MDC

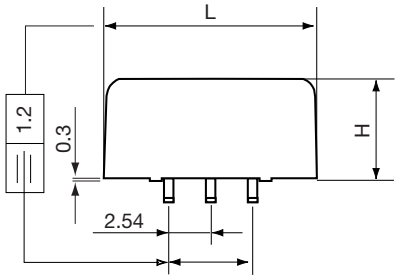
- **Metallized polyester (PET) SMD in DIL**
- **Low ESR and ESL**
- **Three and four pole connection possible**
- **Good temperature stability**
- **No voltage dependence of capacitance and dissipation factor**

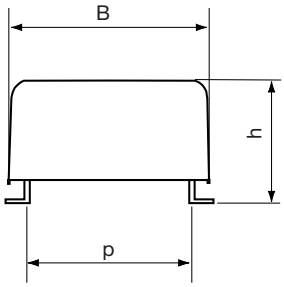
TYPICAL APPLICATIONS

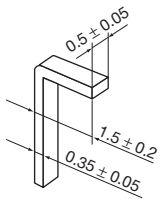
High frequency switched mode power supplies and DC-DC converters. Input/ output filtering.

CONSTRUCTION

DIL metallized polyester (PET) film capacitor for surface mounting. Encapsulation in self-extinguishing material meeting the requirements of UL 94V-0.







Detail of a lead

TECHNICAL DATA

Rated voltage U_R VDC	50	100	250	400	630
Rated voltage U_R VAC	30	63	160	200	220
Capacitance range, µF	0.033 - 15	0.033 - 10	0.033 - 1.5	0.033 - 0.47	0.033 - 0.18

Capacitance tolerance
± 10%, ± 5%, other tolerances on request

Category temperature range
–55 to +125°C

Rated temperature
+85 °C

Voltage derating
The rated voltage is decreased with 1.25%/°C from +85 °C

Climatic category
55/125/56

Test voltage
1.6 x U_R, 60s

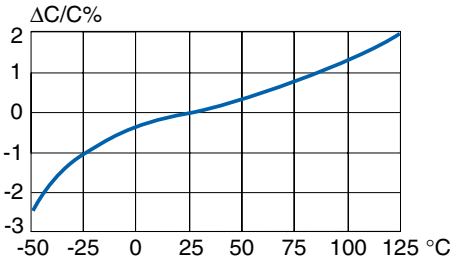
Insulation resistance
Minimum value between terminals
Measured at +20 °C according to IEC 60384-2

	C ≤ 0.33 µF	C > 0.33 µF
U_R ≤ 100 V	15 000 MΩ	5 000 s
U_R > 100 V	30 000 MΩ	10 000 s

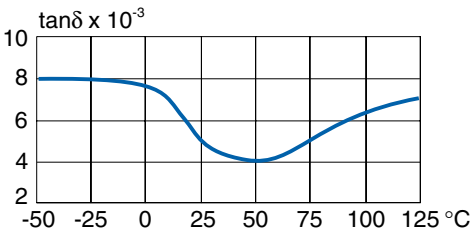
Dissipation factor
Maximum values at +23°C

	C ≤ 0.1 µF	0.1 < C ≤ 3.3 µF	C > 3.3 µF
1 kHz	0.8 %	0.8 %	0.8 %
10 kHz	1.5 %	1.5 %	1.5 %
100 kHz	2.5 %	5.0 %	—

