's open-mode ceramic surface mount capacitor is designed to significantly minimize the probability of a low IR or short circuit condition when forced to failure in a board flex situation.

Application Note:

- Input side filtering (power plane/bus)
- High current applications (battery line)
- Circuits that cannot be fused to open when short circuits occur due to flex cracks

Features (Exceptions):

- 0805 thickness target: .9mm (104 cap code=1.25mm)
- 1206 thickness target: .9mm (474 and 105 cap code=1.65mm)
- 1210 thickness target: 100v (474 cap code=1.85mm) 50V, 104 cap code=.95mm 50V, 474 cap code=1.25mm 50V, 684 cap code=1.55mm
- 1812 thickness target: 474 and 104, cap code=1.7mm 25V and 50V, 105 cap code=1.7mm 100V, 105 cap code=2.0mm
- Tolerance: 10%

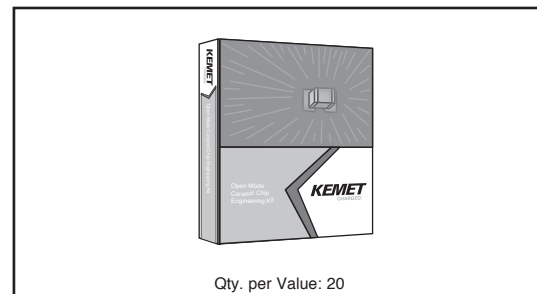
Electrical:

- Operating range -55°C to 125°C



MOUSER STOCK NO.	KEMET Part No.	Value (µF)	Volt (DC)	Dim. Thickness	Price Each		Reel Qty.	Price Per Piece
					1	100		
Style 0805 - Temperature Coef. X7R								
80-C0805F103K4R	C0805F103K4RACTU	0.01	16	90±10	.34	.18	4000	.052
80-C0805F103K5R	C0805F103K5RACTU	0.01	50	90±10	.34	.18	4000	.052
80-C0805F103K1R	C0805F103K1RACTU	0.01	100	90±10	.34	.22	4000	.06
80-C0805F103K2R	C0805F103K2RACTU	0.01	200	90±10	.35	.22	4000	.064
80-C0805F123K4R	C0805F123K4RACTU	0.012	16	90±10	.30	.19	4000	.044
80-C0805F123K5R	C0805F123K5RACTU	0.012	50	90±10	.30	.19	4000	.044
80-C0805F123K1R	C0805F123K1RACTU	0.012	100	90±10	.33	.22	4000	.061
80-C0805F153K4R	C0805F153K4RACTU	0.015	16	90±10	.30	.19	4000	.07
80-C0805F153K1R	C0805F153K1RACTU	0.015	100	90±10	.33	.22	4000	.06
80-C0805F183K4R	C0805F183K4RACTU	0.018	16	90±10	.30	.19	4000	.07
80-C0805F183K1R	C0805F183K1RACTU	0.018	100	90±10	.33	.22	4000	.061
80-C0805F223K3R	C0805F223K3RACTU	0.022	25	90±10	.32	.20	4000	.09
80-C0805F223K5R	C0805F223K5RACTU	0.022	50	90±10	.32	.20	4000	.09
80-C0805F223K1R	C0805F223K1RACTU	0.022	100	1.25±.15	.33	.21	2500	.066
