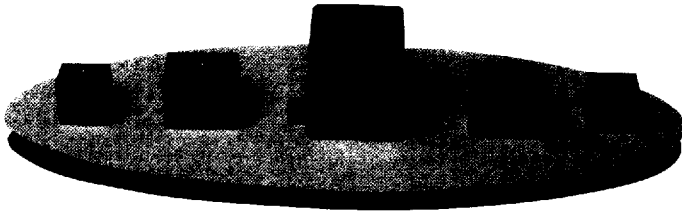


# Transmitting Capacitors

## Types 271, 272, 273—Rectangular Case, High-Current and High-Voltage Circuits



Designed for frequencies ranging from 100 kHz to 3 MHz, Transmitting Mica Capacitor Types 271, 272, and 273 are well-suited for high-current and high-voltage circuits. Cast in rectangular cases, these capacitors are electrically equivalent to MIL-C-5 Styles CM65 through CM73 in capacitance and current ratings but are far superior in environmental capability, temperature range, physical size, mounting configuration, and reliability.

### Performance Highlights

- Peak Voltage: 250 to 8,000 Peak Volts
- Capacitance Range: 47 pF to 1,000,000 pF
- Capacitance Tolerance:  $\pm 2$  (G),  $\pm 5\%$  (J)
- Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Cast in Rectangular Cases
- Type 273 permits stand-off mounting
- Highly shock resistant
- Optional aluminum mounting plates
- Convenient mounting

### Type 271 Ratings

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>250 Peak Volts</b>					
47000	27102B473J00	11	11.0	9.1	4.7
50000	27102B503J00	11	11.0	9.1	4.7
51000	27102B513J00	11	11.0	9.1	4.7
56000	27102B563J00	11	11.0	9.1	4.7
62000	27102B623J00	11	11.0	9.1	5.1
68000	27102B683J00	11	11.0	9.1	5.1
75000	27102B753J00	11	11.0	9.1	5.1
82000	27102B823J00	11	11.0	9.1	5.1
91000	27102B913J00	11	11.0	9.1	5.6
100000	27102B104J00	11	11.0	9.1	5.6
<b>500 Peak Volts</b>					
27000	27105B273J00	11	11.0	7.5	3.9
30000	27105B303J00	11	11.0	8.2	3.9
33000	27105B333J00	11	11.0	8.2	4.3
36000	27105B363J00	11	11.0	8.2	4.3
39000	27105B393J00	11	11.0	8.2	4.3
43000	27105B433J00	11	11.0	9.1	4.7
<b>1,000 Peak Volts</b>					
10000	27110B103J00	10	9.1	5.1	2.4
11000	27110B113J00	11	10.0	5.6	2.7
12000	27110B123J00	11	10.0	6.2	3.0
13000	27110B133J00	11	11.0	6.8	3.0
15000	27110B153J00	11	11.0	6.8	3.3
16000	27110B163J00	11	11.0	6.8	3.3
18000	27110B183J00	11	11.0	7.5	3.3
20000	27110B203J00	11	11.0	7.5	3.6
22000	27110B223J00	11	11.0	7.5	3.6
24000	27110B243J00	11	11.0	7.5	3.6
<b>1,500 Peak Volts</b>					
8000	27115B802J00	10	8.2	4.7	2.2
8200	27115B822J00	10	8.2	4.7	2.2
9100	27115B912J00	10	8.2	5.1	2.4

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>2,000 Peak Volts</b>					
2700	27120B272J00	6.8	5.1	2.7	1.3
3000	27120B302J00	7.5	5.1	3.0	1.3
3300	27120B332J00	7.5	5.6	3.0	1.5
3600	27120B362J00	7.5	5.6	3.3	1.5
3900	27120B392J00	8.2	6.2	3.3	1.6
4000	27120B402J00	8.2	6.2	3.3	1.6
4300	27120B432J00	8.2	6.2	3.6	1.6
4700	27120B472J00	8.2	6.8	3.6	1.8
5000	27120B502J00	8.2	6.8	3.6	1.8
5100	27120B512J00	8.2	6.8	3.6	1.8
5600	27120B562J00	9.1	7.5	3.9	2.0
6000	27120B602J00	9.1	7.5	4.3	2.0
6200	27120B622J00	9.1	7.5	4.3	2.0
6800	27120B682J00	10	7.5	4.3	2.0
7500	27120B752J00	10	8.2	4.7	2.2
<b>3,000 Peak Volts</b>					
47	27130B470J00	1.2	.51	.15	.051
51	27130B510J00	1.3	.51	.18	.056
56	27130B560J00	1.3	.56	.20	.056
62	27130B620J00	1.5	.62	.22	.068
68	27130B680J00	1.5	.62	.24	.075
75	27130B750J00	1.5	.62	.27	.082
82	27130B820J00	1.6	.68	.27	.082
91	27130B910J00	1.6	.68	.33	.091
100	27130B101J00	1.8	.75	.33	.10
110	27130B111J00	1.8	.82	.36	.12
120	27130B121J00	2	.91	.39	.15
130	27130B131J00	2	.91	.43	.16
150	27130B151J00	2.2	1.0	.47	.18
160	27130B161J00	2.2	1.1	.51	.20
180	27130B181J00	2.4	1.1	.56	.22
200	27130B201J00	2.4	1.2	.62	.24
220	27130B221J00	2.7	1.3	.62	.27
240	27130B241J00	2.7	1.3	.68	.30