Self inductancy
Approximately 4 nH



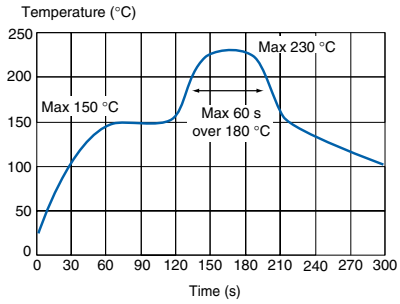
Capacitance vs temperature at 1 kHz



Dissipation factor vs temperature at 1 kHz

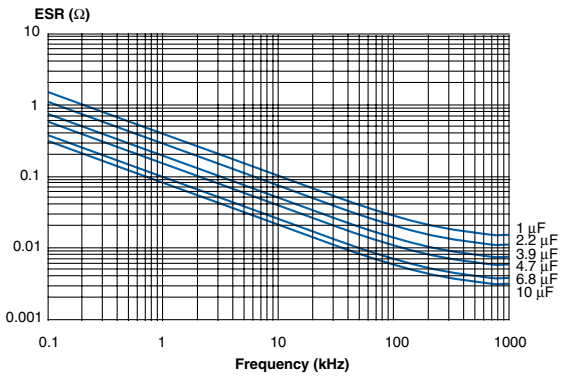
RECOMMENDED SOLDERING CONDITIONS

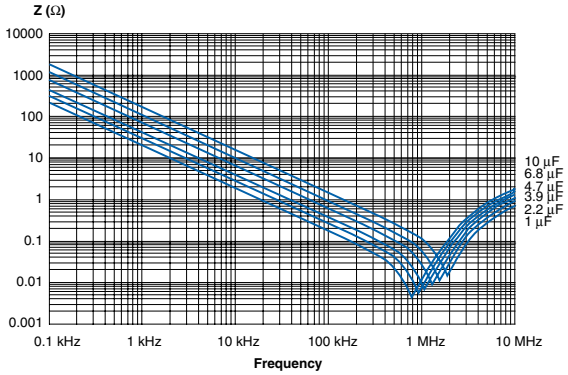
Electrode temperature, Reflow soldering
Preheating temperature should be less than 150°C. The time above 180°C should be less than 1 minute. The peak temperature must not exceed 230°C.



Recommended reflow soldering profile

TYPICAL DATA





ESR vs. frequency

Maximum RMS voltage U_{RMS} (V) vs. frequency

Value	Rated voltage	1 kHz	10 kHz	100 kHz	500 kHz	1 MHz
1.0 µF	250 V	150.0	36.0	9.2	2.9	1.3
2.2 µF	100 V	50.0	25.0	5.0	1.2	0.6
3.9 µF	100 V	50.0	18.0	4.0	1.0	0.3
4.7 µF	100 V	50.0	16.0	3.5	0.7	0.2
6.8 µF	100 V	50.0	15.5	2.2	0.5	0.2
10 µF	100 V	50.0	15.0	2.0	0.4	0.2

Impedance vs. frequency

Maximum RMS current I_{RMS} (A) vs. frequency

Value	Rated voltage	Case size	1 kHz	10 kHz	100 kHz	500 kHz	1 MHz
1.0 µF	250 V	A57	1.0	2.2	5.5	9.0	10.0
2.2 µF	100 V	A53	1.5	2.3	6.0	7.5	10.0
3.9 µF	100 V	A53	2.0	4.0	10.0	11.0	11.5
4.7 µF	100 V	A53	2.0	4.5	10.0	12.5	12.5
6.8 µF	100 V	A57	3.0	6.0	11.0	13.0	13.5
10 µF	100 V	A58	4.0	9.0	13.0	14.0	14.5

ORDERING INFORMATION

See article table and pages 18 to 23 for options and article code construction.

MARKING

- EVOX
- Rated capacitance according to IEC 60062
- Capacitance tolerance code
- Rated voltage
- Capacitor family code MDC

