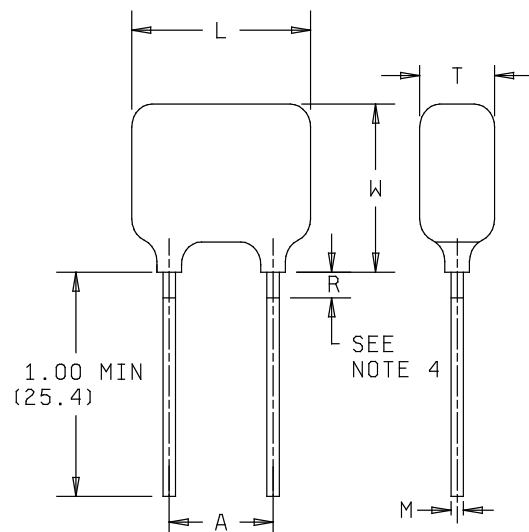


PERFORMANCE SPECIFICATION SHEET

CAPACITORS, FIXED, MICA DIELECTRIC, ESTABLISHED RELIABILITY, STYLES CMR03, CMR04, CMR05, CMR06, CMR07, AND CMR08

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein
shall consist of this specification and [MIL-PRF-39001](#).



NOTES:

1. Dimensions are in inches (see [table I](#)).
2. Millimeters are in parenthesis (see [table I](#)).
3. Metric equivalents (to the nearest .01 mm) are given for general information only.
4. The "R" dimension may not be solderable as it may be covered by a clear epoxy or resinous coating.

FIGURE 1. Styles CMR03, CMR04, CMR05, CMR06, CMR07, and CMR08 capacitors.

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TABLE 1. Dimensions.

STYLE CMR03												
Capacitance (pF)	300 V			100 V			50 V			300 V, 100 V, and 50 V		
	L	W	T	L	W	T	L	W	T	R MAX	A spacing	M DIA
	MAXIMUM			MAXIMUM			MAXIMUM				±.031 (.79)	±.002 (.05)
1 to 12 inclusive	.270 (6.86)	.190 (4.83)	.110 (2.79)							.078 (1.98)	.120 (3.05)	.016 (.41)
15	.270 (6.86)	.190 (4.83)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)				.078 (1.98)	.120 (3.05)	.016 (.41)
18 and 20	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)				.078 (1.98)	.120 (3.05)	.016 (.41)
22 and 24	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)	.078 (1.98)	.120 (3.05)	.016 (.41)
27	.270 (6.86)	.200 (5.08)	.130 (3.30)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)	.078 (1.98)	.120 (3.05)	.016 (.41)
30 and 33	.270 (6.86)	.200 (5.08)	.130 (3.30)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)	.078 (1.98)	.120 (3.05)	.016 (.41)
36	.270 (6.86)	.210 (5.33)	.130 (3.30)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.110 (2.79)	.078 (1.98)	.120 (3.05)	.016 (.41)
39	.270 (6.86)	.210 (5.33)	.130 (3.30)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
43	.270 (6.86)	.210 (5.33)	.140 (3.56)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
47 and 51	.270 (6.86)	.210 (5.33)	.140 (3.56)	.270 (6.86)	.200 (5.08)	.130 (3.30)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
56	.270 (6.86)	.220 (5.59)	.150 (3.81)	.270 (6.86)	.200 (5.08)	.130 (3.30)	.270 (6.86)	.190 (4.83)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
62	.270 (6.86)	.220 (5.59)	.150 (3.81)	.270 (6.86)	.210 (5.33)	.130 (3.30)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
68	.270 (6.86)	.220 (5.59)	.150 (3.81)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
75 and 82	.270 (6.86)	.230 (5.84)	.160 (4.06)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.270 (6.86)	.200 (5.08)	.120 (3.05)	.078 (1.98)	.120 (3.05)	.016 (.41)
91	.270 (6.86)	.230 (5.84)	.170 (4.32)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.270 (6.86)	.200 (5.08)	.130 (3.30)	.078 (1.98)	.120 (3.05)	.016 (.41)
100 and 110	.270 (6.86)	.240 (6.10)	.180 (4.57)	.270 (6.86)	.220 (5.59)	.150 (3.81)	.270 (6.86)	.200 (5.08)	.130 (3.30)	.078 (1.98)	.120 (3.05)	.016 (.41)
120	.270 (6.86)	.250 (6.35)	.190 (4.83)	.270 (6.86)	.220 (5.59)	.160 (4.06)	.270 (6.86)	.200 (5.08)	.130 (3.30)	.078 (1.98)	.120 (3.05)	.016 (.41)
130				.270 (6.86)	.230 (5.84)	.160 (4.06)	.270 (6.86)	.210 (5.33)	.130 (3.30)	.078 (1.98)	.120 (3.05)	.016 (.41)
150				.270 (6.86)	.230 (5.84)	.170 (4.32)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.078 (1.98)	.120 (3.05)	.016 (.41)
160				.270 (6.86)	.240 (6.10)	.170 (4.32)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.078 (1.98)	.120 (3.05)	.016 (.41)
170 and 180				.270 (6.86)	.240 (6.10)	.180 (4.57)	.270 (6.86)	.210 (5.33)	.140 (3.56)	.078 (1.98)	.120 (3.05)	.016 (.41)
200				.270 (6.86)	.250 (6.35)	.190 (4.83)	.270 (6.86)	.220 (5.59)	.150 (3.81)	.078 (1.98)	.120 (3.05)	.016 (.41)
220							.270 (6.86)	.220 (5.59)	.150 (3.81)	.078 (1.98)	.120 (3.05)	.016 (.41)
240							.270 (6.86)	.220 (5.59)	.160 (4.06)	.078 (1.98)	.120 (3.05)	.016 (.41)
270							.270 (6.86)	.230 (5.84)	.160 (4.06)	.078 (1.98)	.120 (3.05)	.016 (.41)
300							.270 (6.86)	.230 (5.84)	.170 (4.32)	.078 (1.98)	.120 (3.05)	.016 (.41)
330 and 360							.270 (6.86)	.240 (6.10)	.180 (4.57)	.078 (1.98)	.120 (3.05)	.016 (.41)
390 and 400							.270 (6.86)	.250 (6.35)	.190 (4.83)	.078 (1.98)	.120 (3.05)	.016 (.41)