# Transmitting Capacitors

## Type 271, 272 and 273 Ratings

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>3,000 Peak Volts (continued)</b>					
250	27130B251J00	2.7	1.3	.68	.30
270	27130B271J00	3.1	1.5	.75	.30
300	27130B301J00	3	1.5	.75	.36
330	27130B331J00	3	1.6	.82	.36
360	27130B361J00	3.3	1.6	.91	.39
390	27130B391J00	3.3	1.8	.91	.43
430	27130B431J00	3.6	1.8	1.0	.47
470	27130B471J00	3.6	2.0	1.1	.47
500	27130B501J00	3.6	2.0	1.1	.51
510	27130B511J00	3.6	2.0	1.1	.51
560	27130B561J00	3.9	2.2	1.2	.51
620	27130B621J00	3.9	2.4	1.2	.56
680	27130B681J00	4.3	2.4	1.3	.62
750	27130B751J00	4.3	2.7	1.3	.62
820	27130B821J00	4.3	2.7	1.5	.68
910	27130B911J00	4.7	3.0	1.5	.68
1000	27130B102J00	4.7	3.0	1.6	.75
1100	27130B112J00	5.1	3.3	1.6	.82
1200	27130B122J00	5.1	3.3	1.8	.82
1300	27130B132J00	5.6	3.6	1.8	.91
1500	27130B152J00	5.6	3.9	2.0	.91
1600	27130B162J00	5.6	3.9	2.0	1.0
1800	27130B182J00	6.2	4.3	2.2	1.1
2000	27130B202J00	6.2	4.3	2.4	1.1
2200	27130B222J00	6.8	4.7	2.4	1.2
2400	27130B242J00	6.8	4.7	2.7	1.2
<b>250 Peak Volts</b>					
250000	27202B254J00	15.0	18	15	8.2
<b>500 Peak Volts</b>					
82000	27205B823J00	15.0	18	15	8.2
91000	27205B913J00	15.0	18	15	8.2
100000	27205B104J00	15.0	18	15	8.2
200000	27205B204J00	15.0	18	15	8.2
<b>1,000 Peak Volts</b>					
56000	27210B563J00	15.0	16.0	15	8.2
62000	27210B623J00	15.0	18	15	8.2
68000	27210B683J00	15.0	18	15	8.2
75000	27210B753J00	15.0	18	15	8.2
<b>1,500 Peak Volts</b>					
24000	27215B243J00	13.0	15.0	12.0	6.8
27000	27215B273J00	13.0	15.0	12.0	6.8
30000	27215B303J00	13.0	15.0	12.0	6.8
33000	27215B333J00	13.0	15.0	13.0	7.5
36000	27215B363J00	13.0	16.0	13.0	7.5
39000	27215B393J00	15.0	16.0	13.0	7.5
43000	27215B433J00	15.0	16.0	13.0	7.5
47000	27215B473J00	15.0	16.0	13	7.5
50000	27215B503J00	15.0	16.0	15	7.5
51000	27215B513J00	15.0	16.0	15	7.5
<b>2,000 Peak Volts</b>					
8200	27220B822J00	10.0	10.0	7.5	3.9
9100	27220B912J00	11.0	10.0	8.2	4.3
10000	27220B102J00	11.0	11.0	8.2	4.3
11000	27220B112J00	11.0	11.0	8.2	4.7
12000	27220B122J00	11.0	11.0	9.1	4.7
13000	27220B132J00	12.0	12.0	9.1	5.1
15000	27220B152J00	12.0	12.0	10.0	5.1
16000	27220B162J00	12.0	12.0	10.0	5.6
18000	27220B182J00	12.0	13.0	10.0	5.6
20000	27220B202J00	13.0	13.0	11.0	6.2
22000	27220B222J00	13.0	13.0	11.0	6.2
<b>3,000 Peak Volts</b>					
2700	27230B272J00	8.2	6.8	4.3	2.2
3000	27230B302J00	8.2	6.8	4.7	2.2
3300	27230B332J00	8.2	6.8	4.7	2.4
3600	27230B362J00	8.2	7.5	5.1	2.4
3900	27230B392J00	9.1	7.5	5.6	2.7
4300	27230B432J00	9.1	7.5	5.6	2.7
4700	27230B472J00	9.1	8.2	6.2	3
5000	27230B502J00	9.1	8.2	6.2	3
5100	27230B512J00	9.1	8.2	6.2	3
5600	27230B562J00	9.1	9.1	6.2	3.3
6000	27230B602J00	10.0	9.1	6.8	3.6
6200	27230B622J00	10.0	9.1	6.8	3.6
6800	27230B682J00	10.0	9.1	6.8	3.6
7500	27230B752J00	10.0	9.1	6.8	3.9

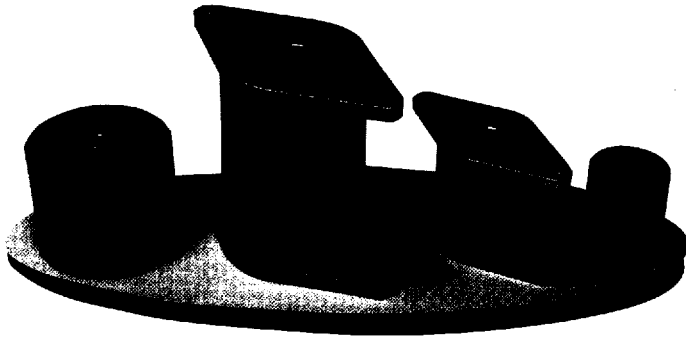
Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>5,000 Peak Volts</b>					
47	27250B470J00	1.5	.62	.20	.062
51	27250B510J00	1.6	.68	.22	.062
56	27250B560J00	1.8	.75	.27	.068
62	27250B620J00	1.8	.82	.30	.075
68	27250B680J00	2.0	.91	.33	.075
75	27250B750J00	2.0	1.0	.36	.082
82	27250B820J00	2.2	1.1	.39	.091
91	27250B910J00	2.4	1.2	.43	.10
100	27250B101J00	2.4	1.2	.47	.10
110	27250B111J00	2.7	1.3	.51	.15
120	27250B121J00	2.7	1.5	.56	.18
130	27250B131J00	3.0	1.6	.62	.22
150	27250B151J00	3.3	1.8	.68	.24
160	27250B161J00	3.3	1.8	.75	.27
180	27250B181J00	3.3	2.0	.82	.30
200	27250B201J00	3.6	2.0	.82	.33
220	27250B221J00	3.6	2.2	.91	.39
240	27250B241J00	3.6	2.4	1.0	.43
250	27250B251J00	3.6	2.4	1.0	.43
270	27250B271J00	3.9	2.4	1.1	.47
300	27250B301J00	3.9	2.7	1.1	.51
330	27250B331J00	4.3	2.7	1.2	.51
360	27250B361J00	4.3	2.7	1.3	.56
390	27250B391J00	4.3	2.7	1.3	.62
430	27250B431J00	4.7	3.0	1.5	.68
470	27250B471J00	4.7	3.3	1.5	.68
500	27250B501J00	4.7	3.3	1.6	.75
510	27250B511J00	4.7	3.3	1.6	.75
560	27250B561J00	5.1	3.6	1.8	.82
600	27250B601J00	5.1	3.6	1.8	.82
620	27250B621J00	5.1	3.6	1.8	.82
680	27250B681J00	5.6	3.9	2.2	.91
750	27250B751J00	5.6	3.9	2.4	1.0
820	27250B821J00	5.6	4.3	2.4	1.1
910	27250B911J00	6.2	4.3	2.4	1.2
1000	27250B102J00	6.2	4.7	2.7	1.2
1100	27250B112J00	6.2	4.7	2.7	1.3
1200	27250B122J00	6.2	4.7	2.7	1.3
1300	27250B132J00	6.8	5.1	3.0	1.3
1500	27250B152J00	6.8	5.1	3.3	1.5
1600	27250B162J00	6.8	5.6	3.6	1.5
1800	27250B182J00	7.5	5.6	3.6	1.6
2000	27250B202J00	7.5	6.2	3.6	1.8
2200	27250B222J00	7.5	6.2	3.9	2.0
2400	27250B242J00	8.2	6.2	4.3	2.0
<b>400 Peak Volts</b>					
1000000	27304B105J00	18.0	25.0	22.0	12.0
<b>600 Peak Volts</b>					
200000	27306B204J00	18.0	25.0	22.0	12.0
250000	27306B254J00	18.0	25.0	22.0	12.0
300000	27306B304J00	18.0	25.0	22.0	12.0
400000	27306B404J00	18.0	25.0	22.0	12.0
500000	27306B504J00	18.0	25.0	22.0	12.0
600000	27306B604J00	18.0	25.0	22.0	12.0
750000	27306B754J00	18.0	25.0	22.0	12.0
<b>2,000 Peak Volts</b>					
100000	27320B104J00	18.0	25.0	22.0	12.0
<b>4,000 Peak Volts</b>					
25000	27340B253J00	18.0	24.0	19.0	11.5
30000	27340B303J00	18.0	24.0	19.0	11.5
40000	27340B403J00	18.0	24.0	20.0	12.0
50000	27340B503J00	18.0	25.0	21.0	12.0
<b>5,000 Peak Volts</b>					
20000	27350B203J00	18.0	23.0	18.0	10.5
<b>8,000 Peak Volts</b>					
200	27380B201J00	7.5	5.0	1.5	.5
250	27380B251J00	7.5	5.0	1.5	.5
500	27380B501J00	8.5	6.0	3.0	1.0
1000	27380B102J00	10.0	8.5	4.5	1.5
2000	27380B202J00	11.5	11.5	7.5	3.0
3000	27380B302J00	12.5	13.5	9.5	4.0
4000	27380B402J00	13.5	15.5	10.5	5.0
4500	27380B452J00	14.0	16.0	11.5	6.0
5000	27380B502J00	14.0	16.0	11.5	6.0
6000	27380B602J00	15.0	17.0	12.5	6.5
8000	27380B802J00	16.0	19.0	14.0	7.5
10000	27380B103J00	17.0	20.0	15.0	8.5