ARTICLE TABLE

Capacitance µF	Dimensions in mm B ±0.2	H ±0.2	L ±0.2	p	h1	Leads per side (Px and Py)	Quantity per package Reel	Tube	ESR 500kHz mΩ	Article code
50 VDC/30 VAC										
LEAD SPACING 10 MM										
0.033	12.2	6.05	11.0	10.0	7.75	3		43	390	MDC10 333K50A52P3 TUBE
0.039	12.2	6.05	11.0	10.0	7.75	3		43	330	MDC10 393K50A52P3 TUBE
0.047	12.2	6.05	11.0	10.0	7.75	3		43	270	MDC10 473K50A52P3 TUBE
0.056	12.2	6.05	11.0	10.0	7.75	3		43	230	MDC10 563K50A52P3 TUBE
0.068	12.2	6.05	11.0	10.0	7.75	3		43	190	MDC10 683K50A52P3 TUBE
0.082	12.2	6.05	11.0	10.0	7.75	3		43	160	MDC10 823K50A52P3 TUBE
0.10	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 104K50A52P3 TUBE
0.12	12.2	6.05	11.0	10.0	7.75	3		43	110	MDC10 124K50A52P3 TUBE
0.15	12.2	6.05	11.0	10.0	7.75	3		43	85	MDC10 154K50A52P3 TUBE
0.18	12.2	6.05	11.0	10.0	7.75	3		43	70	MDC10 184K50A52P3 TUBE
0.22	12.2	6.05	11.0	10.0	7.75	3		43	58	MDC10 224K50A52P3 TUBE
0.27	12.2	6.05	11.0	10.0	7.75	3		43	47	MDC10 274K50A52P3 TUBE
0.33	12.2	6.05	11.0	10.0	7.75	3		43	39	MDC10 334K50A52P3 TUBE
0.39	12.2	6.05	11.0	10.0	7.75	3		43	33	MDC10 394K50A52P3 TUBE
0.47	12.2	6.05	11.0	10.0	7.75	3		43	30	MDC10 474K50A52P3 TUBE
0.56	12.2	6.05	11.0	10.0	7.75	3		43	26	MDC10 564K50A52P3 TUBE
0.68	12.2	6.05	11.0	10.0	7.75	3		43	21	MDC10 684K50A52P3 TUBE
0.82	12.2	6.05	11.0	10.0	7.75	3		43	18	MDC10 824K50A52P3 TUBE
1.0	12.2	6.05	11.0	10.0	7.75	3		43	15	MDC10 105K50A52P3 TUBE
1.2	12.2	6.05	11.0	10.0	7.75	3		43	14	MDC10 125K50A52P3 TUBE
1.5	12.2	6.05	11.0	10.0	7.75	3		43	13	MDC10 155K50A52P3 TUBE
1.8	12.2	6.05	11.0	10.0	7.75	3		43	12	MDC10 185K50A52P3 TUBE
2.2	12.2	6.05	11.0	10.0	7.75	3		43	11	MDC10 225K50A52P3 TUBE
2.7	12.2	6.05	11.0	10.0	7.75	3		43	10	MDC10 275K50A52P3 TUBE
3.3	12.2	6.05	11.0	10.0	7.75	3		43	8	MDC10 335K50A52P3 TUBE
3.9	12.2	6.05	11.0	10.0	7.75	3		43	7	MDC10 395K50A52P3 TUBE
4.7	12.2	6.05	11.0	10.0	7.75	3		43	6	MDC10 475K50A52P3 TUBE
5.6	12.2	6.05	13.5	10.0	7.75	3, 4		35	5	MDC10 565K50A54PX TUBE