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TABLE I. Dimensions - Continued.

Capacitance (pF)	L		T		W, max	R, max	A spacing ± .031 (.79)	M Dia ±.002 (.05)
	Min	Max	Min	Max				
STYLE CMR04								
1 to 24, inclusive	.300 (7.62)	.360 (9.14)	.100 (2.54)	.190 (4.83)	.330 (8.38)	.125 (3.18)	.150 (3.81)	.016 (.41)
27	.300 (7.62)	.370 (9.40)	.100 (2.54)	.190 (4.83)	.330 (8.38)	.125 (3.18)	.150 (3.81)	.016 (.41)
30 to 68, inclusive	.300 (7.62)	.370 (9.40)	.100 (2.54)	.190 (4.83)	.340 (8.64)	.125 (3.18)	.150 (3.81)	.016 (.41)
75	.300 (7.62)	.370 (9.40)	.110 (2.79)	.200 (5.08)	.340 (8.64)	.125 (3.18)	.150 (3.81)	.016 (.41)
82	.300 (7.62)	.370 (9.40)	.110 (2.79)	.200 (5.08)	.350 (8.89)	.125 (3.18)	.150 (3.81)	.016 (.41)
91 and 100	.300 (7.62)	.370 (9.40)	.110 (2.79)	.200 (5.08)	.350 (8.89)	.125 (3.18)	.150 (3.81)	.016 (.41)
110 and 120	.300 (7.62)	.380 (9.65)	.110 (2.79)	.200 (5.08)	.350 (8.89)	.125 (3.18)	.150 (3.81)	.016 (.41)
130	.300 (7.62)	.380 (9.65)	.110 (2.79)	.200 (5.08)	.360 (9.14)	.125 (3.18)	.150 (3.81)	.016 (.41)
150 and 160	.300 (7.62)	.380 (9.65)	.120 (3.05)	.210 (5.33)	.360 (9.14)	.125 (3.18)	.150 (3.81)	.016 (.41)
180	.300 (7.62)	.390 (9.91)	.120 (3.05)	.210 (5.33)	.370 (9.40)	.125 (3.18)	.150 (3.81)	.016 (.41)
220 to 390, inclusive	.300 (7.62)	.390 (9.91)	.140 (3.56)	.220 (5.59)	.380 (9.65)	.125 (3.18)	.150 (3.81)	.016 (.41)
STYLE CMR05								
1 to 62, inclusive	.400 (10.16)	.450 (11.43)	.090 (2.29)	.170 (4.32)	.360 (9.14)	.125 (3.18)	.225 (5.72)	.025 (.64)
68 to 82, inclusive	.400 (10.16)	.450 (11.43)	.095 (2.41)	.180 (4.57)	.360 (9.14)	.125 (3.18)	.225 (5.72)	.025 (.64)
91 and 100	.400 (10.16)	.460 (11.68)	.095 (2.41)	.180 (4.57)	.360 (9.14)	.125 (3.18)	.225 (5.72)	.025 (.64)
110 to 130, inclusive	.400 (10.16)	.460 (11.68)	.095 (2.41)	.180 (4.57)	.370 (9.40)	.125 (3.18)	.225 (5.72)	.025 (.64)
150 to 180, inclusive	.400 (10.16)	.460 (11.68)	.110 (2.79)	.190 (4.83)	.370 (9.40)	.125 (3.18)	.225 (5.72)	.025 (.64)
200	.400 (10.16)	.460 (11.68)	.110 (2.79)	.190 (4.83)	.380 (9.65)	.125 (3.18)	.225 (5.72)	.025 (.64)
220 and 240	.400 (10.16)	.460 (11.68)	.110 (2.79)	.200 (5.08)	.380 (9.65)	.125 (3.18)	.225 (5.72)	.025 (.64)
270 to 330, inclusive	.400 (10.16)	.470 (11.94)	.110 (2.79)	.210 (5.33)	.390 (9.91)	.125 (3.18)	.225 (5.72)	.025 (.64)
360 and 390	.400 (10.16)	.470 (11.94)	.120 (3.05)	.220 (5.59)	.400 (10.16)	.125 (3.18)	.225 (5.72)	.025 (.64)
STYLE CMR06								
430 and 470	.550 (13.97)	.640 (16.26)	.090 (2.29)	.200 (5.08)	.510 (12.95)	.141 (3.58)	.350 (8.89)	.032 (.81)
510 to 620, inclusive	.560 (14.22)	.650 (16.51)	.090 (2.29)	.200 (5.08)	.510 (12.95)	.141 (3.58)	.350 (8.89)	.032 (.81)
680 to 910, inclusive	.560 (14.22)	.650 (16.51)	.100 (2.54)	.210 (5.33)	.510 (12.95)	.141 (3.58)	.350 (8.89)	.032 (.81)
1000 and 1100	.560 (14.22)	.650 (16.51)	.110 (2.79)	.220 (5.59)	.520 (13.21)	.141 (3.58)	.350 (8.89)	.032 (.81)