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# Transmitting Capacitors

## Types 291, 292, 293, 294—Cylindrical Case, High-Current and High-Voltage Circuits



Designed for frequencies ranging from 100 kHz to 3 MHz, Transmitting Mica Capacitor Types 291, 292, 293 and 294 are well suited for high-current and high-high-voltage circuits. Cast in cylindrical cases, these capacitors are electrically equivalent to MIL-C-5 Styles CM75 through CM93 in capacitance and current ratings but are far superior in environmental capability, temperature range, physical size, mounting configuration, and reliability.

### Performance Highlights

- Peak Voltage: 1,000 to 30,000 Peak Volts
- Capacitance Range: 47 pF to 100,000 pF
- Capacitance Tolerance:  $\pm 2\%$  (G),  $\pm 5\%$  (J)
- Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Cast in Cylindrical Cases
- Highly shock resistant
- Convenient mounting

### Type 291 Ratings

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>1,000 Peak Volts</b>					
75000	29110B753J00	18.0	22.0	22.0	16.0
82000	29110B823J00	18.0	22.0	22.0	16.0
91000	29110B913J00	18.0	22.0	22.0	16.0
100000	29110B104J00	18.0	22.0	22.0	18.0
<b>1,500 Peak Volts</b>					
30000	29115B303J00	18.0	22.0	18.0	12.0
33000	29115B333J00	18.0	22.0	20.0	13.0
36000	29115B363J00	18.0	22.0	20.0	13.0
39000	29115B393J00	18.0	22.0	20.0	13.0
43000	29115B433J00	18.0	22.0	22.0	13.0
47000	29115B473J00	18.0	22.0	22.0	15.0
51000	29115B513J00	18.0	22.0	22.0	15.0
56000	29115B563J00	18.0	22.0	22.0	15.0
62000	29115B623J00	18.0	22.0	22.0	16.0
68000	29115B683J00	18.0	22.0	22.0	16.0
<b>2,000 Peak Volts</b>					
18000	29120B183J00	18.0	20.0	16.0	11.0
20000	29120B203J00	18.0	22.0	18.0	11.0
22000	29120B223J00	18.0	22.0	18.0	11.0
24000	29120B243J00	18.0	22.0	18.0	12.0
27000	29120B273J00	18.0	22.0	18.0	12.0
<b>3,000 Peak Volts</b>					
12000	29130B123J00	18.0	20.0	16.0	9.1
13000	29130B133J00	18.0	20.0	16.0	10.0
15000	29130B153J00	18.0	20.0	16.0	10.0
16000	29130B163J00	18.0	20.0	16.0	10.0
<b>4,000 Peak Volts</b>					
5100	29140B512J00	16.0	16.0	12.0	6.2
5600	29140B562J00	16.0	18.0	13.0	6.8
6000	29140B602J00	16.0	18.0	13.0	7.5
6200	29140B622J00	16.0	18.0	13.0	7.5
6800	29140B682J00	16.0	18.0	13.0	7.5