6.8	12.2	6.05	16.5	10.0	7.75	3, 4, 5		28	5	MDC10 685K50A55PZ TUBE
8.2	12.7	9.0	23.0	10.0	10.7	7, 8		21	4	MDC10 825K50A57PY TUBE
10	12.7	9.0	23.0	10.0	10.7	7, 8		21	3	MDC10 106K50A57PY TUBE
12	12.7	11.0	23.0	10.0	12.5	7, 8		21	3	MDC10 126K50A58PY TUBE
15	12.7	11.0	23.0	10.0	12.5	7, 8		21	3	MDC10 156K50A58PY TUBE
LEAD SPACING 15 MM										
0.033	16.5	6.05	11.0	15.0	7.75	3		43	390	MDC15 333K50B53P3 TUBE
0.039	16.5	6.05	11.0	15.0	7.75	3		43	330	MDC15 393K50B53P3 TUBE
0.047	16.5	6.05	11.0	15.0	7.75	3		43	270	MDC15 473K50B53P3 TUBE
0.056	16.5	6.05	11.0	15.0	7.75	3		43	230	MDC15 563K50B53P3 TUBE
0.068	16.5	6.05	11.0	15.0	7.75	3		43	190	MDC15 683K50B53P3 TUBE
0.082	16.5	6.05	11.0	15.0	7.75	3		43	160	MDC15 823K50B53P3 TUBE
0.10	16.5	6.05	11.0	15.0	7.75	3		43	130	MDC15 104K50B53P3 TUBE
0.12	16.5	6.05	11.0	15.0	7.75	3		43	110	MDC15 124K50B53P3 TUBE
0.15	16.5	6.05	11.0	15.0	7.75	3		43	85	MDC15 154K50B53P3 TUBE
0.18	16.5	6.05	11.0	15.0	7.75	3		43	70	MDC15 184K50B53P3 TUBE
0.22	16.5	6.05	11.0	15.0	7.75	3		43	58	MDC15 224K50B53P3 TUBE
0.27	16.5	6.05	11.0	15.0	7.75	3		43	47	MDC15 274K50B53P3 TUBE
0.33	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 334K50B53P3 TUBE
0.39	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 394K50B53P3 TUBE
0.47	16.5	6.05	11.0	15.0	7.75	3		43	30	MDC15 474K50B53P3 TUBE
0.56	16.5	6.05	11.0	15.0	7.75	3		43	26	MDC15 564K50B53P3 TUBE
0.68	16.5	6.05	11.0	15.0	7.75	3		43	21	MDC15 684K50B53P3 TUBE
0.82	16.5	6.05	11.0	15.0	7.75	3		43	18	MDC15 824K50B53P3 TUBE
1.0	16.5	6.05	11.0	15.0	7.75	3		43	15	MDC15 105K50B53P3 TUBE
1.2	16.5	6.05	11.0	15.0	7.75	3		43	15	MDC15 125K50B53P3 TUBE
1.5	16.5	6.05	11.0	15.0	7.75	3		43	13	MDC15 155K50B53P3 TUBE
1.8	16.5	6.05	11.0	15.0	7.75	3		43	13	MDC15 185K50B53P3 TUBE
2.2	16.5	6.05	11.0	15.0	7.75	3		43	11	MDC15 225K50B53P3 TUBE
2.7	16.5	6.05	11.0	15.0	7.75	3		43	11	MDC15 275K50B53P3 TUBE
3.3	16.5	6.05	11.0	15.0	7.75	3		43	8	MDC15 335K50B53P3 TUBE