80-C0805F273K4R	C0805F273K4RACTU	0.027	16	90±10	.30	.189	4000	.055
80-C0805F273K1R	C0805F273K1RACTU	0.027	100	1.25±.15	.37	.30	2500	.09
80-C0805F333K4R	C0805F333K4RACTU	0.033	16	90±10	.32	.22	4000	.07
80-C0805F333K5R	C0805F333K5RACTU	0.033	50	90±10	.32	.22	4000	.07
80-C0805F333K1R	C0805F333K1RACTU	0.033	100	1.25±.15	.34	.22	2500	.06
80-C0805F393K4R	C0805F393K4RACTU	0.039	16	90±10	.33	.21	4000	.061
80-C0805F393K1R	C0805F393K1RACTU	0.039	100	1.25±.15	.34	.22	2500	.06
80-C0805F474K3R	C0805F474K3RACTU	0.474	25	90±10	.41	.31	2500	.076
80-C0805F473K5R	C0805F473K5RACTU	0.047	50	90±10	.37	.22	4000	.063
80-C0805F563K4R	C0805F563K4RACTU	0.056	16	90±10	.33	.21	4000	.061
80-C0805F684K4R	C0805F684K4RACTU	0.68	16	90±10	.41	.31	2500	.076
80-C0805F683K5R	C0805F683K5RACTU	0.068	50	1.25±.15	.43	.11	2500	.069
80-C0805F823K4R	C0805F823K4RACTU	0.082	16	90±10	.45	.29	4000	.076
80-C0805F823K5R	C0805F823K5RACTU	0.082	50	1.25±.15	.45	.29	2500	.08
80-C0805F104K4R	C0805F104K4RACTU	0.1	16	1.25±.15	.41	.30	2500	.19
80-C0805F104K3R	C0805F104K3RACTU	0.1	25	1.25±.15	.41	.30	2500	.19
80-C0805F104K5R	C0805F104K5RACTU	0.1	50	1.25±.15	.51	.25	2500	.09
80-C0805F124K4R	C0805F124K4RACTU	0.12	16	1.25±.15	.55	.35	2500	.15
80-C0805F124K3R	C0805F124K3RACTU	0.12	25	1.25±.15	.62	.38	2500	.163
80-C0805F154K4R	C0805F154K4RACTU	0.15	16	1.25±.15	.59	.371	2500	.16
80-C0805F184K4R	C0805F184K4RACTU	0.18	16	1.25±.15	.65	.41	2500	.175
80-C0805F184K3R	C0805F184K3RACTU	0.18	25	1.25±.15	.72	.45	2500	.195
80-C0805F224K5R	C0805F224K5RACTU	0.22	50	1.25±.15	.41	.31	2500	.076
Style 1206 - Temperature Coef. X7R								
80-C1206F183K2R	C1206F183K2RACTU	0.018	200	90±10	.50	.33	4000	.19
80-C1206F473K4R	C1206F473K4RACTU	0.047	16	90±10	.38	.23	4000	.095
80-C1206F473K3R	C1206F473K3RACTU	0.047	25	90±10	.38	.23	4000	.095
80-C1206F473K5R	C1206F473K5RACTU	0.047	50	90±10	.38	.23	4000	.095
80-C1206F473K1R	C1206F473K1RACTU	0.05	100	90±10	.38	.21	4000	.074