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>4,000 Peak Volts (continued)</b>					
7500	29140B752J00	18.0	18.0	13.0	7.5
8200	29140B822J00	18.0	20.0	15.0	8.2
9100	29140B912J00	18.0	20.0	15.0	8.2
10000	29140B103J00	18.0	20.0	15.0	9.1
11000	29140B113J00	18.0	20.0	15.0	9.1
<b>6,000 Peak Volts</b>					
47	29160B470J00	2.0	1.2	.51	.16
50	29160B500J00	2.0	1.3	.56	.18
51	29160B510J00	2.0	1.3	.56	.18
56	29160B560J00	2.2	1.3	.56	.18
62	29160B620J00	2.2	1.5	.62	.20
68	29160B680J00	2.4	1.5	.68	.22
75	29160B750J00	2.4	1.6	.68	.22
82	29160B820J00	2.7	1.8	.75	.24
91	29160B910J00	2.7	1.8	.91	.27
100	29160B101J00	3.0	2.0	.91	.30
110	29160B111J00	3.0	2.2	1.0	.30
120	29160B121J00	3.3	2.2	1.0	.33
130	29160B131J00	3.3	2.4	1.1	.36
150	29160B151J00	3.6	2.4	1.2	.39
160	29160B161J00	3.9	2.7	1.3	.43
180	29160B181J00	4.3	3.0	1.5	.47
200	29160B201J00	4.3	3.0	1.5	.51
220	29160B221J00	4.7	3.3	1.6	.56
240	29160B241J00	4.7	3.6	1.8	.62
270	29160B271J00	5.1	3.6	2.0	.62
300	29160B301J00	5.1	3.9	2.0	.68
330	29160B331J00	5.6	4.3	2.2	.75
360	29160B361J00	6.2	4.3	2.4	.75
390	29160B391J00	6.2	4.7	2.7	.82
400	29160B401J00	6.2	4.7	2.7	.82
430	29160B431J00	6.8	4.7	2.7	.82
470	29160B471J00	6.8	5.1	3.0	.91
500	29160B501J00	6.8	5.1	3.0	1.0

# Transmitting Capacitors

## Types 291, 292 and 293 Ratings

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>6,000 Peak Volts (continued)</b>					
510	29160B511J00	6.8	5.1	3.0	1.0
560	29160B561J00	7.5	5.6	3.3	1.1
620	29160B621J00	8.2	6.2	3.6	1.2
680	29160B681J00	8.2	6.2	3.9	1.3
750	29160B751J00	8.2	6.8	3.9	1.5
820	29160B821J00	9.1	6.8	4.3	1.5
910	29160B911J00	9.1	7.5	4.7	1.6
1000	29160B102J00	10.0	7.5	5.1	1.8
1100	29160B112J00	10.0	8.2	5.1	2.0
1200	29160B122J00	11.0	8.2	5.6	2.2
1300	29160B132J00	11.0	9.1	6.2	2.2
1500	29160B152J00	12.0	9.1	6.2	2.4
1600	29160B162J00	12.0	10.0	6.8	2.7
1800	29160B182J00	13.0	11.0	7.5	3.0
2000	29160B202J00	13.0	11.0	7.5	3.3
2200	29160B222J00	13.0	12.0	8.2	3.6
2400	29160B242J00	15.0	13.0	9.1	3.9
2700	29160B272J00	15.0	13.0	9.1	3.9
3000	29160B302J00	15.0	13.0	9.1	4.3
3300	29160B332J00	15.0	15.0	10.0	4.7
3600	29160B362J00	16.0	15.0	11.0	5.1
3900	29160B392J00	16.0	15.0	11.0	5.6
4000	29160B402J00	16.0	15.0	11.0	5.6
4300	29160B432J00	16.0	15.0	11.0	5.6
4700	29160B472J00	16.0	16.0	12.0	6.2
5000	29160B502J00	16.0	16.0	12.0	6.2
<b>1,500 Peak Volts</b>					
75000	29215B753J00	20.0	39.0	33.0	20.0
82000	29215B823J00	20.0	39.0	33.0	20.0
91000	29215B913J00	20.0	39.0	33.0	20.0
100000	29215B104J00	20.0	39.0	36.0	20.0
<b>2,000 Peak Volts</b>					
30000	29220B303J00	20.0	33.0	24.0	15.0
33000	29220B333J00	20.0	33.0	24.0	15.0
36000	29220B363J00	20.0	33.0	27.0	16.0
39000	29220B393J00	20.0	36.0	27.0	16.0
43000	29220B433J00	20.0	36.0	27.0	16.0
47000	29220B473J00	20.0	36.0	27.0	18.0
51000	29220B513J00	20.0	36.0	30.0	18.0
56000	29220B563J00	20.0	36.0	30.0	18.0
62000	29220B623J00	20.0	39.0	30.0	18.0
68000	29220B683J00	20.0	39.0	33.0	20.0
<b>3,000 Peak Volts</b>					
18000	29230B183J00	20.0	30.0	20.0	12.0
20000	29230B203J00	20.0	30.0	22.0	13.0
22000	29230B223J00	20.0	30.0	22.0	13.0
24000	29230B243J00	20.0	33.0	24.0	13.0
27000	29230B273J00	20.0	33.0	24.0	13.0
<b>4,000 Peak Volts</b>					
12000	29240B123J00	20.0	27.0	18.0	10.0
13000	29240B133J00	20.0	27.0	20.0	10.0
15000	29240B153J00	20.0	27.0	20.0	11.0
16000	29240B163J00	20.0	27.0	20.0	11.0
<b>5,000 Peak Volts</b>					
5600	29250B562J00	20.0	20.0	13.0	6.8
6000	29250B602J00	20.0	22.0	15.0	6.8
6200	29250B622J00	20.0	22.0	15.0	6.8
6800	29250B682J00	20.0	22.0	15.0	7.5
7500	29250B752J00	20.0	22.0	15.0	7.5
8200	29250B822J00	20.0	24.0	16.0	8.2
9100	29250B912J00	20.0	24.0	16.0	8.2
10000	29250B103J00	20.0	24.0	18.0	9.1
11000	29250B113J00	20.0	27.0	18.0	9.1
<b>6,000 Peak Volts</b>					
4700	29260B472J00	20.0	20.0	13.0	6.2
5000	29260B502J00	20.0	20.0	13.0	6.2
5100	29260B512J00	20.0	20.0	13.0	6.2
<b>8,000 Peak Volts</b>					
2200	29280B222J00	18.0	13.0	9.1	3.9
2400	29280B242J00	18.0	15.0	10.0	4.3
2700	29280B272J00	18.0	15.0	10.0	4.3
3000	29280B302J00	18.0	16.0	10.0	4.7
3300	29280B332J00	20.0	16.0	11.0	4.7
3600	29280B362J00	20.0	18.0	11.0	5.1
3900	29280B392J00	20.0	18.0	12.0	5.6
4000	29280B402J00	20.0	18.0	12.0	5.6
4300	29280B432J00	20.0	18.0	12.0	5.6