ARTICLE TABLE

Capacitance µF	Dimensions in mm B ±0.2	H ±0.2	L ±0.2	p	h1	Leads per side (Px and Py)	Quantity per package Reel	Tube	ESR 500kHz mΩ	Article code
50 VDC/30 VAC										
LEAD SPACING 15 MM										
3.9	16.5	6.05	11.0	15.0	7.75	3		43	8	MDC15 395K50B53P3 TUBE
4.7	16.5	6.05	11.0	15.0	7.75	3		43	6	MDC15 475K50B53P3 TUBE
5.6	16.5	6.05	11.0	15.0	7.75	3		43	5	MDC15 565K50B53P3 TUBE
6.8	16.5	6.05	11.0	15.0	7.75	3		43	5	MDC15 685K50B53P3 TUBE
100 VDC/63 VAC										
LEAD SPACING 10 MM										
0.033	12.2	6.05	11.0	10.0	7.75	3		43	390	MDC10 333K100A52P3 TUBE
0.039	12.2	6.05	11.0	10.0	7.75	3		43	330	MDC10 393K100A52P3 TUBE
0.047	12.2	6.05	11.0	10.0	7.75	3		43	270	MDC10 473K100A52P3 TUBE
0.056	12.2	6.05	11.0	10.0	7.75	3		43	230	MDC10 563K100A52P3 TUBE
0.068	12.2	6.05	11.0	10.0	7.75	3		43	190	MDC10 683K100A52P3 TUBE
0.082	12.2	6.05	11.0	10.0	7.75	3		43	160	MDC10 823K100A52P3 TUBE
0.10	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 104K100A52P3 TUBE
0.12	12.2	6.05	11.0	10.0	7.75	3		43	110	MDC10 124K100A52P3 TUBE
0.15	12.2	6.05	11.0	10.0	7.75	3		43	85	MDC10 154K100A52P3 TUBE
0.18	12.2	6.05	11.0	10.0	7.75	3		43	70	MDC10 184K100A52P3 TUBE
0.22	12.2	6.05	11.0	10.0	7.75	3		43	58	MDC10 224K100A52P3 TUBE
0.27	12.2	6.05	11.0	10.0	7.75	3		43	47	MDC10 274K100A52P3 TUBE
0.33	12.2	6.05	11.0	10.0	7.75	3		43	39	MDC10 334K100A52P3 TUBE
0.39	12.2	6.05	11.0	10.0	7.75	3		43	33	MDC10 394K100A52P3 TUBE
0.47	12.2	6.05	11.0	10.0	7.75	3		43	30	MDC10 474K100A52P3 TUBE
0.56	12.2	6.05	11.0	10.0	7.75	3		43	26	MDC10 564K100A52P3 TUBE
0.68	12.2	6.05	11.0	10.0	7.75	3		43	21	MDC10 684K100A52P3 TUBE
0.82	12.2	6.05	11.0	10.0	7.75	3		43	18	MDC10 824K100A52P3 TUBE
1.0	12.2	6.05	11.0	10.0	7.75	3		43	15	MDC10 105K100A52P3 TUBE
1.2	12.2	6.05	11.0	10.0	7.75	3		43	14	MDC10 125K100A52P3 TUBE
