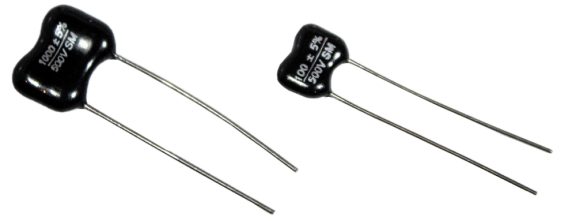




SIMIC ELECTRONICS PVT. LTD.

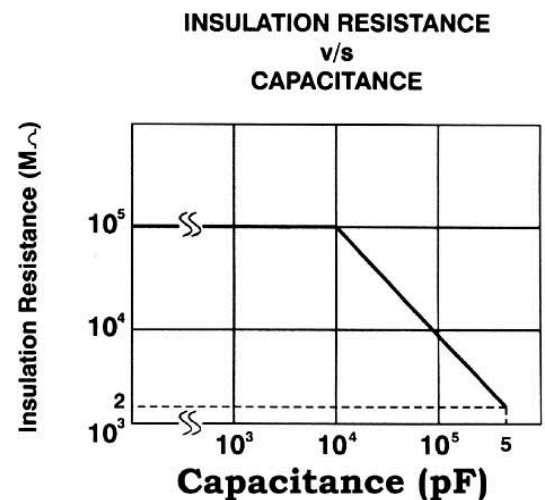
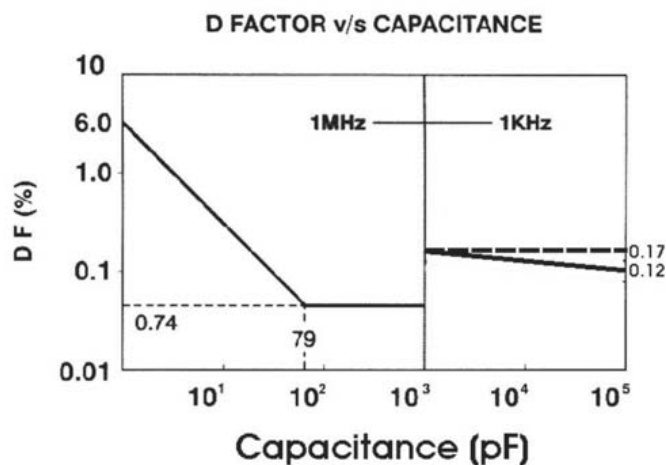
SINCE 1981



Simic Dipped Silver Mica Capacitors Specifications

Specifications

- Capacitance value measured at 1 MHz will be within tolerance limits.
- Capacitors will withstand two times the rated voltage for one to five seconds without arcing. The charging current is limited to 50 mA.
- Insulation resistance will be greater than 100,000 megaohms when measured at 100V DC.
- D.F. as per graph below.



- (for C < 80 pf and C > 1000 pf)
- Operating temperature (-) 55° C to (+) 125° C.
- Temperature Coefficient - C, D, E, F (table below)

#	TEMPERATURE COEFFICIENT PPM/ °C	CAPACITOR DRIFT
C	-200 to +200	+/- (0.5%+0.1pf)
D	-100 to +100	+/- (0.3%+0.1pf)
E	-20 to +100	+/- 0.1%+0.1pf
F	0 to 70	+/- 0.5%+0.1pf
C std 1-18pF; E std for 20-82pF; F std for 91 pF and up.		

Case Style/Series

Capacitance Range			MIL Equivalent	
Case Style	Commercial	MIL	Straight Leads	Crimped Leads
DM5	1-390	-----	none	none
DM10	1-470	1-390	CM04	CM09
DM12	1-1500	-----	none	none
DM15	1-1200	1-390	CM05	CM10
DM19	100-8200	430-4700	CM06	CM11
DM20	680-12000	-----	none	none
DM30	5100-20000	5100-20000	CM07	CM12
DM42	16000-100000	22000-62000	CM08	CM13
VDM16	1-1000	-----	none	none

Simic Dipped Mica Capacitors are designed to meet the exacting physical, electrical and environmental requirements of the MIL-C-5 and RS-153 specifications.

It is well known that natural mica is extremely stable against heat. Simic Capacitors are manufactured from selected Indian ruby muscovite mica having optimum electrical characteristics. Silvered mica is made by printing electrodes on mica film with special silver paste. The silvered films are stacked to the desired value interleaved with metal foils for contact. Then the terminals are clamped on to the element. (The terminals are copper clad steel wires finished with a solder coating for good solderability). The clamped unit is either dipped under vacuum in epoxy resin and coated with epoxy powder conformally or dipped in phenolic resin and vacuum impregnated with liquid epoxy resin. The envelope thus formed gives high moisture and heat resistance to the unit. This design ensures high reliability and stability.

