

# CDE Multilayer Clad SMD RF Capacitors, High Current



Types MCM and MIN SMD clad multilayer RF capacitors are top performers for high power applications requiring low inductance at high frequencies and can operate at temperatures up to 200°C and voltages to 1000VDC.

Thermal Spreading, robust natural materials and a CTE compatible with FR4 make these capacitors an excellent choice to replace more expensive porcelain capacitors.

### Common Features:

- 200°C rated with no voltage derating
- Low ESR for RF power applications
- Wave solderable
- CTE ≈ 18
- No cracking / delaminating
- Nonmagnetic for minimal RF loss
- Very low ESL for excellent by-pass action
- Available on T&R
- Ultra stable - no change with (t), (V) and (f)
- Exact capacitance values ±0.5pF up to 1000VDC

## CORNELL DUBILIER MIN SERIES

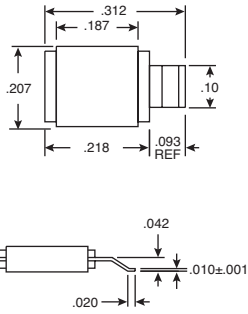


RoHS Compliant

### Specifications:

- Voltage Rating: 300VDC
- Temperature Range: -55°C to +200°C with no voltage derating
- Dielectric Strength: 200% of rated voltage for 5 seconds
- Insulation Resistance: 1000MΩ - μF Need not exceed 100,000MΩ at 25°C
- Typical Thickness: .065 - .125 (±0.015)
- Wave solderable
- Typical ESR <10mΩ @ 100 MHz (100pF)

### DIMENSIONS: in.



For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	CDE Part No.	VDC	Capacitance (pF)	Tolerance (±)	Dielectric Material	Price Each			
						1	10	25	50
5981-MIN02-3.3D-F	MIN02-002C3R3D-F	300	3.3	0.5 pF	Teflon	2.12	1.77	1.57	1.30
5981-MIN02-4.7D-F	MIN02-002C4R7D-F	300	4.7	0.5 pF	Teflon	1.96	1.62	1.47	1.21
5981-MIN02-6.8D-F	MIN02-002C6R8D-F	300	6.8	0.5 pF	Teflon	2.01	1.67	1.48	1.22
5981-MIN02-10J-F	MIN02-002CC100J-F	300	10	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-12J-F	MIN02-002CC120J-F	300	12	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-15J-F	MIN02-002CC150J-F	300	15	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-17J-F	MIN02-002CC170J-F	300	17	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-18J-F	MIN02-002CC180J-F	300	18	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-20J-F	MIN02-002CC200J-F	300	20	5%	Mica	1.92	1.59	1.44	1.18
5981-MIN02-22J-F	MIN02-002DC220J-F	300	22	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-24J-F	MIN02-002DC240J-F	300	24	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-25J-F	MIN02-002DC250J-F	300	25	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-27J-F	MIN02-002DC270J-F	300	27	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-30J-F	MIN02-002DC300J-F	300	30	5%	Mica	1.92	1.59	1.44	1.18
5981-MIN02-32J-F	MIN02-002DC320J-F	300	32	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-33J-F	MIN02-002DC330J-F	300	33	5%	Mica	1.87	1.56	1.39	1.14
5981-MIN02-35J-F	MIN02-002DC350J-F	300	35	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-36J-F	MIN02-002DC360J-F	300	36	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-39J-F	MIN02-002DC390J-F	300	39	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-43J-F	MIN02-002DC430J-F	300	43	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-47J-F	MIN02-002DC470J-F	300	47	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-50J-F	MIN02-002DC500J-F	300	50	5%	Mica	1.96	1.63	1.45	1.19
5981-MIN02-70J-F	MIN02-002EC700J-F	300	70	5%	Mica	2.75	2.29	2.04	1.68
5981-MIN02-82J-F	MIN02-002EC820J-F	300	82	5%	Mica	2.75	2.29	2.04	1.68
5981-MIN02-100J-F	MIN02-002EC101J-F	300	100	5%	Mica	2.75	2.29	2.04	1.68
5981-MIN02-350J-F	MIN02-002EC351J-F	300	350	5%	Mica	5.02	4.19	3.72	3.07

### Engineering Design Kit

MOUSER STOCK NO.	Description	Voltage	Value (pF)	Price Each	
				1	10
5981-MIN300VKIT1	5 each of 13 values	300	3.3-150	42.10	38.13