1.5	12.2	6.05	11.0	10.0	7.75	3		43	13	MDC10 155K100A52P3 TUBE
1.8	12.2	6.05	11.0	10.0	7.75	3		43	12	MDC10 185K100A52P3 TUBE
2.2	12.2	6.05	11.0	10.0	7.75	3		43	11	MDC10 225K100A52P3 TUBE
2.7	12.2	6.05	11.0	10.0	7.75	3		43	10	MDC10 275K100A52P3 TUBE *
3.3	12.2	6.05	11.0	10.0	7.75	3		43	8	MDC10 335K100A52P3 TUBE *
3.9	12.2	6.05	11.0	10.0	7.75	3		43	7	MDC10 395K100A52P3 TUBE *
4.7	12.2	6.05	13.5	10.0	7.75	3, 4		35	6	MDC10 475K100A54Px TUBE *
5.6	12.2	6.05	16.5	10.0	7.75	3, 4, 5		28	5	MDC10 565K100A55Pz TUBE *
6.8	12.7	9.0	23.0	10.0	10.7	7, 8		21	5	MDC10 685K100A57Py TUBE
8.2	12.7	11.0	23.0	10.0	12.5	7, 8		21	4	MDC10 825K100A58Py TUBE
10	12.7	11.0	23.0	10.0	12.5	7, 8		21	3	MDC10 106K100A58Py TUBE
LEAD SPACING 15 MM										
0.033	16.5	6.05	11.0	15.0	7.75	3		43	390	MDC15 333K100B53P3 TUBE
0.039	16.5	6.05	11.0	15.0	7.75	3		43	330	MDC15 393K100B53P3 TUBE
0.047	16.5	6.05	11.0	15.0	7.75	3		43	270	MDC15 473K100B53P3 TUBE
0.056	16.5	6.05	11.0	15.0	7.75	3		43	230	MDC15 563K100B53P3 TUBE
0.068	16.5	6.05	11.0	15.0	7.75	3		43	190	MDC15 683K100B53P3 TUBE
0.082	16.5	6.05	11.0	15.0	7.75	3		43	160	MDC15 823K100B53P3 TUBE
0.10	16.5	6.05	11.0	15.0	7.75	3		43	130	MDC15 104K100B53P3 TUBE
0.12	16.5	6.05	11.0	15.0	7.75	3		43	110	MDC15 124K100B53P3 TUBE
0.15	16.5	6.05	11.0	15.0	7.75	3		43	85	MDC15 154K100B53P3 TUBE
0.18	16.5	6.05	11.0	15.0	7.75	3		43	70	MDC15 184K100B53P3 TUBE
0.22	16.5	6.05	11.0	15.0	7.75	3		43	58	MDC15 224K100B53P3 TUBE
0.27	16.5	6.05	11.0	15.0	7.75	3		43	47	MDC15 274K100B53P3 TUBE
0.33	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 334K100B53P3 TUBE
0.39	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 394K100B53P3 TUBE
0.47	16.5	6.05	11.0	15.0	7.75	3		43	30	MDC15 474K100B53P3 TUBE
0.56	16.5	6.05	11.0	15.0	7.75	3		43	26	MDC15 564K100B53P3 TUBE
0.68	16.5	6.05	11.0	15.0	7.75	3		43	21	MDC15 684K100B53P3 TUBE