1200 and 1300	.570 (14.48)	.660 (16.76)	.110 (2.79)	.220 (5.59)	.520 (13.21)	.141 (3.58)	.350 (8.89)	.032 (.81)
1500	.570 (14.48)	.660 (16.76)	.120 (3.05)	.230 (5.84)	.520 (13.21)	.141 (3.58)	.350 (8.89)	.032 (.81)
1600	.570 (14.48)	.660 (16.76)	.120 (3.05)	.230 (5.84)	.530 (13.46)	.141 (3.58)	.350 (8.89)	.032 (.81)
1800 and 2000	.580 (14.73)	.670 (17.02)	.130 (3.30)	.240 (6.10)	.530 (13.46)	.141 (3.58)	.350 (8.89)	.032 (.81)
2200	.580 (14.73)	.670 (17.02)	.140 (3.56)	.250 (6.35)	.530 (13.46)	.141 (3.58)	.350 (8.89)	.032 (.81)
2400	.580 (14.73)	.670 (17.02)	.150 (3.81)	.260 (6.60)	.540 (13.72)	.141 (3.58)	.350 (8.89)	.032 (.81)
2700	.590 (14.99)	.680 (17.27)	.160 (4.06)	.270 (6.86)	.540 (13.72)	.141 (3.58)	.350 (8.89)	.032 (.81)
3000	.590 (14.99)	.680 (17.27)	.170 (4.32)	.280 (7.11)	.550 (13.97)	.141 (3.58)	.350 (8.89)	.032 (.81)
3300	.590 (14.99)	.680 (17.27)	.180 (4.57)	.290 (7.37)	.550 (13.97)	.141 (3.58)	.350 (8.89)	.032 (.81)
3600	.590 (14.99)	.680 (17.27)	.190 (4.83)	.300 (7.62)	.560 (14.22)	.141 (3.58)	.350 (8.89)	.032 (.81)
3900	.600 (15.24)	.690 (17.53)	.200 (5.08)	.310 (7.87)	.560 (14.22)	.141 (3.58)	.350 (8.89)	.032 (.81)
4300	.600 (15.24)	.690 (17.53)	.220 (5.59)	.330 (8.38)	.570 (14.48)	.141 (3.58)	.350 (8.89)	.032 (.81)
4700	.610 (15.49)	.700 (17.78)	.220 (5.59)	.350 (8.89)	.580 (14.73)	.141 (3.58)	.350 (8.89)	.032 (.81)
STYLE CMR07								
5100	.680 (17.27)	.780 (19.81)	.150 (3.81)	.280 (7.11)	.860 (21.84)	.141 (3.58)	.425 (10.80)	.040 (1.02)
5600 and 6200	.680 (17.27)	.780 (19.81)	.150 (3.81)	.290 (7.37)	.870 (22.10)	.141 (3.58)	.425 (10.80)	.040 (1.02)
6800	.680 (17.27)	.780 (19.81)	.150 (3.81)	.300 (7.62)	.870 (22.10)	.141 (3.58)	.425 (10.80)	.040 (1.02)
7500	.690 (17.53)	.790 (20.07)	.150 (3.81)	.310 (7.87)	.880 (22.35)	.141 (3.58)	.425 (10.80)	.040 (1.02)
8200	.690 (17.53)	.790 (20.07)	.150 (3.81)	.320 (8.13)	.880 (22.35)	.141 (3.58)	.425 (10.80)	.040 (1.02)
9100	.690 (17.53)	.790 (20.07)	.150 (3.81)	.330 (8.38)	.880 (22.35)	.141 (3.58)	.425 (10.80)	.040 (1.02)
10,000	.700 (17.78)	.800 (20.32)	.200 (5.08)	.340 (8.64)	.890 (22.61)	.141 (3.58)	.425 (10.80)	.040 (1.02)
11,000	.700 (17.78)	.800 (20.32)	.200 (5.08)	.350 (8.89)	.890 (22.61)	.141 (3.58)	.425 (10.80)	.040 (1.02)
12,000	.700 (17.78)	.800 (20.32)	.200 (5.08)	.360 (9.14)	.890 (22.61)	.141 (3.58)	.425 (10.80)	.040 (1.02)
13,000	.710 (18.03)	.810 (20.57)	.250 (6.35)	.370 (9.40)	.890 (22.61)	.141 (3.58)	.425 (10.80)	.040 (1.02)
15,000	.710 (18.03)	.810 (20.57)	.250 (6.35)	.390 (9.91)	.900 (22.86)	.141 (3.58)	.425 (10.80)	.040 (1.02)
16,000	.720 (18.29)	.820 (20.83)	.250 (6.35)	.410 (10.41)	.900 (22.86)	.141 (3.58)	.425 (10.80)	.040 (1.02)
18,000	.720 (18.29)	.820 (20.83)	.250 (6.35)	.430 (10.92)	.910 (23.11)	.141 (3.58)	.425 (10.80)	.040 (1.02)
20,000	.730 (18.54)	.830 (21.08)	.250 (6.35)	.450 (11.43)	.920 (23.37)	.141 (3.58)	.425 (10.80)	.040 (1.02)