## CORNELL DUBILIER MCM SERIES

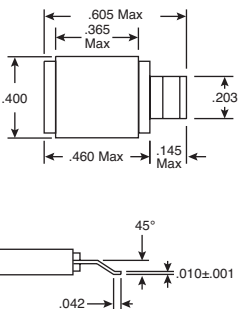


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- Insulation Resistance: 1000MΩ - μF Need not exceed 100,000MΩ at 25°C
- Typical Thickness: .095 - .125 (±0.015)
- Wave solderable
- Typical I<sub>RMS</sub> >20 Amps @ 100 MHz

### DIMENSIONS: in.



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MOUSER STOCK NO.	CDE Part No.	VDC	Capacitance (pF)	Tolerance (±)	Dielectric Material	Price Each			
						1	10	25	50
5981-MCM01-1500J-F	MCM01-009EC152J-F	300	1500	5%	Mica	7.37	6.16	5.46	4.51
5981-MCM01-3.3D-F	MCM01-009D3R3D-F	500	3.3	0.5 pF	Teflon	3.29	2.74	2.43	2.01
5981-MCM01-4.7D-F	MCM01-009D4R7D-F	500	4.7	0.5 pF	Teflon	3.29	2.74	2.43	2.01
5981-MCM01-10J-F	MCM01-009DC100J-F	500	10	5%	Mica	2.32	1.94	1.72	1.42
5981-MCM01-15J-F	MCM01-009CD150J-F	500	15	5%	Mica	2.32	1.94	1.72	1.42
5981-MCM01-22J-F	MCM01-009DD220J-F	500	22	5%	Mica	2.39	1.98	1.80	1.47
5981-MCM01-47J-F	MCM01-009D470J-F	500	47	5%	Mica	2.27	1.89	1.68	1.39
5981-MCM01-100J-F	MCM01-009ED101J-F	500	100	5%	Mica	2.27	1.89	1.68	1.39
5981-MCM01-150J-F	MCM01-009ED151J-F	500	150	5%	Mica	2.27	1.89	1.68	1.39
5981-MCM01-220J-F	MCM01-009ED221J-F	500	220	5%	Mica	2.27	1.89	1.68	1.39
5981-MCM01-330J-F	MCM01-009ED331J-F	500	330	5%	Mica	4.00	3.34	2.97	2.45
5981-MCM01-470J-F	MCM01-009ED471J-F	500	470	5%	Mica	3.74	3.12	2.77	2.29
5981-MCM01-560J-F	MCM01-009ED561J-F	500	560	5%	Mica	4.29	3.59	3.18	2.63
5981-MCM01-750J-F	MCM01-009ED751J-F	500	750	5%	Mica	4.29	3.59	3.18	2.63
5981-MCM01-1000J-F	MCM01-009ED102J-F	500	1000	5%	Mica	5.94	4.96	4.40	3.64
5981-MCM01-1200J-F	MCM01-009ED122J-F	500	1200	5%	Mica	6.46	5.40	4.79	3.95
5981-MCM01-F3.3D-F	MCM01-009F3R3D-F	1000	3.3	0.5 pF	Teflon	4.87	4.07	3.61	2.98
5981-MCM01-F4.7D-F	MCM01-009F4R7D-F	1000	4.7	0.5 pF	Teflon	4.87	4.07	3.61	2.98
5981-MCM01-F6.8D-F	MCM01-009F6R8D-F	1000	6.8	0.5 pF	Teflon	4.87	4.07	3.61	2.98
5981-MCM01-CF10J-F	MCM01-009CF100J-F	1000	10	5%	Mica	3.35	2.80	2.48	2.05
5981-MCM01-CF15J-F	MCM01-009CF150J-F	1000	15	5%	Mica	3.35	2.80	2.48	2.05
5981-MCM01-DF22J-F	MCM01-009DF220J-F	1000	22	5%	Mica	2.69	2.25	2.00	1.65
5981-MCM01-EF150J-F	MCM01-009EF151J-F	1000	150	5%	Mica	3.86	3.22	2.86	2.36
5981-MCM01-EF330J-F	MCM01-009EF331J-F	1000	330	5%	Mica	4.73	3.95	3.51	2.89
5981-MCM01-EF470J-F	MCM01-009EF471J-F	1000	470	5%	Mica	4.73	3.95	3.51	2.89

### Engineering Design Kit

MOUSER STOCK NO.	Description	Voltage	Value (pF)	Price Each	
				1	10
598-MCM500VKIT2	5 each of 10 values	500	10-1000	56.06	50.78
598-MCM1000VKIT3	5 each of 7 values	1000	100-750	62.54	56.65