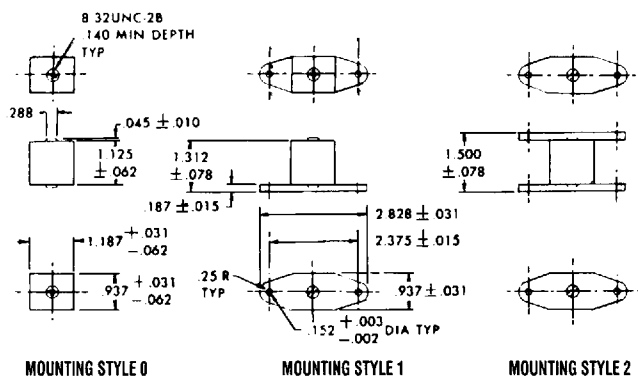
Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)			
		3 MHz	1 MHz	.3 MHz	.1 MHz
<b>10,000 Peak Volts</b>					
47	292100B470J00	2.7	2.0	.91	.27
51	292100B510J00	2.7	2.0	1.0	.30
56	292100B560J00	3.0	2.2	1.0	.30
62	292100B620J00	3.3	2.2	1.1	.33
68	292100B680J00	3.3	2.4	1.2	.33
75	292100B750J00	3.6	2.4	1.2	.36
82	292100B820J00	3.6	2.7	1.3	.39
91	292100B910J00	3.9	2.7	1.5	.43
100	292100B101J00	4.3	3.0	1.5	.47
110	292100B111J00	4.3	3.0	1.6	.51
120	292100B121J00	4.7	3.3	1.6	.56
130	292100B131J00	4.7	3.6	1.8	.62
150	292100B151J00	5.1	3.6	1.8	.62
160	292100B161J00	5.1	3.9	2.0	.75
180	292100B181J00	5.6	4.3	2.2	.82
200	292100B201J00	6.2	4.3	2.4	.82
220	292100B221J00	6.2	4.7	2.4	.91
240	292100B241J00	6.8	5.1	2.7	1.0
250	292100B251J00	6.8	5.1	2.7	1.0
270	292100B271J00	6.8	5.1	2.7	1.0
300	292100B301J00	7.5	5.6	3.0	1.1
330	292100B331J00	7.5	5.6	3.0	1.2
360	292100B361J00	8.2	6.2	3.6	1.2
390	292100B391J00	8.2	6.2	3.6	1.3
430	292100B431J00	9.1	6.2	3.6	1.3
470	292100B471J00	9.1	6.8	3.9	1.5
500	292100B501J00	9.1	6.8	3.9	1.6
510	292100B511J00	9.1	6.8	3.9	1.6
560	292100B561J00	10.0	7.5	4.3	1.6
620	292100B621J00	11.0	8.2	4.7	1.8
680	292100B681J00	11.0	8.2	4.7	1.8
750	292100B751J00	11.0	8.2	5.1	2.0
820	292100B821J00	12.0	9.1	5.1	2.2
910	292100B911J00	12.0	9.1	5.6	2.2
1000	292100B102J00	12.0	10.0	6.2	2.4
1100	292100B112J00	13.0	10.0	6.2	2.7
1200	292100B122J00	15.0	11.0	6.8	2.7
1300	292100B132J00	15.0	11.0	6.8	2.7
1500	292100B152J00	15.0	12.0	7.5	3.0
1600	292100B162J00	16.0	12.0	7.5	3.3
1800	292100B182J00	16.0	13.0	8.2	3.6
2000	292100B202J00	16.0	13.0	8.2	3.6

Cap pF	Catalog Number	Rated Current At Frequencies (rms amperes)				Case Height
		3 MHz	1 MHz	.3 MHz	.1 MHz	
<b>2,000 Peak Volts</b>						
75000	29320B753J00	24.0	51.0	39.0	24.0	2.5
82000	29320B823J00	24.0	51.0	39.0	24.0	2.5
91000	29320B913J00	24.0	51.0	39.0	24.0	2.75
100000	29320B104J00	24.0	51.0	39.0	24.0	2.75
<b>3,000 Peak Volts</b>						
27000	29330B273J00	24.0	51.0	33.0	18.0	2.5
30000	29330B303J00	24.0	51.0	33.0	20.0	2.5
33000	29330B333J00	24.0	51.0	33.0	20.0	2.5
36000	29330B363J00	24.0	51.0	36.0	22.0	2.5
39000	29330B393J00	24.0	51.0	36.0	22.0	2.5
43000	29330B433J00	24.0	51.0	36.0	22.0	2.5
47000	29330B473J00	24.0	51.0	36.0	22.0	2.5
51000	29330B513J00	24.0	51.0	36.0	24.0	2.75
56000	29330B563J00	24.0	51.0	36.0	24.0	2.75
62000	29330B623J00	24.0	51.0	39.0	24.0	3
68000	29330B683J00	24.0	51.0	39.0	24.0	3
<b>5,000 Peak Volts</b>						
12000	29350B123J00	24.0	43.0	27.0	13.0	2.5
13000	29350B133J00	24.0	43.0	27.0	13.0	2.5
15000	29350B153J00	24.0	43.0	27.0	15.0	2.5
16000	29350B163J00	24.0	47.0	30.0	15.0	2.5
18000	29350B183J00	24.0	47.0	30.0	16.0	2.75
20000	29350B203J00	24.0	47.0	30.0	18.0	2.75
22000	29350B223J00	24.0	47.0	30.0	18.0	3
24000	29350B243J00	24.0	51.0	33.0	18.0	3.25
<b>8,000 Peak Volts</b>						
9100	29380B912J00	24.0	39.0	24.0	12.0	3.25
10000	29380B103J00	24.0	39.0	24.0	12.0	3.25
11000	29380B113J00	24.0	39.0	27.0	13.0	3.25