* 100 VDC/35 VAC

ARTICLE TABLE

Capacitance µF	Dimensions in mm B ±0.2	H ±0.2	L ±0.2	p	h1	Leads per side (Px and Py)	Quantity per package Reel	Tube	ESR 500kHz mΩ	Article code
100 VDC/63 VAC										
LEAD SPACING 15 MM										
0.82	16.5	6.05	11.0	15.0	7.75	3		43	18	MDC15 824K100B53P3 TUBE
1.0	16.5	6.05	11.0	15.0	7.75	3		43	15	MDC15 105K100B53P3 TUBE
1.2	16.5	6.05	11.0	15.0	7.75	3		43	15	MDC15 125K100B53P3 TUBE
1.5	16.5	6.05	11.0	15.0	7.75	3		43	13	MDC15 155K100B53P3 TUBE
1.8	16.5	6.05	11.0	15.0	7.75	3		43	13	MDC15 185K100B53P3 TUBE
2.2	16.5	6.05	11.0	15.0	7.75	3		43	11	MDC15 225K100B53P3 TUBE
2.7	16.5	6.05	11.0	15.0	7.75	3		43	11	MDC15 275K100B53P3 TUBE
3.3	16.5	6.05	11.0	15.0	7.75	3		43	8	MDC15 335K100B53P3 TUBE
3.9	16.5	6.05	11.0	15.0	7.75	3		43	8	MDC15 395K100B53P3 TUBE
4.7	16.5	6.05	11.0	15.0	7.75	3		43	6	MDC15 475K100B53P3 TUBE *
5.6	16.5	6.05	12.2	15.0	7.75	3, 4		39	5	MDC15 565K100B55Px TUBE
250 VDC/160 VAC										
LEAD SPACING 10 MM										
0.033	12.2	6.05	11.0	10.0	7.75	3		43	390	MDC10 333K250A52P3 TUBE
0.039	12.2	6.05	11.0	10.0	7.75	3		43	330	MDC10 393K250A52P3 TUBE
0.047	12.2	6.05	11.0	10.0	7.75	3		43	270	MDC10 473K250A52P3 TUBE
0.056	12.2	6.05	11.0	10.0	7.75	3		43	230	MDC10 563K250A52P3 TUBE
0.068	12.2	6.05	11.0	10.0	7.75	3		43	190	MDC10 683K250A52P3 TUBE
0.082	12.2	6.05	11.0	10.0	7.75	3		43	160	MDC10 823K250A52P3 TUBE
0.10	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 104K250A52P3 TUBE
0.12	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 124K250A52P3 TUBE
0.15	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 154K250A52P3 TUBE
0.18	12.2	6.05	11.0	10.0	7.75	3		43	70	MDC10 184K250A52P3 TUBE
0.22	12.2	6.05	11.0	10.0	7.75	3		43	58	MDC10 224K250A52P3 TUBE
0.27	12.2	6.05	11.0	10.0	7.75	3		43	47	MDC10 274K250A52P3 TUBE
0.33	12.2	6.05	11.0	10.0	7.75	3		43	39	MDC10 334K250A52P3 TUBE
0.39	12.2	6.05	11.0	10.0	7.75	3		43	33	MDC10 394K250A52P3 TUBE
0.47	12.2	6.05	11.0	10.0	7.75	3		43	30	MDC10 474K250A52P3 TUBE
0.56	12.2	6.05	13.5	10.0	7.75	3, 4		35	26	MDC10 564K250A54Px TUBE
0.68	12.2	6.05	16.5	10.0	7.75	3, 4, 5		28	21	MDC10 684K250A55Pz TUBE
0.82	12.7	9.0	23.0	10.0	10.7	7, 8		21	18	MDC10 824K250A57Py TUBE
1.0	12.7	9.0	23.0	10.0	10.7	7, 8		21	15	MDC10 105K250A57Py TUBE
1.2	12.7	11.0	23.0	10.0	12.5	7, 8		21	14	MDC10 125K250A58Py TUBE
1.5	12.7	11.0	23.0	10.0	12.5	7, 8		21	13	MDC10 155K250A58Py TUBE
LEAD SPACING 15 MM										
0.033	16.5	6.05	11.0	15.0	7.75	3		43	390	MDC15 333K250B53P3 TUBE
0.039	16.5	6.05	11.0	15.0	7.75	3		43	330	MDC15 393K250B53P3 TUBE
0.047	16.5	6.05	11.0	15.0	7.75	3		43	270	MDC15 473K250B53P3 TUBE
0.056	16.5	6.05	11.0	15.0	7.75	3		43	230	MDC15 563K250B53P3 TUBE
0.068	16.5	6.05	11.0	15.0	7.75	3		43	190	MDC15 683K250B53P3 TUBE
0.082	16.5	6.05	11.0	15.0	7.75	3		43	160	MDC15 823K250B53P3 TUBE
0.10	16.5	6.05	11.0	15.0	7.75	3		43	130	MDC15 104K250B53P3 TUBE
0.12	16.5	6.05	11.0	15.0	7.75	3		43	110	MDC15 124K250B53P3 TUBE
0.15	16.5	6.05	11.0	15.0	7.75	3		43	85	MDC15 154K250B53P3 TUBE
0.18	16.5	6.05	11.0	15.0	7.75	3		43	70	MDC15 184K250B53P3 TUBE
0.22	16.5	6.05	11.0	15.0	7.75	3		43	58	MDC15 224K250B53P3 TUBE
0.27	16.5	6.05	11.0	15.0	7.75	3		43	47	MDC15 274K250B53P3 TUBE
0.33	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 334K250B53P3 TUBE
0.39	16.5	6.05	11.0	15.0	7.75	3		43	39	MDC15 394K250B53P3 TUBE
0.47	16.5	6.05	11.0	15.0	7.75	3		43	30	MDC15 474K250B53P3 TUBE
0.56	16.5	6.05	11.0	15.0	7.75	3		43	26	MDC15 564K250B53P3 TUBE
0.68	16.5	6.05	11.0	15.0	7.75	3		43	21	MDC15 684K250B53P3 TUBE