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TABLE I. Dimensions - Continued.

Capacitance (pF)	L		T		W, max	R, max	A spacing ± .031 (.79)	M Dia ±.002 (.05)
	Min	Max	Min	Max				
STYLE CMR08								
22,000	1.300 (33.02)	1.420 (36.07)	.180 (4.57)	.310 (7.87)	.880 (22.35)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
24,000	1.310 (33.27)	1.430 (36.32)	.180 (4.57)	.320 (8.13)	.880 (22.35)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
27,000	1.320 (33.53)	1.430 (36.32)	.180 (4.57)	.330 (8.38)	.880 (22.35)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
30,000	1.330 (33.78)	1.440 (36.58)	.180 (4.57)	.350 (8.89)	.890 (22.61)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
33,000	1.330 (33.78)	1.440 (36.58)	.180 (4.57)	.360 (9.14)	.890 (22.61)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
36,000	1.340 (34.04)	1.450 (36.83)	.180 (4.57)	.380 (9.65)	.900 (22.86)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
39,000	1.340 (34.04)	1.450 (36.83)	.220 (5.59)	.400 (10.16)	.900 (22.86)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
43,000	1.350 (34.29)	1.460 (37.08)	.225 (5.72)	.420 (10.67)	.910 (23.11)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
47,000	1.360 (34.54)	1.470 (37.34)	.250 (6.35)	.450 (11.43)	.910 (23.11)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
51,000	1.370 (34.80)	1.480 (37.59)	.250 (6.35)	.470 (11.94)	.920 (23.37)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
56,000	1.350 (34.29)	1.460 (37.08)	.225 (5.72)	.420 (10.67)	.910 (23.11)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
62,000	1.360 (34.54)	1.470 (37.34)	.250 (6.35)	.450 (11.43)	.920 (23.37)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
68,000	1.370 (34.80)	1.480 (37.59)	.260 (6.60)	.470 (11.94)	.920 (23.37)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
75,000	1.370 (34.54)	1.470 (37.34)	.240 (6.10)	.440 (11.18)	.910 (23.11)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
82,000	1.370 (34.80)	1.480 (37.59)	.310 (7.87)	.460 (11.68)	.920 (23.37)	.141 (3.58)	1.050 (26.67)	.040 (1.02)
91,000	1.390 (35.31)	1.500 (38.10)	.340 (8.64)	.500 (12.70)	.940 (23.88)	.141 (3.58)	1.050 (26.67)	.040 (1.02)

REQUIREMENTS:

Dimension: See [figure 1](#) and [table I](#).

Case: Resin (dipped).

Capacitance value: See [table II](#).

Capacitance tolerance: See [table II](#).

DC rated voltage: 50 V (Y); 100 V (A); 300 V (C); or 500 V(D), as shown in [table II](#).

Operating temperature range: See [table II](#).

Characteristic: See [table II](#).

Product level: See [table II](#).

Barometric pressure: [Method 105 of MIL-STD-202](#), condition D (100,000 ft). Test potential - 100 percent of rated dc voltage for style CMR04, 500 volts; 150 percent for lesser voltages and all other styles.

Insulation resistance (IR): [Method 302 of MIL-STD-202](#), test condition A: (Minimum requirements):

At 25°C:

0 to 10,000 pF	100,000 megohms
10,000 pF and greater	1,000 megohm-microfarads

At 125°C:

0 to 3,300 pF	10,000 megohms
3,300 pF and greater	33 megohm-microfarads

At 150°C

0 to 1,500 pF	5,000 megohms
1,500 pF and greater	7.5 megohm-microfarads

Dissipation factor (DF): See [MIL-PRF-39001](#).

High voltage stabilization: 200 percent of rated dc voltage for 48 hours at a minimum temperature of 125°C or 150°C, as applicable.

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Thermal shock: In accordance with [MIL-PRF-39001](#) except high temperature shall be as follows:

Symbol O - +125°C.

Symbol P - +150°C.

Immersion: In accordance with [MIL-PRF-39001](#) except $\Delta\text{Cap.}$ shall not exceed ± 1 percent or 1 pF, whichever is greater, of reference measurement.