Careful selection of raw materials and constant monitoring of all equipment and processes provides an overall uniform level of quality consistent with the stringent requirements of today's most sophisticated electronic equipment.

Special compact types: Among the many capacitor types manufactured DM5 type features an extremely small size. A single coat available in all the types. The very thin coating assures high installation density. However, for thin types additional moisture proof sealing under high humidity condition.

Capacitance Range

1pF through 100000pF in case styles DM5 through DM42

Voltage Range

50VDCW through 500 VDCW higher voltages on request

Operating Temperature

150°C at full rated voltage

Simic dipped micas are permanently marked in a manner designed to withstand the environment requirements of the applicable MIL and EIA specifications, as also the permanency and durability requirements of MIL-M-13231.

Parts supplied to the military specification will bear full, or abbreviated, military designation as required by MIL-C-5.

DM15	F	D	181	J	O	3	-	RH
STYLE		WORKING VOLTAGE	CAPACITANCE		TEMPERATURE RANGE			
		A- 100 V DC C- 300 V DC D- 500 V DC F- 1000 V DC			O- -55°C to + 125°C P- -55°C to + 150°C			
CHARACTERISTIC			CAPACITANCE TOLERANCE			VIBRATION GRADE	BULK PACKING	ROHS COMPLIANT
			D - ± 0.5pF			FREQUENCY 10Hz TO 2KHz		
			K - ± 10%					
			J - ± 5%					
			G - ± 2 %					
			F - ± 1%					
			E - ± ½%					

Indicated by letters DM or CM followed by two digits identifying case size.

Identified by a single letter indicating stability with change in temperature.

Capacitance

Normal capacitance is expressed in pF and is identified by a three number digit. The first two digits represent significant figures. The third digit indicates the number of digits to follow (sometimes referred to as the decimal multiplier). Where a third significant figure is required a four-digit number would be applied. The first three would indicate significant figures. Example: 020 = 2pF; 250 = 25pF; 251 = 250pF; 252 = 2500pF; 103 = 10000pF.

Leads

All Simic dipped mica capacitors are manufactured with copper-clad steel leads. The copper-clad leads are annealed and manufactured with steel wire SAE 1010 or SAE 1006; having a 30% minimum conductivity copper coating. The leads are finished with 100% tin coating, having a minimum thickness of 0.0001" (0.00254mm).

Normal production is supplied with straight radial leads. Crimped and/or cut variations are available on order. Capacitors with working voltage of 1000 VDC, 2500 VDC are available on order. Maximum lead length is 35 mm (+/- 2mm).

Special Features

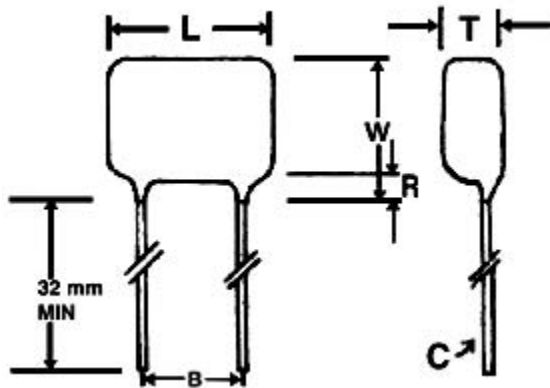
Features provided at our customer's request.

- Metallurgical bonding.
- Thin coat (single dip) for high installation density.
- Crimped and cut leads.
- Crimped and cut leads with tape and reel package.

Certifications

- ISO 9001:2015
- RoHS
- REACH

Sizing



DIM	DM5	DM10	DM15	DM19	DM20	DM30	DM42
B	3.05 ±.79	3.57 ±.79	5.95 ±.79	8.73 ±.79	11.11 ±.79	11.11 ±.79	26.99 ±.79
C	#26 (0.4039)	#26 (0.4039)	#22 (0.635)	#20 (0.813)	#20 (0.813)	#18 (1.016)	#18 (1.016)
R	1.98 MAX	1.98 MAX	1.98 MAX	3.18 MAX	3.18 MAX	3.18 MAX	3.18 MAX

DM15 Standard Coat			
Capacitance Value In pF	500 W V		
	L	W	T
	Maximum		
1-62	11.43	9.14	4.32
75-82	11.43	9.14	4.57
91-100	11.68	9.14	4.57
110-130	11.68	9.4	4.57
150-180	11.68	9.4	4.83
200	11.68	9.65	4.83
220-240	11.68	9.65	5.08
270-390	11.94	9.91	5.33
430	11.94	9.91	5.33
470-510	11.94	10.16	5.59
560-620	12.19	10.41	5.84
680	12.45	10.67	6.1
750	12.7	10.92	6.35
820			