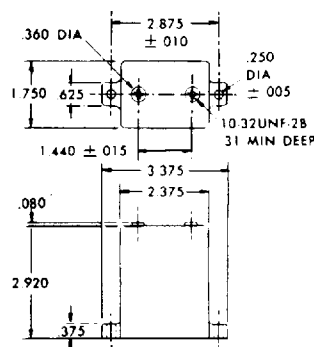


# Transmitting Capacitors

## Type 271

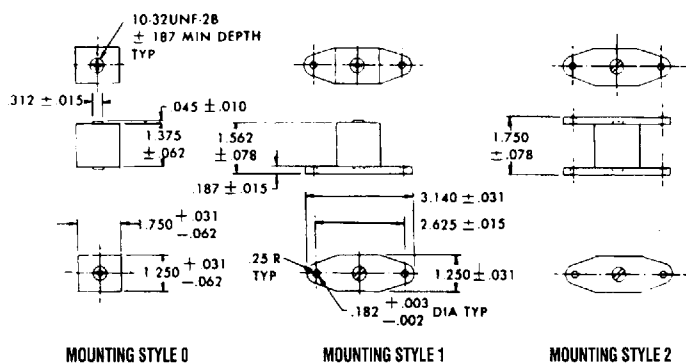


## Type 273



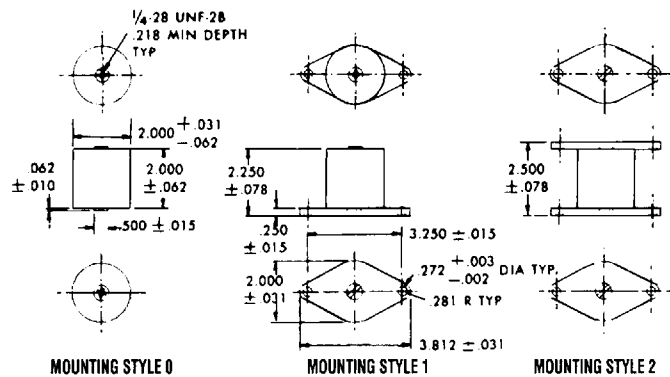
TOLERANCES UNLESS OTHERWISE SPECIFIED: ±031

## Type 272

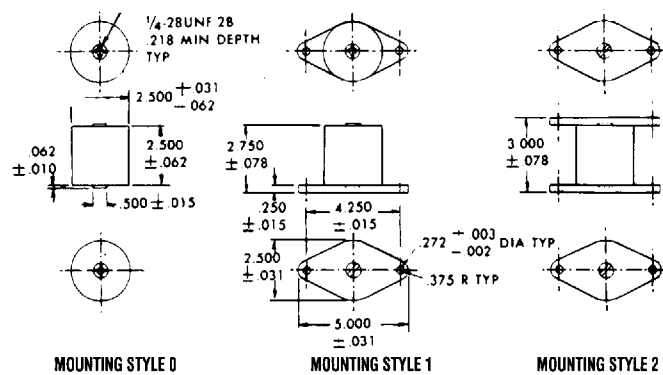


## Cast-Case Styles

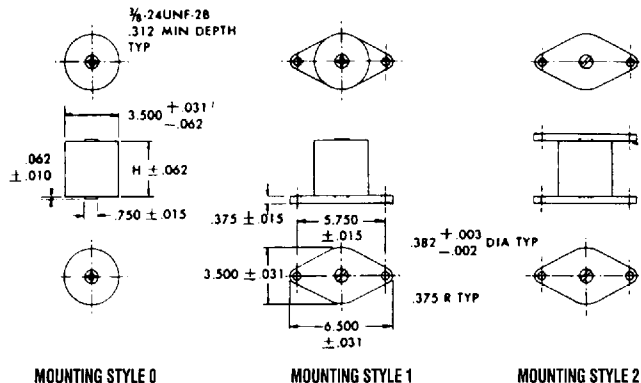
## Type 291



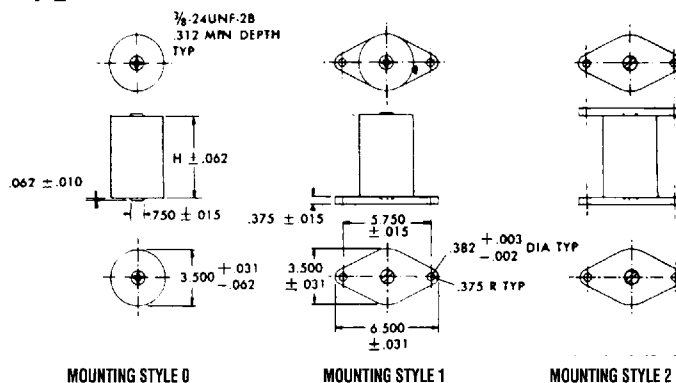
## Type 292



## Type 293



## Type 294



## Specifications

**Capacitance** is within tolerance when measured at these frequencies:

1-1000 pF @ 1 MHz  
> 1000 pF @ 1 kHz

**Dissipation Factor** is typically less than 0.05% when measured as above. Dissipation factor (DF) equals  $2\pi fRC$ , where  $f$  is the test frequency,  $R$  is the equivalent series resistance ( $\Omega$ ), and  $C$  is nominal capacitance (pF). "Q" is the reciprocal of the dissipation factor.

**Operating Temperature Range** is  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

**Insulation Resistance** is no less than 7500 M $\Omega$  when measured at 100 Vdc.

**Temperature Coefficient and Capacitance Drift:** Measure the capacitors' capacitance at  $25^{\circ}\text{C}$ ,  $55^{\circ}\text{C}$ ,  $25^{\circ}\text{C}$ ,  $125^{\circ}\text{C}$ , and at  $25^{\circ}\text{C}$  after stabilizing at each temperature. The capacitance will meet the limits of the Characteristic table shown in Ordering Information.

**Rated Peak Voltage** is not to be exceeded in actual use. Voltage ratings are in the listings and apply under the following conditions:

Temperature: Within the specified operating temperature range.

Altitude: Up to 50,000 feet or 3.4 inches of mercury.

Relative Humidity: Up to 80%.

Frequency: As specified.

Where pulse conditions are encountered, contact us.

**Withstanding Voltage:** Capacitors will withstand application of an ac potential between terminals having an rms value equal to the rated peak voltage at a frequency of 100 Hz or less without damage, arcing or breakdown. Apply the potential by raising the voltage from zero to the specified value. Apply the full potential for a minimum of 5 seconds.

**Case Insulation:** Capacitor cases will withstand, without damage, arcing or breakdown, a 60-Hz peak ac potential equal to twice the rated peak voltage applied between the terminals connected together and a metal electrode touching the case. Apply this potential for between 1 and 5 seconds.