Terminal strength:

Pull test - For style CMR03 and CMR04, pull shall be applied in the direction of the leads.

Moisture resistance: In accordance with [MIL-PRF-39001](#) except $\Delta\text{Cap.}$ shall not exceed ± 1 percent or 1 pF, whichever is greater, of reference measurement.

Life:

Forty eight hours, minimum, at -55°C +0°C, -2°C immediately followed by qualification or quality conformance test, as applicable.

Qualification test: 2,000 hours at applicable high test temperature with 100 percent or 150 percent of rated dc voltage applied, as applicable.

DWV - Meet initial requirement.

IR - Meet initial requirement.

$\Delta\text{Cap.}$ - Shall not exceed ± 1 percent or 1 pF, whichever is greater, or the initial measurement.

DF - Not greater than 150 percent of initial requirement.

Quality conformance test: 2,000 hours (M, P, R, and S FRLs) at applicable high test temperature and 150 percent of rated dc voltage; requirements as specified for qualification.

Resistance to soldering heat: In accordance with [MIL-PRF-39001](#) except $\Delta\text{Cap.}$ shall not exceed ± 1 percent or 1 pF, whichever is greater, of the initial measurement.

Marking: Capacitors shall be marked as indicated in examples on [figure 2](#).

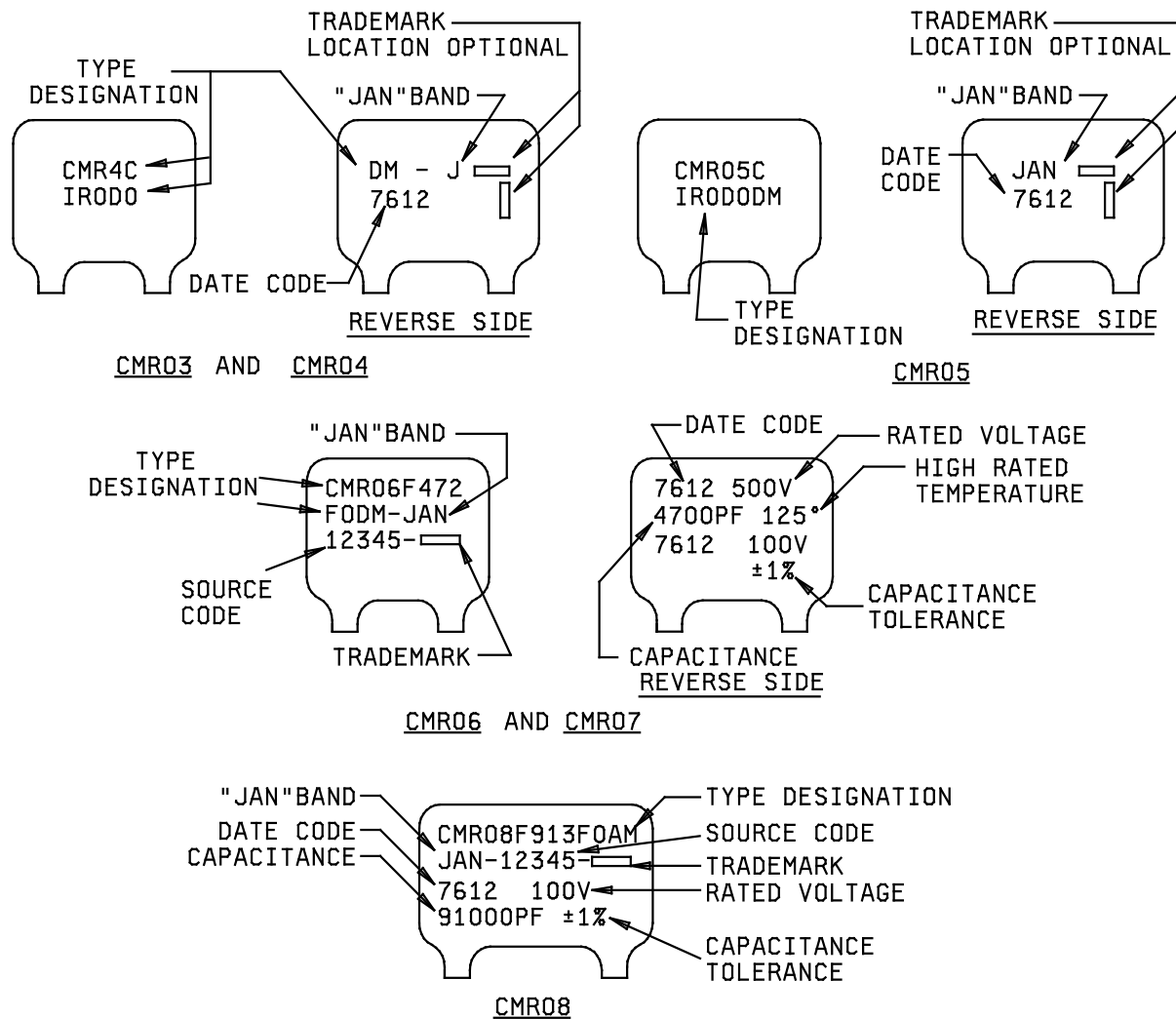


FIGURE 2. Marking examples.