910			
1000			
1100			
1200			
All Dimensions in Mm			

DM19 Standard Coat			
Capacitance Value In pF	500 W V		
	L	W	T
	Maximum		
100-300	16.26	12.7	4.83
360-470	16.26	12.95	5.08
510-620	16.51	12.95	5.08
680-910	16.51	12.95	5.33
1000-1100	16.51	13.21	5.59
1200-1300	16.76	13.21	5.59
1500	16.76	13.21	5.84
1600	16.76	13.46	5.84
1800-2000	17.02	13.46	6.1
2200	17.02	13.46	6.35
2400	17.02	13.72	6.6
2700	17.27	13.72	6.86
3000	17.27	13.97	7.11
3300	17.27	13.97	7.37
3600	17.27	14.22	7.62
3900	17.53	14.22	7.87
4300	17.53	14.48	8.38
4700	17.78	14.73	8.89
5100	18.03	14.99	9.4
5600			
6200			
6800			
7500			
8200			
All Dimensions in Mm			

DM30 Standard Coat			
Capacitance Value In pF	500 W V		
	L	W	T
	Maximum		
5100	19.81	21.84	7.11
5600-6200	19.81	22.1	7.37
6800	19.81	22.1	7.62
7500	20.07	22.35	7.87
8200	20.07	22.35	8.13
9100	20.07	22.35	8.38
10000	20.32	22.61	8.64

11000	20.32	22.61	8.89
12000	20.32	22.61	9.14
13000	20.57	22.61	9.4
15000	20.57	22.86	9.91
16000	20.83	22.86	10.41
18000	20.83	23.11	10.92
20000	21.08	23.37	11.43
All Dimensions in Mm			

Actual Dimensions of Simic Dipped Silver Mica Capacitors
Inventory of JustRadios – Capacitors & Resistors (Authorized Dealer)

500V 5%	Case Style	(L) width	(T) thickness	(W) hight
		(+/- 0.9mm)	(+/- 0.9mm)	(+/- 0.9mm)
1 pF +/- .5pF	DM15	11.0	3.8	8.5
2 pF +/- .5pF	DM15	11.0	3.8	8.5
3 pF +/- .5pF	DM15	11.0	3.8	8.5
4 pF +/- .5pF	DM15	11.0	3.8	8.5
5 pF +/- .5pF	DM15	11.0	3.8	8.5
6 pF +/- .5pF	DM15	11.0	3.8	8.5
7 pF +/- .5pF	DM15	11.0	3.8	8.5
8 pF +/- .5pF	DM15	11.0	3.8	8.5
9 pF +/- .5pF	DM15	11.0	3.8	8.5
10 pF +/- .5pF	DM15	11.0	3.8	8.5
11 pF 5%	DM15	11.0	3.8	8.5
12 pF 5%	DM15	11.0	3.8	8.5
15 pF 5%	DM15	11.0	3.8	8.5
18 pF 5%	DM15	11.0	3.8	8.5
20 pF 5%	DM15	11.0	3.8	8.5
22 pF 5%	DM15	11.0	3.8	8.5
25 pF 5%	DM15	11.0	3.8	8.5
27 pF 5%	DM15	11.0	3.8	8.5
30 pF 5%	DM15	11.0	3.8	8.5
33 pF 5%	DM15	11.0	3.9	8.5
39 pF 5%	DM15	11.0	3.9	8.5
40 pF 5%	DM15	11.0	3.9	8.5
47 pF 5%	DM15	11.0	3.9	8.5
50 pF 5%	DM15	11.0	4.0	8.5
56 pF 5%	DM15	11.0	4.0	8.5
62 pF 5%	DM15	11.0	4.0	8.5
68 pF 5%	DM15	11.1	4.0	8.5
70 pF 5%	DM15	11.1	4.0	8.5
75 pF 5%	DM15	11.1	4.0	8.5
82 pF 5%	DM15	11.1	4.0	8.5
100 pF 5%	DM15	11.1	4.0	8.5
110 pF 5%	DM15	11.1	4.0	8.5
120 pF 5%	DM15	11.1	4.0	8.5

