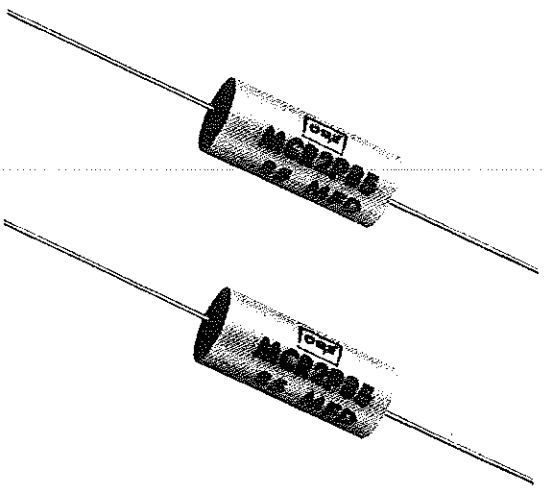
METALLIZED POLYCARBONATE—TUBULAR STYLE

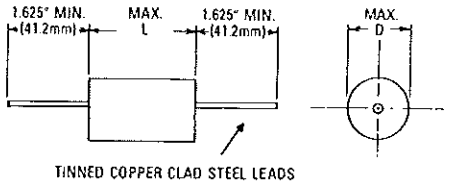
MTC/MCR

Type MCR is a non-inductively wound, metallized polycarbonate, wrapped style capacitor. Type MCR film-wrap, epoxy end-seal encasement offers superior moisture resistance in a small package. It features high operating temperature and capacitance stability. Operating temperature range is −55°C to +125°C. The capacitance change over this temperature range is −2.5% +2.0%, with reference made to +25°C measurement. Capacitance drift is .5% max., while dissipation factor is less than .30% at +25°C. IR characteristics are:



Temp.	Megs. x Mfd.	Need Not Exceed–Megohms
+ 25°C	50,000	200,000
+ 85°C	3,000	30,000
+125°C	200	2,000

WIRE SIZES FOR CASE DIAMETERS
#24 AWG. up to .282" (7.16mm) diameter.
#22 AWG. from .283" (7.19mm) to .532" (13.51mm).
#20 AWG. from .533" (13.54mm) to .687" (17.45mm)
#18 AWG. .688" (17.48mm) diameter and over.



TINNED COPPER CLAD STEEL LEADS

Standard Ratings

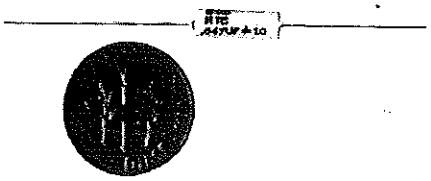
CAP. MFD.	100V †Type MCR	D x L Inches	†Type MCR	D x L Inches	†Type MCR	D x L Inches	†Type MCR	D x L Inches
	100V DCW		200V DCW		400V DCW		600V DCW	
.01			2S1	.182 x .625	4S1	.232 x .625	6S1	.277 x .812
.015			2S15	.207 x .625	4S15	.232 x .750	6S15	.327 x .812
.022			2S22	.217 x .625	4S22	.257 x .750	6S22	.382 x .812
.033			2S33	.247 x .625	4S33	.292 x .750	6S33	.452 x .812
.047			2S47	.272 x .625	4S47	.352 x .750	6S47	.407 x 1.125
.068			2S68	.247 x .750	4S68	.407 x .750	6S68	.467 x 1.125
.1	1P1	.282 x .625	2P1	.307 x .750	4P1	.377 x 1.062	6P1	.587 x 1.125
.15	1P15	.282 x .750	2P15	.342 x .750	4P15	.432 x 1.062	6P15	.627 x 1.312
.22	1P22	.327 x .750	2P22	.402 x .750	4P22	.457 x 1.312	6P22	.732 x 1.312
.33	1P33	.382 x .750	2P33	.462 x .750	4P33	.497 x 1.562	6P33	.732 x 1.812
.47	1P47	.372 x .937	2P47	.402 x 1.062	4P47	.612 x 1.562	6P47	.837 x 1.812
.68	1P68	.437 x .937	2P68	.425 x 1.062	4P68	.712 x 1.562	6P68	.987 x 1.812
1.0	1W1	.467 x 1.062	2W1	.592 x 1.062	4W1	.787 x 1.812	6W1	1.218 x 1.812
1.5	1W1P5	.592 x 1.062	2W1P5	.637 x 1.312	4W1P5	.927 x 1.812		
2.0	1W2	.622 x 1.312	2W2	.692 x 1.312	4W2	1.052 x 1.812		
3.0	1W3	.687 x 1.437	2W3	.762 x 1.562	4W3	1.155 x 2.312		
4.0	1W4	.737 x 1.562	2W4	.807 x 1.812	4W4			
5.0	1W5	.812 x 1.562	2W5	.887 x 1.812	4W5			