TABLE II. Type designations.

STYLE CMR03				
Type designation <u>1/</u>	Capacitance value (pF)	DC rated voltage (volts)	Operating temperature range	Capacitance tolerance available
CMR03C1R0DOC-	1.0	300	O	D
CMR03C1R5DOC-	1.5	300	O	D
CMR03C2R0DOC-	2.0	300	O	D
CMR03C2R5DOC-	2.5	300	O	D
CMR03C3R0DOC-	3.0	300	O	D
CMR03C3R5DOC-	3.5	300	O	D
CMR03C4R0DOC-	4.0	300	O	D
CMR03C4R5DOC-	4.5	300	O	D
CMR03C5R0DOC-	5.0	300	O	D
CMR03C6R0DOC-	6.0	300	O	D
CMR03C7R0DOC-	7.0	300	O	D
CMR03C8R0DOC-	8.0	300	O	D
CMR03C9R0DOC-	9.0	300	O	D
CMR03C100DOC-	10	300	O	D
CMR03C110DOC-	11	300	O	D
CMR03C120DOC-	12	300	O	D
CMR03C150DO--	15	300, 100	O	D
CMR03C180DO--	18	300, 100	O	D
CMR03E200DO--	20	300, 100	O	D
CMR03E220DO--	22	300, 100, 50	O	D
CMR03E240DO--	24	300, 100, 50	O	D
CMR03E270-O--	27	300, 100, 50	O	G, J
CMR03E300-O--	30	300, 100, 50	O	G, J
CMR03E330-O--	33	300, 100, 50	O	G, J
CMR03E360-O--	36	300, 100, 50	O	G, J
CMR03E390-O--	39	300, 100, 50	O	G, J
CMR03E430-O--	43	300, 100, 50	O	G, J
CMR03E470-O--	47	300, 100, 50	O	G, J
CMR03E510-O--	51	300, 100, 50	O	G, J
CMR03E560-O--	56	300, 100, 50	O	G, J
CMR03E620-O--	62	300, 100, 50	O	G, J
CMR03E680-O--	68	300, 100, 50	O	G, J
CMR03E750-O--	75	300, 100, 50	O	G, J
CMR03E820-O--	82	300, 100, 50	O	G, J
CMR03F910-O--	91	300, 100, 50	O	G, J
CMR03F101-O--	100	300, 100, 50	O	G, J
CMR03F111-O--	110	300, 100, 50	O	G, J
CMR03F121-O--	120	300, 100, 50	O	G, J
CMR03F131-O--	130	100, 50	O	G, J
CMR03F151-O--	150	100, 50	O	G, J
CMR03F161-O--	160	100, 50	O	G, J
CMR03F171-O--	170	100, 50	O	G, J
CMR03F181-O--	180	100, 50	O	G, J
CMR03F201-O--	200	100, 50	O	G, J
CMR03F221-OY-	220	50	O	G, J
CMR03F241-OY-	240	50	O	G, J
CMR03F271-OY-	270	50	O	G, J
CMR03F301-OY-	300	50	O	G, J
CMR03F331-OY-	330	50	O	G, J
CMR03F361-OY-	360	50	O	G, J
CMR03F391-OY-	390	50	O	G, J
CMR03F401-OY-	400	50	O	G, J

See footnote at end of table.

TABLE II. Type designations - Continued.

STYLE CMR04				
Type designation <u>1/</u>	Capacitance value (pF)	DC rated voltage (volts)	Operating temperature range	Capacitance tolerance available
CMR04C1R0D-D-	1.0	500	O, P	D
CMR04C1R5D-D-	1.5	500	O, P	D
CMR04C2R0D-D-	2.0	500	O, P	D
CMR04C2R5D-D-	2.5	500	O, P	D
CMR04C3R0D-D-	3.0	500	O, P	D
CMR04C3R5D-D-	3.5	500	O, P	D
CMR04C4R0D-D-	4.0	500	O, P	D
CMR04C4R5D-D-	4.5	500	O, P	D
CMR04C5R0D-D-	5.0	500	O, P	D
CMR04C6R0D-D-	6.0	500	O, P	D
CMR04C7R0D-D-	7.0	500	O, P	D
CMR04C8R0D-D-	8.0	500	O, P	D
CMR04C9R0D-D-	9.0	500	O, P	D
CMR04C100D-D-	10	500	O, P	D
CMR04C110D-D-	11	500	O, P	D
CMR04C120J-D-	12	500	O, P	J
CMR04C150J-D-	15	500	O, P	J
CMR04C180J-D-	18	500	O, P	J
CMR04E200J-D-	20	500	O, P	J
CMR04E220J-D-	22	500	O, P	J
CMR04E240J-D-	24	500	O, P	J
CMR04E270--D-	27	500	O, P	G, J
CMR04E300--D-	30	500	O, P	G, J
CMR04E330--D-	33	500	O, P	G, J
CMR04E360--D-	36	500	O, P	G, J
CMR04E390--D-	39	500	O, P	G, J
CMR04E430--D-	43	500	O, P	G, J
CMR04E470--D-	47	500	O, P	G, J
CMR04E510--D-	51	500	O, P	F, G, J
CMR04E560--D-	56	500	O, P	F, G, J
CMR04E620--D-	62	500	O, P	F, G, J
CMR04E680--D-	68	500	O, P	F, G, J
CMR04E750--D-	75	500	O, P	F, G, J
CMR04E820--D-	82	500	O, P	F, G, J
CMR04F910--D-	91	500	O, P	F, G, J
CMR04F101--D-	100	500	O, P	F, G, J
CMR04F111--D-	110	500	O, P	F, G, J
CMR04F121--D-	120	500	O, P	F, G, J
CMR04F131--D-	130	500	O, P	F, G, J
CMR04F151--D-	150	500	O, P	F, G, J
CMR04F161--D-	160	500	O, P	F, G, J
CMR04F171--D-	170	500	O, P	F, G, J
CMR04F181--D-	180	500	O, P	F, G, J
CMR04F201--D-	200	500	O, P	F, G, J
CMR04F221--D-	220	500	O, P	F, G, J
CMR04F241--D-	240	500	O, P	F, G, J
CMR04F271--C-	270	300	O, P	F, G, J
CMR04F301--C-	300	300	O, P	F, G, J
CMR04F331--A-	330	100	O, P	F, G, J
CMR04F361--A-	360	100	O, P	F, G, J
CMR04F391--A-	390	100	O, P	F, G, J