* 100 VDC/35 VAC

ARTICLE TABLE

Capacitance µF	Dimensions in mm B ±0.2	H ±0.2	L ±0.2	p	h1	Leads per side (Px and Py)	Quantity per package Reel	Tube	ESR 500kHz mΩ	Article code
400 VDC/200 VAC										
LEAD SPACING 10 MM										
0.033	12.2	6.05	11.0	10.0	7.75	3		43	390	MDC10 333K400A52P3 TUBE
0.039	12.2	6.05	11.0	10.0	7.75	3		43	330	MDC10 393K400A52P3 TUBE
0.047	12.2	6.05	11.0	10.0	7.75	3		43	270	MDC10 473K400A52P3 TUBE
0.056	12.2	6.05	11.0	10.0	7.75	3		43	230	MDC10 563K400A52P3 TUBE
0.068	12.2	6.05	11.0	10.0	7.75	3		43	190	MDC10 683K400A52P3 TUBE
0.082	12.2	6.05	11.0	10.0	7.75	3		43	160	MDC10 823K400A52P3 TUBE
0.10	12.2	6.05	11.0	10.0	7.75	3		43	130	MDC10 104K400A52P3 TUBE
0.12	12.2	6.05	11.0	10.0	7.75	3		43	110	MDC10 124K400A52P3 TUBE
0.15	12.2	6.05	11.0	10.0	7.75	3		43	85	MDC10 154K400A52P3 TUBE
0.18	12.2	6.05	11.0	10.0	7.75	3		43	70	MDC10 184K400A52P3 TUBE
0.22	12.7	9.0	23.0	10.0	10.7	7, 8		21	58	MDC10 224K400A57Py TUBE
0.27	12.7	9.0	23.0	10.0	10.7	7, 8		21	47	MDC10 274K400A57Py TUBE
0.33	12.7	9.0	23.0	10.0	10.7	7, 8		21	39	MDC10 334K400A57Py TUBE
0.39	12.7	11.0	23.0	10.0	12.5	7, 8		21	33	MDC10 394K400A58Py TUBE
0.47	12.7	11.0	23.0	10.0	12.5	7, 8		21	30	MDC10 474K400A58Py TUBE
LEAD SPACING 15 MM										
0.033	16.5	6.05	11.0	15.0	7.75	3		43	390	MDC15 333K400B53P3 TUBE
0.039	16.5	6.05	11.0	15.0	7.75	3		43	330	MDC15 393K400B53P3 TUBE
0.047	16.5	6.05	11.0	15.0	7.75	3		43	270	MDC15 473K400B53P3 TUBE
0.056	16.5	6.05	11.0	15.0	7.75	3		43	230	MDC15 563K400B53P3 TUBE
0.068	16.5	6.05	11.0	15.0	7.75	3		43	190	MDC15 683K400B53P3 TUBE
0.082	16.5	6.05	11.0	15.0	7.75	3		43	160	MDC15 823K400B53P3 TUBE
0.10	16.5	6.05	11.0	15.0	7.75	3		43	130	MDC15 104K400B53P3 TUBE
0.12	16.5	6.05	11.0	15.0	7.75	3		43	110	MDC15 124K400B53P3 TUBE
0.15	16.5	6.05	11.0	15.0	7.75	3		43	85	MDC15 154K400B53P3 TUBE
0.18	16.5	6.05	11.0	15.0	7.75	3		43	70	MDC15 184K400B53P3 TUBE
0.22	16.5	6.05	11.0	15.0	7.75	3		43	58	MDC15 224K400B53P3 TUBE
0.27	16.5	6.05	11.0	15.0	7.75	3		43	47	MDC15 274K400B53P3 TUBE
0.33	16.5	6.05	12.2	15.0	7.75	3, 4		39	39	MDC15 334K400B55Px TUBE
630 VDC/220 VAC										
LEAD SPACING 10 MM										
0.033	12.2	6.05	11.0	10.0	7.75	3		43	390	MDC10 333K630A52P3 TUBE
0.039	12.2	6.05	11.0	10.0	7.75	3		43	330	MDC10 393K630A52P3 TUBE
0.047	12.2	6.05	11.0	10.0	7.75	3		43	270	MDC10 473K630A52P3 TUBE
0.056	12.2	6.05	11.0	10.0	7.75	3		43	230	MDC10 563K630A52P3 TUBE
0.068	12.2	6.05	13.5	10.0	7.75	3, 4		35	190	MDC10 683K630A54Px TUBE
0.082	12.7	11.0	23.0	10.0	12.5	7, 8		21	160	MDC10 823K630A58Py TUBE
0.10	12.7	11.0	23.0	10.0	12.5	7, 8		21	130	MDC10 104K630A58Py TUBE
0.12	12.7	11.0	23.0	10.0	12.5	7, 8		21	110	MDC10 124K630A58Py TUBE
0.15	12.7	11.0	23.0	10.0	12.5	7, 8		21	85	MDC10 154K630A58Py TUBE
0.18	12.7	11.0	23.0	10.0	12.5	7, 8		21	70	MDC10 184K630A58Py TUBE
LEAD SPACING 15 MM										
0.033	16.5	6.05	11.0	15.0	7.75	3		43	390	MDC15 333K630B53P3 TUBE
0.039	16.5	6.05	11.0	15.0	7.75	3		43	330	MDC15 393K630B53P3 TUBE
0.047	16.5	6.05	11.0	15.0	7.75	3		43	270	MDC15 473K630B53P3 TUBE
0.056	16.5	6.05	11.0	15.0	7.75	3		43	230	MDC15 563K630B53P3 TUBE
0.068	16.5	6.05	11.0	15.0	7.75	3		43	190	MDC15 683K630B53P3 TUBE
0.082	16.5	6.05	11.0	15.0	7.75	3		43	160	MDC15 823K630B53P3 TUBE
0.10	16.5	6.05	11.0	15.0	7.75	3		43	130	MDC15 104K630B53P3 TUBE

x = Number of leads per side, 3 or 4
z = Number of leads per side, 3, 4 or 5
y = Number of leads per side, 7 or 8