

CAPACITORS FOR HIGH FREQUENCY SWITCH MODE POWER SUPPLIES



PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Dielectric: Metalized Polyester (P.E.T.). Self healing, low inductance.

CASE:

Thermoplastic case. Epoxy resin molded.

LEAD MATERIAL:

DPM 90 R1 & R2 - Surface mount device.

MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

ELECTRICAL SPECIFICATIONS

OPERATING TEMPERATURE RANGE:

-55°C to +125°C

DISSIPATION FACTOR:

Maximum 1% @ 1kHz

INSULATION RESISTANCE:

$\geq 3,750 \text{ M}\Omega$ for $C_r \leq 0.33$ and $\leq 100 \text{ VDC}$

$\geq 7,500 \text{ M}\Omega$ for $C_r \leq 0.33$ and $> 100 \text{ VDC}$

$\geq 1,250 \text{ M}\Omega \cdot \mu\text{F}$ for $C_r > 0.33$ and $\leq 100 \text{ VDC}$

$\geq 2,500 \text{ M}\Omega \cdot \mu\text{F}$ for $C_r > 0.33$ and $> 100 \text{ VDC}$

DIELECTRIC WITHSTANDING VOLTAGE (DWW):

1.6 x rated voltage

INSULATION BETWEEN LEADS & CASE:

50,000 $\text{M}\Omega$

PERMISSIBLE CURRENT:

@ 300kHz up to 105°C = I_{rms}

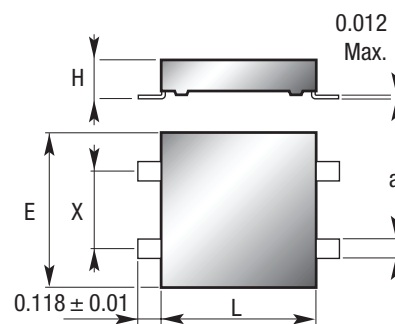
@ 300kHz at 125°C = $0.1 I_{\text{rms}}$

AVAILABLE CAPACITANCE TOLERANCES:

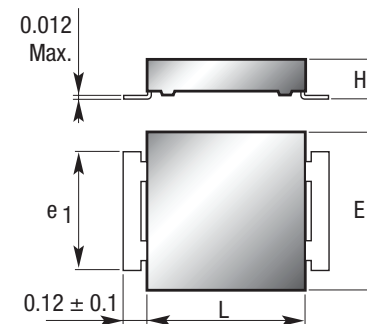
$\pm 20\%$ & $\pm 10\%$

DIMENSIONS (in inches)