See footnote at end of table.

TABLE II. Type designations - Continued.

STYLE CMR05				
Type designation <u>1/</u>	Capacitance value (pF)	DC rated voltage (volts)	Operating temperature range	Capacitance tolerance available
CMR05C1R0D-D-	1.0	500	O, P	D
CMR05C1R5D-D-	1.5	500	O, P	D
CMR05C2R0D-D-	2.0	500	O, P	D
CMR05C2R5D-D-	2.5	500	O, P	D
CMR05C3R0D-D-	3.0	500	O, P	D
CMR05C3R5D-D-	3.5	500	O, P	D
CMR05C4R0D-D-	4.0	500	O, P	D
CMR05C4R5D-D-	4.5	500	O, P	D
CMR05C5R0D-D-	5.0	500	O, P	D
CMR05C6R0D-D-	6.0	500	O, P	D
CMR05C7R0D-D-	7.0	500	O, P	D
CMR05C8R0D-D-	8.0	500	O, P	D
CMR05C9R0D-D-	9.0	500	O, P	D
CMR05C100D-D-	10	500	O, P	D
CMR05C110D-D-	11	500	O, P	D
CMR05C120J-D-	12	500	O, P	J
CMR05C150J-D-	15	500	O, P	J
CMR05C180J-D-	18	500	O, P	J
CMR05E200J-D-	20	500	O, P	J
CMR05E220J-D-	22	500	O, P	J
CMR05E240J-D-	24	500	O, P	J
CMR05E270--D-	27	500	O, P	G, J
CMR05E300--D-	30	500	O, P	G, J
CMR05E330--D-	33	500	O, P	G, J
CMR05E360--D-	36	500	O, P	G, J
CMR05E390--D-	39	500	O, P	G, J
CMR05E430--D-	43	500	O, P	G, J
CMR05E470--D-	47	500	O, P	G, J
CMR05E510--D-	51	500	O, P	F, G, J
CMR05E560--D-	56	500	O, P	F, G, J
CMR05E620--D-	62	500	O, P	F, G, J
CMR05E680--D-	68	500	O, P	F, G, J
CMR05E750--D-	75	500	O, P	F, G, J
CMR05E820--D-	82	500	O, P	F, G, J
CMR05F910--D-	91	500	O, P	F, G, J
CMR05F101--D-	100	500	O, P	F, G, J
CMR05F111--D-	110	500	O, P	F, G, J
CMR05F121--D-	120	500	O, P	F, G, J
CMR05F131--D-	130	500	O, P	F, G, J
CMR05F151--D-	150	500	O, P	F, G, J
CMR05F161--D-	160	500	O, P	F, G, J
CMR05F171--D-	170	500	O, P	F, G, J
CMR05F181--D-	180	500	O, P	F, G, J
CMR05F201--D-	200	500	O, P	F, G, J
CMR05F221--D-	220	500	O, P	F, G, J
CMR05F241--D-	240	500	O, P	F, G, J
CMR05F271--D-	270	500	O, P	F, G, J
CMR05F301--D-	300	500	O, P	F, G, J
CMR05F331--D-	330	500	O, P	F, G, J
CMR05F361--D-	360	500	O, P	F, G, J
CMR05F391--D-	390	500	O, P	F, G, J

See footnote at end of table.

TABLE II. Type designations - Continued.