†Order by complete type number; e.g. MCR2S22K.
STANDARD CAPACITANCE TOLERANCE: ±20%. Add "K" to part number, e.g. MCR2S22K.
For ±5% add "J" to part number.
For ±2% add "G" to part number.
For ±1% add "F" to part number.
For mm, convert based on 25.4 mm per inch.

METALLIZED POLYCARBONATE, FILM WRAP, SUBMINIATURE TUBULAR

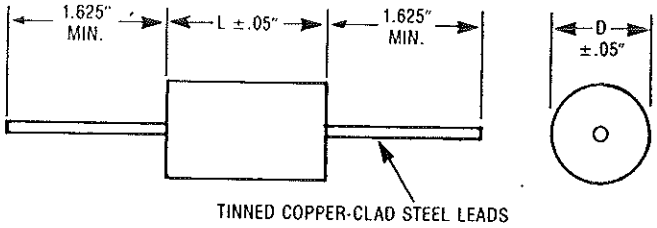
The subminiature sizes are smaller than other metallized polycarbonate capacitors, permitting increased density in packaging. The use of ultra-thin metallized dielectric (as thin as 1.5μm) has resulted in reduced sizes for low voltage applications, without sacrificing quality. They exhibit higher insulation resistance, lower dissipation factor and better capacitance stability than polyester dielectric capacitors.

Operation at −55°C to +125°C without voltage derating permits use in high temperature environments.



MTC 05 W1 K

- K — Tolerance
- W1 — Capacitance
- 05 — DC Voltage Rating
- MTC — Type No.



WORKING VOLTAGE:
05 - 50 VDC
08 - 80 VDC
1 - 100 VDC
Z - 150 VDC

TOLERANCES:
K ±10% (standard)
J ±5%
G ±2%
F ±1%

Lead Sizes for Case Diameters
#24 AWG — up to and including .28"
#22 AWG — from .29" to .53"
#20 AWG — from .54" to .68"
#18 AWG — .69" and larger