**Current Ratings** at various frequencies are in the listings and apply under the following conditions:

Temperature:  $125^{\circ}\text{C}$  maximum

Derating Factor: None

**Vibration:** Capacitors will withstand vibrational forces occurring at rates of from 10 to 55 Hz for  $4\frac{1}{2}$  hours. The total excursion during vibration is 0.06 inches. At the end of this period, make the following inspections and tests:

**Visual and Mechanical Inspection:** No perceptible deterioration.

**Withstanding Voltage:** As specified under Withstanding Voltage.

**Insulation Resistance:** No less than 7500 M $\Omega$ .

**Capacitance Change:** Not to exceed 3% of the nominal value or one picofarad, whichever is greater.

**Temperature and Immersion Cycling:** Capacitors will withstand the temperature and immersion cycles indicated in the tables below. Follow three temperature cycles by two immersion cycles. Make the measurements listed below no more than 30 minutes following the final immersion cycle:

**Withstanding Voltage:** As specified under Withstanding Voltage.

**Insulation Resistance:** No less than 7500 M $\Omega$ .

**Capacitance:** Change not to exceed 4% of the nominal value or one picofarad, whichever is greater.

## Temperature Cycling Test Conditions

Steps	Temp. ( $^{\circ}\text{C}$ )	Interval (Minutes)
1	$-55 + 0$ $-3$	30
2	$25 + 10$ $-5$	10 to 15
3	$125 + 3$ $-0$	30
4	$25 + 10$ $-5$	10 to 15

## Immersion Test Conditions

- Number of cycles: 2
- Duration of each immersion: 15 minutes
- Immersion bath: Saturated solution of sodium chloride and water
- Temp. of hot bath:  $65 \pm 3^{\circ}$
- Temp. of cold bath: 25

**Life Test:** Subject all capacitors to a temperature of  $55^{\circ}\text{C}$  for 48 hours. Then subject units cast in rectangular cases (Types 271, 272, and 273) to a 60-Hz rms voltage equal to the rated peak voltage for 250 hours. Subject units cast in cylindrical cases (Types 291, 292, 293, and 294) to a 60-Hz rms voltage equal to 90% of the rated peak voltage for 250 hours. In both tests, maintain the temperature at  $125^{\circ}\text{C}$ . After test, the capacitors will meet these requirements:

**Withstanding Voltage:** As specified under Withstanding Voltage.

**Insulation Resistance:** No less than 7500 M $\Omega$ .

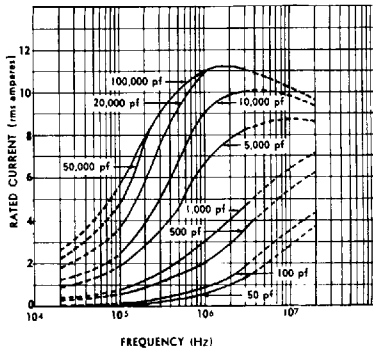
**Capacitance Change:** Within the limits given in the table below or one picofarad, whichever is greater.

Characteristic	Maximum Cap. Change
B	$\pm 8\%$
C	$\pm 3\%$
D	$\pm 3\%$
E	$\pm 3\%$

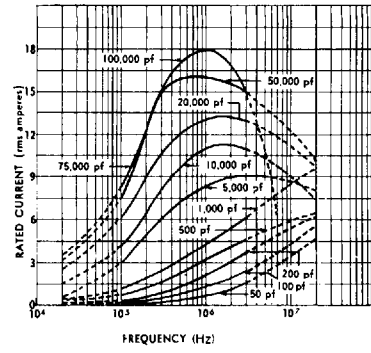
In addition, the capacitor must show no visual damage and the markings must be legible.

# Transmitting Capacitors

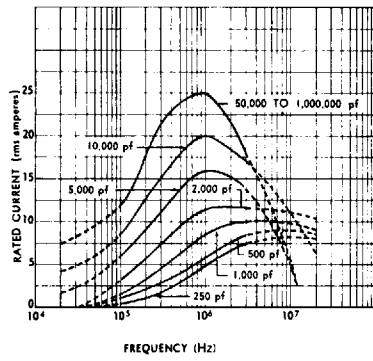
## Type 271 (CM 66)



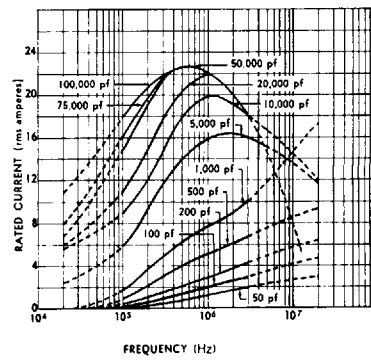
## Type 272 (CM 71)



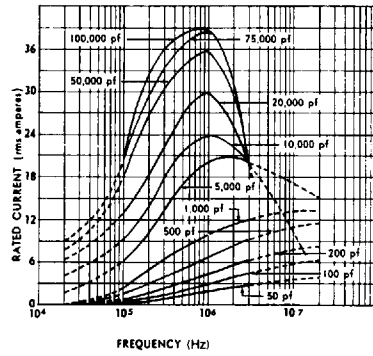
## Type 273



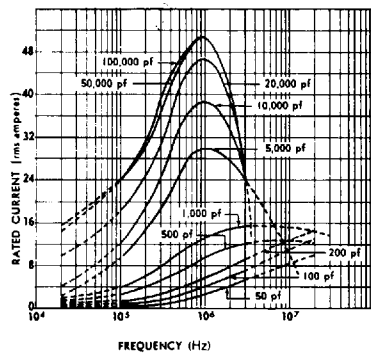
## Type 291 (CM 76)



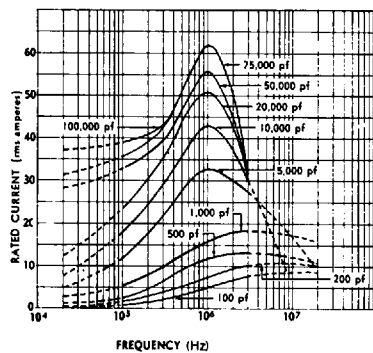
## Type 292 (CM 81)



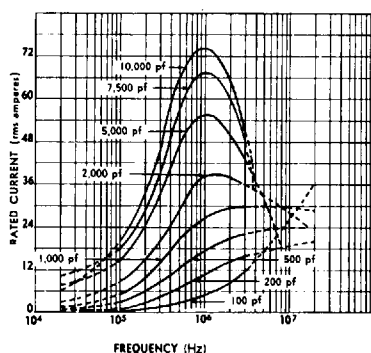
## Type 293 (CM 86)