130 pF 5%	DM15	11.1	4.0	8.5
150 pF 5%	DM15	11.1	4.3	8.5
160 pF 5%	DM15	11.1	4.3	8.5
180 pF 5%	DM15	11.4	4.3	8.5
200 pF 5%	DM15	11.4	4.3	8.5
220 pF 5%	DM15	11.4	4.3	8.5
240 pF 5%	DM15	11.4	4.3	8.5
250 pF 5%	DM15	11.4	4.5	8.5
270 pF 5%	DM15	11.4	4.5	8.5
300 pF 5%	DM15	11.4	4.5	8.5
330 pF 5%	DM15	11.6	4.5	8.5
350 pF 5%	DM15	11.6	4.5	8.5
360 pF 5%	DM15	11.6	4.5	8.5
390 pF 5%	DM15	11.6	4.7	8.5
400 pF 5%	DM15	11.6	4.7	8.5
430 pF 5%	DM15	11.6	4.7	8.5
470 pF 5%	DM15	11.6	4.8	8.5
500 pF 5%	DM15	11.6	4.8	8.5
510 pF 5%	DM19	15.6	4.8	12.5
560 pF 5%	DM19	15.6	4.8	12.5
600 pF 5%	DM19	15.6	4.8	12.5
680 pF 5%	DM19	15.6	4.8	12.5
700 pF 5%	DM19	15.6	4.8	12.5
750 pF 5%	DM19	15.6	4.8	12.5
800 pF 5%	DM19	15.9	4.8	12.5
820 pF 5%	DM19	15.9	4.8	12.5
900 pF 5%	DM19	15.9	4.8	12.5
910 pF 5%	DM19	15.9	4.8	12.5
950 pF 5%	DM19	16.4	4.8	12.5
1000 pF 5%	DM19	16.4	4.8	12.5
1100 pF 5%	DM19	16.4	4.8	12.5
1200 pF 5%	DM19	16.4	4.8	12.5
1300 pF 5%	DM19	16.4	4.8	12.5
1400 pF 5%	DM19	16.4	5.2	12.5
1500 pF 5%	DM19	16.6	5.2	12.5
1600 pF 5%	DM19	16.6	5.2	12.5
1700 pF 5%	DM19	16.6	5.2	12.5
1800 pF 5%	DM19	16.6	5.2	12.5
2000 pF 5%	DM19	17.1	5.6	12.5
2200 pF 5%	DM19	17.1	5.6	12.5
2400 pF 5%	DM19	17.1	5.6	12.5
2500 pF 5%	DM19	17.1	5.6	13.0
2700 pF 5%	DM19	17.1	5.6	13.0
2800 pF 5%	DM19	17.3	5.8	13.0
3000 pF 5%	DM19	17.3	5.8	13.0
3300 pF 5%	DM19	17.3	5.5	13.0
3600 pF 5%	DM19	17.3	6.3	13.0
4000 pF 5%	DM19	17.3	6.6	13.0
4700 pF 5%	DM19	17.3	6.9	13.0
5000 pF 5%	DM19	17.3	7.1	13.0
5100 pF 5%	DM19	17.3	7.3	13.0
6200 pF 5%	DM30	19.8	6.8	21.5

6800 pF 5%	DM30	19.8	6.5	21.5
8200 pF 5%	DM30	19.8	7.3	21.5
10000 pF 5%	DM30	19.8	7.3	21.5
500 Volt 1% and 2% Dipped Silver Mica				
27 pF 2%	DM15	11.1	3.8	8.5
30 pF 2%	DM15	11.1	3.8	8.5
33 pF 2%	DM15	11.1	3.8	8.5
36 pF 2%	DM15	11.1	3.8	8.5
39 pF 2%	DM15	11.1	3.8	8.5
40 pF 2%	DM15	11.1	3.9	8.5
43 pF 2%	DM15	11.1	3.9	8.5
47 pF 2%	DM15	11.1	3.9	8.5
50 pF 1%	DM15	11.1	3.9	8.5
51 pF 1%	DM15	11.1	3.9	8.5
56 pF 1%	DM15	11.1	3.9	8.5
62 pF 1%	DM15	11.1	3.9	8.5
68 pF 1%	DM15	11.1	3.9	8.5
75 pF 1%	DM15	11.1	3.9	8.5
82 pF 1%	DM15	11.1	3.9	8.5
91 pF 1%	DM15	11.1	3.9	8.5
95 pF 1%	DM15	11.1	4.0	8.5
100 pF 1%	DM15	11.3	4.0	8.5
110 pF 1%	DM15	11.3	4.0	8.5
120 pF 1%	DM15	11.3	4.0	8.5
130 pF 1%	DM15	11.3	4.0	8.5
150 pF 1%	DM15	11.3	4.0	8.5
160 pF 1%	DM15	11.3	4.0	8.5
180 pF 1%	DM15	11.3	4.0	8.5
200 pF 1%	DM15	11.3	4.3	8.5
220 pF 1%	DM15	11.3	4.3	8.5
240 pF 1%	DM15	11.3	4.3	8.5
250 pF 1%	DM15	11.5	4.3	8.5
270 pF 1%	DM15	11.5	4.3	8.5
300 pF 1%	DM15	11.5	4.3	8.5
330 pF 1%	DM15	11.5	4.3	8.5
350 pF 1%	DM15	11.5	4.3	8.5
360 pF 1%	DM15	11.5	4.3	8.5
390 pF 1%	DM15	11.5	4.5	8.5
400 pF 1%	DM15	11.5	4.5	8.5
430 pF 1%	DM15	11.5	4.5	8.5
470 pF 1%	DM15	11.5	4.5	8.5
500 pF 1%	DM15	11.5	4.5	8.5
510 pF 1%	DM19	15.4	4.5	12.5
560 pF 1%	DM19	15.4	4.5	12.5
600 pF 1%	DM19	15.4	4.7	12.5
620 pF 1%	DM19	15.4	4.7	12.5
680 pF 1%	DM19	15.4	4.7	12.5
700 pF 1%	DM19	15.6	4.8	12.5
750 pF 1%	DM19	15.7	4.8	12.5
800 pF 1%	DM19	15.8	4.8	12.5
820 pF 1%	DM19	15.7	4.8	12.5
900 pF 1%	DM19	15.7	4.8	12.5