STYLE CMR06				
Type designation <u>1/</u>	Capacitance value (pF)	DC rated voltage (volts)	Operating temperature range	Capacitance tolerance available
CMR06F431--D-	430	500	O, P	F, G, J
CMR06F471--D-	470	500	O, P	F, G, J
CMR06F511--D-	510	500	O, P	F, G, J
CMR06F561--D-	560	500	O, P	F, G, J
CMR06F621--D-	620	500	O, P	F, G, J
CMR06F681--D-	680	500	O, P	F, G, J
CMR06F751--D-	750	500	O, P	F, G, J
CMR06F821--D-	820	500	O, P	F, G, J
CMR06F911--D-	910	500	O, P	F, G, J
CMR06F102--D-	1,000	500	O, P	F, G, J
CMR06F112--D-	1,100	500	O, P	F, G, J
CMR06F122--D-	1,200	500	O, P	F, G, J
CMR06F132--D-	1,300	500	O, P	F, G, J
CMR06F152--D-	1,500	500	O, P	F, G, J
CMR06F162--D-	1,600	500	O, P	F, G, J
CMR06F182--D-	1,800	500	O, P	F, G, J
CMR06F202--D-	2,000	500	O, P	F, G, J
CMR06F222--D-	2,200	500	O, P	F, G, J
CMR06F242--D-	2,400	500	O, P	F, G, J
CMR06F272--D-	2,700	500	O, P	F, G, J
CMR06F302--D-	3,000	500	O, P	F, G, J
CMR06F332--D-	3,300	500	O, P	F, G, J
CMR06F362--D-	3,600	500	O, P	F, G, J
CMR06F392--D-	3,900	500	O, P	F, G, J
CMR06F432--D-	4,300	500	O, P	F, G, J
CMR06F472--D-	4,700	500	O, P	F, G, J
STYLE CMR07				
CMR07F512--D-	5,100	500	O, P	F, G, J
CMR07F562--D-	5,600	500	O, P	F, G, J
CMR07F622--D-	6,200	500	O, P	F, G, J
CMR07F682--D-	6,800	500	O, P	F, G, J
CMR07F752--D-	7,500	500	O, P	F, G, J
CMR07F822--D-	8,200	500	O, P	F, G, J
CMR07F912--D-	9,100	500	O, P	F, G, J
CMR07F103--D-	10,000	500	O, P	F, G, J
CMR07F113--D-	11,000	500	O, P	F, G, J
CMR07F123--D-	12,000	500	O, P	F, G, J
CMR07F133--D-	13,000	500	O, P	F, G, J
CMR07F153--D-	15,000	500	O, P	F, G, J
CMR07F163--D-	16,000	500	O, P	F, G, J
CMR07F183--D-	18,000	500	O, P	F, G, J
CMR07F203--D-	20,000	500	O, P	F, G, J

See footnote at end of table.

MIL-PRF-39001/5E

TABLE II. Type designations - Continued.

STYLE CMR08				
Type designation <u>1/</u>	Capacitance value (pF)	DC rated voltage (volts)	Operating temperature range	Capacitance tolerance available
CMR08F223--D-	22000	500	O, P	F, G, J
CMR08F243--D-	24000	500	O, P	F, G, J
CMR08F273--D-	27000	500	O, P	F, G, J
CMR08F303--D-	30000	500	O, P	F, G, J
CMR08F333--D-	33000	500	O, P	F, G, J
CMR08F363--D-	36000	500	O, P	F, G, J
CMR08F393--D-	39000	500	O, P	F, G, J
CMR08F433--D-	43000	500	O, P	F, G, J
CMR08F473--D-	47000	500	O, P	F, G, J
CMR08F513--D-	51000	500	O, P	F, G, J
CMR08F563--C-	56000	300	O, P	F, G, J
CMR08F623--C-	62000	300	O, P	F, G, J
CMR08F683--C-	68000	300	O, P	F, G, J
CMR08F753--A-	75000	100	O, P	F, G, J
CMR08F823--A-	82000	100	O, P	F, G, J
CMR08F913--A-	91000	100	O, P	F, G, J

1/ Complete type designation will include additional letter symbols to indicate the following, where applicable:

Capacitance tolerance: D ($\pm 5\%$); F ($\pm 1\%$); G ($\pm 2\%$); or J ($\pm 5\%$).

Operating temperature range: 0 (-55° to 125°C) or P (-55° to $+150^{\circ}\text{C}$).

Rated voltage: Y (50v); A (100v); C (300v); or D (500v).

Product level: M (1.0%); P (0.1%); R (0.01%); S (0.001%); or C.

TABLE III. Substitutability data.

Substitute item:	Substitute for:
MIL-PRF-39001/5D	MIL-C-39001/5
CMR04C1R0D-D-	CMR04C010D-D-
CMR04C5R0D-D-	CMR04C050D-D-
CMR04C6R0D-D-	CMR04C060D-D-
CMR04C7R0D-D-	CMR04C070D-D-
CMR04C8R0D-D-	CMR04C080D-D-
CMR05C1R0D-D-	CMR05C010D-D-
CMR05C5R0D-D-	CMR05C050D-D-
CMR05C6R0D-D-	CMR05C060D-D-
CMR05C7R0D-D-	CMR05C070D-D-
CMR05C8R0D-D-	CMR05C080D-D-

NOTES:

Reference documents. In addition to [MIL-PRF-39001](#), this specification sheet references the following documents.

[MIL-STD-202](#)

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch> or <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094).

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
Army - CR

Agent:
DLA - CC

Review activities:
Army - AV, MI
Navy - MC
Air Force – 19

(Project 5910-2009-006)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>