## Type 294 (CM 91)



## Type G5 (CM 95)



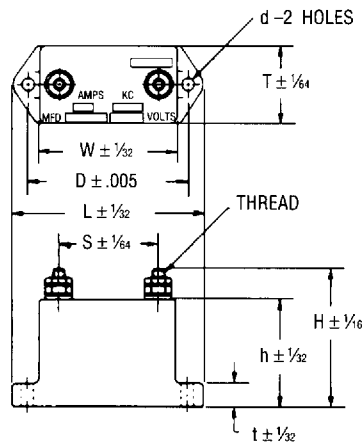


# Transmitting Capacitors

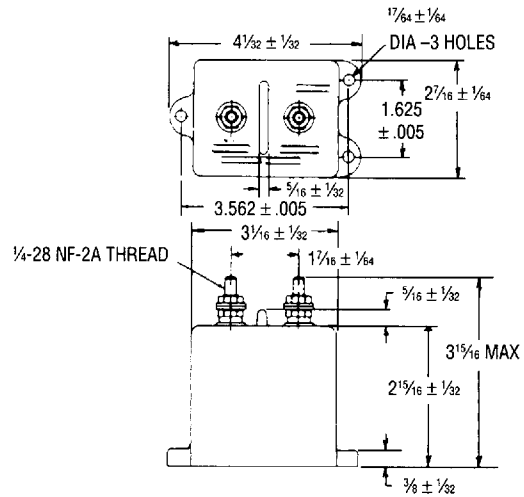
## Potted-Case Styles

**Type F1** (available in same ratings as 271)

**Type F2** (available in same ratings as 272)



**Type F3** (available in same ratings as 273)

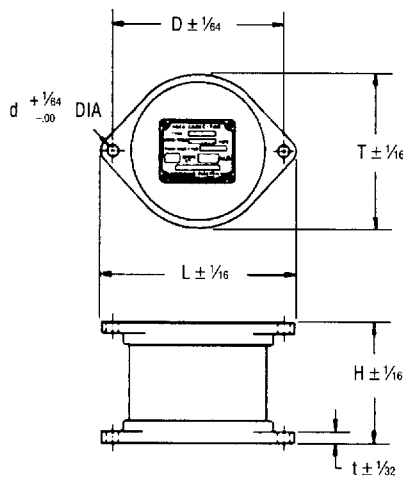


**Type G1** (available in same ratings as 291)

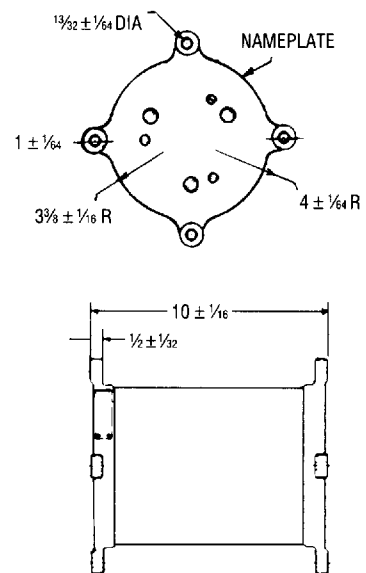
**Type G2** (available in same ratings as 292)

**Type G3** (available in same ratings as 293)

**Type G4** (available in same ratings as 294)



**Type G5** (ratings from 50 pF, 35,000 V<sub>pk</sub> to 10,000 pF, 15,000 V<sub>pk</sub>)



Type	L	H	T	t	h	W	d(min.)	D	S	Thread
F1	2.813	1.969	.938	.25	1.469	2.031	.150	2.375	1.5	8-32 NC-2A
F2	3.109	2.25	1.25	.375	1.75	2.281	.187	2.625	1.625	10-32 NF-2A
F3	4.031	3.938	2.438	.375	2.938	3.063	.266	3.562	1.438	1/4-28 NF-2A
G1	3.813	2.5	2.813	.25			.266	3.25		
G2	5	3	3.5	.25			.266	4.25		
G3	6.5	4	5	.375			.375	5.75		
G4	6.5	5.75	5	.375			.375	5.75		
G5	9	10	6.75	.5			.406			

# Transmitting Capacitors

## Ordering Information

Order by complete part number, as below. For other options, write your requirements on your quote request or purchase order.

### Cast-Case Transmitting Mica Capacitors

271	30	B	470	J	O	0
CDE Type	Rated Peak Voltage (in hundreds of peak working volts)	Characteristic	Capacitance 470 = 47 pF 361 = 360 pF 122 = 1200 pF	Capacitance Tolerance G = ±2% J = ±5%	Temperature Range 0 = -55°C to +125°C	Mounting Style 0 = No mounting plate 1 = Mounting plate on bottom only 2 = Mounting plates on top and bottom

	Temp. Coeff. ppm/°C	Capacitance Drift	Standard Cap. Range
B	Not specified	Not specified	
C	-200 to +200	±(0.5% + 0.1pF)	1-18 pF
D	-100 to +100	±(0.3% + 0.1pF)	
E	- 20 to +100	±(0.1% + 0.1pF)	20-82 pF

### Potted-Case Styles

Transmitting mica capacitors are available in potted-case packages with the same ratings as the 27 and 29 cast-case series. To order potted styles, use the table at the right to find the equivalent cast type. Then use the part numbering below. Type G5, which has no cast equivalent, covers ratings of 50 pF at 35,000 V<sub>pk</sub> to 10,000 pF at 15,000 V<sub>pk</sub>. To order, contact us.

Potted Case Type	Equivalent Cast Type
F1	271
F2	272
F3	273
G1	291
G2	292
G3	293
G4	294
G5	—

F1	30	B	470	J	M
CDE Type	Rated Peak Voltage (in hundreds of peak working volts)	Characteristic	Capacitance 470 = 47 pF 361 = 360 pF 122 = 1200 pF	Capacitance Tolerance G = ±2% J = ±5% (standard)	Temperature Range M = -55°C to +70°C

## Military Style Numbers

For the commercial equivalent to military style numbers CM65 through CM95, see the table below.

Military Style No.	Equivalent CDE Type
CM65	F1
CM66	271, Mounting Style 0
CM67	271, Mounting Style 1
CM68	271, Mounting Style 2
CM70	F2
CM71	272, Mounting Style 0
CM72	272, Mounting Style 1
CM73	272, Mounting Style 2
CM75	G1
CM76	291, Mounting Style 0
CM77	291, Mounting Style 1
CM78	291, Mounting Style 2
CM80	G2

Military Style No.	Equivalent CDE Type
CM81	292, Mounting Style 0
CM82	292, Mounting Style 1
CM83	292, Mounting Style 2
CM85	G3
CM86	293, Mounting Style 0
CM87	293, Mounting Style 1
CM88	293, Mounting Style 2
CM90	G4
CM91	294, Mounting Style 0
CM92	294, Mounting Style 1
CM93	294, Mounting Style 2
CM95	G5