910 pF 1%	DM19	15.5	4.8	12.5
1000 pF 1%	DM19	15.8	4.8	12.5
1000 Volt 5% Dipped Silver Mica				
5 pF	DM19	15.0	4.4	12.5
10 pF	DM19	15.0	4.4	12.5
12 pF	DM19	15.0	4.4	12.5
15 pF	DM19	15.0	4.4	12.5
18 pF	DM19	15.3	4.4	12.5
20 pF	DM19	15.3	4.4	12.5
22 pF	DM19	15.3	4.4	12.5
25 pF	DM19	15.3	4.4	12.5
27 pF	DM19	15.3	4.4	12.5
30 pF	DM19	15.3	4.4	12.5
33 pF	DM19	15.3	4.0	12.5
39 pF	DM19	15.3	4.0	12.5
40 pF	DM19	15.3	4.2	12.5
47 pF	DM19	15.3	4.2	12.5
50 pF	DM19	15.3	4.2	12.5
56 pF	DM19	15.3	4.2	12.5
62 pF	DM19	15.3	4.2	12.5
68 pF	DM19	15.3	4.2	12.5
70 pF	DM19	15.3	4.2	12.5
75 pF	DM19	15.3	4.3	12.5
82 pF	DM19	15.3	4.3	12.5
91 pF	DM19	15.3	4.3	12.5
100 pF	DM19	15.3	4.5	12.5
110 pF	DM19	15.3	4.5	12.5
120 pF	DM19	15.3	4.5	12.5
130 pF	DM19	15.3	4.5	12.5
150 pF	DM19	15.3	4.5	12.5
160 pF	DM19	15.3	4.5	12.5
180 pF	DM19	15.5	4.5	12.5
200 pF	DM19	15.5	4.5	12.5
220 pF	DM19	15.5	4.5	12.5
240 pF	DM19	15.5	4.5	12.5
250 pF	DM19	15.5	4.5	12.5
270 pF	DM19	15.5	4.5	12.5
300 pF	DM19	15.5	4.5	12.5
330 pF	DM19	15.5	4.5	12.5
350 pF	DM19	15.5	4.5	12.5
360 pF	DM19	15.5	4.5	12.5
390 pF	DM19	15.9	4.5	12.5
400 pF	DM19	15.9	4.5	12.5
430 pF	DM19	15.9	4.5	12.5
470 pF	DM19	15.9	4.7	12.5
500 pF	DM19	16.3	4.7	12.5
560 pF	DM19	16.3	4.7	12.5
600 pF	DM19	16.3	4.7	12.5
620 pF	DM19	16.3	4.7	12.5
680 pF	DM19	16.3	4.7	12.5
700 pF	DM19	16.3	5.1	12.5
750 pF	DM19	16.5	5.1	12.5

800 pF	DM19	16.1	5.1	12.5
820 pF	DM19	16.3	5.1	12.5
900 pF	DM19	16.0	5.1	12.5
910 pF	DM19	16.0	5.5	12.5
1000 pF	DM19	16.0	5.5	12.5

The above prepared by D.Cantelon of JustRadios (Dec 2024)