KEMET OPEN MODE CERAMIC CAPACITOR ENGINEERING KIT



MOUSER STOCK NO.	Case Size	Volt	Values (µF)	Price Each
80-CERENKIT09	0805	25	0.47	52.00
		50	0.01, 0.047, 0.1, 0.22, 0.47	
		100	0.022	
	1206	50	0.22, 1.0	
		100	0.1	
1210	50	1		

DIMENSIONS: mm (in.)

Style	L	W	B	S
0805	2.0(.079)±.20(.008)	1.25(.049)±.20(.008)	0.5(.02)±.25(.010)	.75(.030)
1206	3.2(.126)±.20(.008)	1.6(.063)±.20(.008)	0.5(.02)±.25(.010)	N/A
1210	3.2(.126)±.20(.008)	2.5(.098)±.20(.008)	0.5(.02)±.25(.010)	N/A
1812	4.5(.177)±.30(.012)	3.2(.126)±.30(.012)	0.6(.024)±.035(.014)	N/A

MOUSER STOCK NO.	KEMET Part No.	Value (µF)	Volt (DC)	Dim. Thickness	Price Each		Reel Qty.	Price Per Piece
					1	100		
Style 1206 - Temperature Coef. X7R (Cont.)								
80-C1206F563K4R	C1206F563K4RACTU	0.056	16	90±10	.38	.243	4000	.121
80-C1206F563K1R	C1206F563K1RACTU	0.056	100	90±10	.54	.34	4000	.17
80-C1206F683K4R	C1206F683K4RACTU	0.068	16	90±10	.41	.26	4000	.13
80-C1206F683K1R	C1206F683K1RACTU	0.068	100	90±10	.58	.37	4000	.183
80-C1206F105K5R	C1206F105K5RACTU	1.0	50	1.60±.20	.45	.33	4000	.138
80-C1206F823K1R	C1206F823K1RACTU	0.082	100	90±10	.62	.39	4000	.194
80-C1206F104K4R	C1206F104K4RACTU	0.1	16	90±10	.47	.30	4000	.155
80-C1206F104K3R	C1206F104K3RACTU	0.1	25	90±10	.38	.23	4000	.079
80-C1206F104K5R	C1206F104K5RACTU	0.1	50	90±10	.47	.30	4000	.089
80-C1206F104K1R	C1206F104K1RACTU	0.1	100	90±10	.52	.31	4000	.108
80-C1206F124K4R	C1206F124K4RACTU	0.12	16	90±10	.50	.32	4000	.158
80-C1206F124K1R	C1206F124K1RACTU	0.12	100	90±10	.68	.44	4000	.149
80-C1206F154K1R	C1206F154K1RACTU	0.015	100	1.60±.15	.69	.45	2000	.137
80-C1206F224K4R	C1206F224K4RACTU	0.22	16	90±10	.83	.52	4000	.26
80-C1206F224K5R	C1206F224K5RACTU	0.22	50	90±10	.59	.37	4000	.132
80-C1206F274K5R	C1206F274K5RACTU	0.27	50	90±10	.59	.37	4000	.132
80-C1206F474K4R	C1206F474K4RACTU	0.47	16	1.60±.15	1.05	.69	4000	.17
80-C1206F474K3R	C1206F474K3RACTU	0.47	25	1.60±.15	1.05	.69	4000	.17
80-C1206F105K4R	C1206F105K4RACTU	1.0	16	1.60±.15	1.24	1.04	2000	.244
Style 1210 - Temperature Coef. X7R								
80-C1210F104K1R	C1210F104K1RACTU	0.1	100	.95±.10	.90	.59	4000	.15
80-C1210F104K2R	C1210F104K2RACTU	0.1	200	1.25±.15	1.12	.73	2500	.20
80-C1210F224K5R	C1210F224K5RACTU	0.22	50	.95±.10	.84	.52	4000	.189
80-C1210F224K1R	C1210F224K1RACTU	0.22	100	1.25±.15	1.34	.87	2500	.24
80-C1210F334K1R	C1210F334K1RACTU	0.33	100	1.55±.15	1.95	1.27	2000	.35
80-C1210F474K5R	C1210F474K5RACTU	0.47	50	1.25±.15	.92	.62	4000	.25
80-C1210F474K1R	C1210F474K1RACTU	0.47	100	1.85±.20	2.24	1.46	2000	.40
80-C1210F684K5R	C1210F684K5RACTU	0.68	50	1.55±.15	.92	.62	2000	.26
80-C1210F105K4R	C1210F105K4RACTU	1.0	16	.95±.10	1.90	1.23	4000	.30
80-C1210F105K3R	C1210F105K3RACTU	1.0	25	1.55±.15	1.90	1.23	2000	.34
80-C1210F105K5R	C1210F105K5RACTU	1.0	50	1.85±.20	.92	.62	2000	.26
80-C1210F225K4R	C1210F225K4RACTU	2.20	16	1.85±.20	1.59	1.03	2000	.29
Style 1812 - Temperature Coef. X7R								
80-C1812F104K5R	C1812F104K5RACTU	0.1	50	1.0±.10	1.60	1.04	1000	.50
80-C1812F104K1R	C1812F104K1RACTU	0.1	100	1.0±.10	1.66	1.20	1000	.37
80-C1812F104K2R	C1812F104K2RACTU	0.1	200	1.0±.10	2.01	1.45	1000	.45
80-C1812F224K2R	C1812F224K2RACTU	0.22	200	1.1±.10	2.01	1.45	1000	.45
80-C1812F474K3R	C1812F474K3RACTU	0.47	25	1.0±.10	1.95	1.41	1000	.43
80-C1812F474K5R	C							