Standard Ratings

CAP. MFD.	†Type MTC-	D x L Inches	†Type MTC-	D x L Inches	†Type MTC-	D x L Inches	†Type MTC-	D x L Inches
50 VDC			80 VDC		100 VDC		150 VDC	
.047	05S47	.14 x .40	08S47	.14 x .40	1S47	.14 x .40	ZS47	.19 x .40
.056	05S56	.14 x .40	08S56	.14 x .40	1S56	.14 x .40	ZS56	.21 x .40
.068	05S68	.14 x .40	08S68	.14 x .40	1S68	.14 x .40	ZS68	.18 x .53
.082	05S82	.14 x .40	08S82	.14 x .40	1S82	.14 x .53	ZS82	.19 x .53
.10	05P1	.14 x .40	08P1	.14 x .40	1P1	.14 x .53	ZP1	.21 x .53
.12	05P12	.16 x .40	08P12	.16 x .40	1P12	.15 x .53	ZP12	.23 x .53
.15	05P15	.16 x .40	08P15	.18 x .40	1P15	.16 x .53	ZP15	.25 x .53
.18	05P18	.16 x .40	08P18	.19 x .40	1P18	.17 x .53	ZP18	.27 x .53
.22	05P22	.17 x .40	08P22	.21 x .40	1P22	.19 x .53	ZP22	.30 x .53
.27	05P27	.19 x .40	08P27	.23 x .40	1P27	.21 x .53	ZP27	.28 x .68
.33	05P33	.20 x .40	08P33	.25 x .40	1P33	.23 x .53	ZP33	.31 x .68
.39	05P39	.17 x .53	08P39	.21 x .53	1P39	.21 x .68	ZP39	.33 x .68
.47	05P47	.18 x .53	08P47	.23 x .53	1P47	.22 x .68	ZP47	.36 x .68
.56	05P56	.20 x .53	08P56	.24 x .53	1P56	.24 x .68	ZP56	.40 x .68
.68	05P68	.22 x .53	08P68	.27 x .53	1P68	.27 x .68	ZP68	.41 x .78
.82	05P82	.24 x .53	08P82	.25 x .68	1P82	.29 x .68	ZP82	.44 x .78
1.0	05W1	.26 x .53	08W1	.27 x .68	1W1	.32 x .68	ZW1	.49 x .78
1.2	05W1P2	.24 x .68	08W1P2	.29 x .68	1W1P2	.33 x .78	ZW1P2	.45 x .90
1.5	05W1P5	.26 x .68	08W1P5	.33 x .68	1W1P5	.36 x .78	ZW1P5	.51 x .90
1.8	05W1P8	.29 x .68	08W1P8	.33 x .78	1W1P8	.34 x .90	ZW1P8	.55 x .90
2.0	05W2	.30 x .68	08W2	.35 x .78	1W2	.35 x .90	ZW2	.58 x .90
2.2	05W2P2	.32 x .68	08W2P2	.37 x .78	1W2P2	.37 x .90	ZW2P2	.61 x .90
3.0	05W3	.34 x .78	08W3	.36 x .90	1W3	.43 x .90	ZW3	.65 x 1.08
3.3	05W3P3	.36 x .78	08W3P3	.38 x .90	1W3P3	.45 x .90	ZW3P3	.69 x 1.08
4.0	05W4	.34 x .90	08W4	.42 x .90	1W4	.42 x 1.20	ZW4	.70 x 1.20
4.7	05W4P7	.36 x .90	08W4P7	.45 x .90	1W4P7	.46 x 1.20		
5.0	05W5	.37 x .90	08W5	.43 x 1.08	1W5	.47 x 1.20		
6.0	05W6	.41 x .90	08W6	.47 x 1.08	1W6	.52 x 1.20		
6.8	05W6P8	.43 x .90	08W6P8	.49 x 1.08	1W6P8	.55 x 1.20		
7.0	05W7	.44 x .90	08W7	.50 x 1.08	1W7	.56 x 1.20		
8.0	05W8	.43 x 1.08	08W8	.54 x 1.08	1W8	.60 x 1.20		
9.0	05W9	.46 x 1.08	08W9	.57 x 1.08	1W9	.63 x 1.20		
10.0	05W10	.48 x 1.08	08W10	.60 x 1.08	1W10	.67 x 1.20		
12.0	05W12	.52 x 1.08	08W12	.61 x 1.20				
15.0	05W15	.54 x 1.20	08W15	.68 x 1.20				
20.0	05W20	.63 x 1.20						
25.0	05W25	.70 x 1.20						
30.0	05W30	.77 x 1.20						

†Order by complete part number, e.g., MTC05W1K is 1.0 μF, 50 VDC, ±10%.

For conversion to metric dimensions, use 25.4 millimeters = 1 inch.