DPM 90 R1



DPM 90 R2



CAPACITORS FOR HIGH FREQUENCY SWITCH MODE POWER SUPPLIES

TYPE DPM 90 R1/R2

STANDARD RATINGS

Capacitance		Dimensions (in inches)						TYPE DPM 90 M R1 / R2	TYPE DPM 90 R1 / R2					
µF	Code	Max. "L"	Max. "E"	Max. "H"	"e1" ± 0.02	"X" ± 0.02	"a" +10% -0.05	50 V (l. rms)	50 V (l. rms)	100 V (l. rms)	200 V (l. rms)	250 V (l. rms)	400 V (l. rms)	630 V (l. rms)
0.22	224	0.807	0.807	0.295	0.591	0.394	0.1	-	0.9	0.9	0.9	0.9	0.9	0.9
0.27	274	0.807	0.807	0.295	0.591	0.394	0.1	-	1.1	1.1	1.1	1.1	1.1	1.1
0.39	394	0.807	0.807	0.295	0.591	0.394	0.1	-	1.25	1.25	1.25	1.25	1.25	-
0.47	474	0.807	0.807	0.295	0.591	0.394	0.1	-	1.6	1.6	1.6	1.6	1.6	-
0.56	564	0.807	0.807	0.295	0.591	0.394	0.1	-	2	2	2	2	2	-
0.68	684	0.807	0.807	0.295	0.591	0.394	0.1	-	2.5	2.5	2.5	2.5	2.5	-
0.82	824	0.807	0.807	0.295	0.591	0.394	0.1	-	3.15	3.15	3.15	3.15	3.15	-
1	105	0.807	0.807	0.295	0.591	0.394	0.1	-	1.25	1.25	1.25	1.25	-	-
1.2	125	0.807	0.807	0.295	0.591	0.394	0.1	-	1.6	1.6	1.6	1.6	-	-
1.5	155	0.807	0.807	0.295	0.591	0.394	0.1	-	1.5	1.5	1.5	2	-	-
1.8	185	0.807	0.807	0.295	0.591	0.394	0.1	-	2.5	2.5	2.5	2.5	-	-
2.2	225	0.807	0.807	0.295	0.591	0.394	0.1	-	2.2	2.2	2.2	3.15	-	-
2.7	275	0.807	0.807	0.295	0.591	0.394	0.1	-	4	4	4	4	-	-
3.3	335	0.807	0.807	0.295	0.591	0.394	0.1	-	2	2	2.6	-	-	-
3.9	395	0.807	0.807	0.295	0.591	0.394	0.1	-	2.5	2.5	-	-	-	-
4.7	475	0.807	0.807	0.295	0.591	0.394	0.1	-	3.15	3.15	-	-	-	-
5.6	565	0.807	0.807	0.295	0.591	0.394	0.1	-	4	4	-	-	-	-
6.8	685	0.807	0.807	0.295	0.591	0.394	0.1	-	5	5	-	-	-	-
8.2	825	0.807	0.807	0.295	0.591	0.394	0.1	-	4	-	-	-	-	-
10	106	0.807	0.807	0.295	0.591	0.394	0.1	-	5	-	-	-	-	-
12	126	0.807	0.807	0.295	0.591	0.394	0.1	-	6.3	-	-	-	-	-
15	156	0.807	0.807	0.295	0.591	0.394	0.1	5.2	-	-	-	-	-	-
0.33	334	0.807	0.807	0.355	0.591	0.394	0.1	-	1.4	1.4	1.4	1.4	1.4	1.4
0.39	394	0.807	0.807	0.355	0.591	0.394	0.1	-	1.6	1.6	1.6	1.6	1.6	1.6
1	105	0.807	0.807	0.355	0.591	0.394	0.1	-	4	4	4	4	4	-
1.2	125	0.807	0.807	0.355	0.591	0.394	0.1	-	4	4	4	4	4	-
3.3	335	0.807	0.807	0.355	0.591	0.394	0.1	-	5	5	5	5	-	-
3.9	395	0.807	0.807	0.355	0.591	0.394	0.1	-	3.1	3.1	3.1	5	-	-
4.7	475	0.807	0.807	0.355	0.591	0.394	0.1	-	3.7	3.7	3.7	-	-	-
8.2	825	0.807	0.807	0.355	0.591	0.394	0.1	-	6.5	6.5	-	-	-	-
15	156	0.807	0.807	0.355	0.591	0.394	0.1	-	8	-	-	-	-	-
18	186	0.807	0.807	0.355	0.591	0.394	0.1	6.2	-	-	-	-	-	-
22	226	0.807	0.807	0.355	0.591	0.394	0.1	7.6	-	-	-	-	-	-
0.47	474	0.807	0.807	0.532	0.591	0.394	0.1	-	1.9	1.9	1.9	1.9	1.9	1.9
0.68	684	0.807	0.807	0.532	0.591	0.394	0.1	-	2.8	2.8	2.8	2.8	2.8	2.8
1.5	155	0.807	0.807	0.532	0.591	0.394	0.1	-	5	5	5	5	5	-
1.8	185	0.807	0.807	0.532	0.591	0.394	0.1	-	5	5	5	5	5	-
4.7	475	0.807	0.807	0.532	0.591	0.394	0.1	-	6.3	6.3	6.3	6.3	-	-
5.6	565	0.807	0.807	0.532	0.591	0.394	0.1	-	4.4	4.4	4.4	6.3	-	-
6.8	685	0.807	0.807	0.532	0.591	0.394	0.1	-	5.4	5.4	5.4	-	-	-
10	106	0.807	0.807	0.532	0.591	0.394	0.1	-	8	8	-	-	-	-
12	126	0.807	0.807	0.532	0.591	0.394	0.1	-	8	8	-	-	-	-
18	186	0.807	0.807	0.532	0.591	0.394	0.1	-	10	-	-	-	-	-
22	226	0.807	0.807	0.532	0.591	0.394	0.1	-	10	-	-	-	-	-
27	276	0.807	0.807	0.532	0.591	0.394	0.1	9.4	-	-	-	-	-	-
33	336	0.807	0.807	0.532	0.591	0.394	0.1	11.5	-	-	-	-	-	-

RMS current rated at 300kHz up to 105°C.

CAPACITORS FOR HIGH FREQUENCY SWITCH MODE POWER SUPPLIES

STANDARD RATINGS

Capacitance		Dimensions (in inches)						TYPE DPM 90 M R1 / R2	TYPE DPM 90 R1 / R2					
μF	Code	Max. "L"	Max. "E"	Max. "H"	"e1" ± 0.02	"X" ± 0.02	"a" $+10\% -0.05$	50 V (l. rms)	50 V (l. rms)	100 V (l. rms)	200 V (l. rms)	250 V (l. rms)	400 V (l. rms)	630 V (l. rms)
0.82	824	0.807	0.807	0.827	0.591	0.394	0.1	-	3.4	3.4	3.4	3.4	3.4	3.4
1	105	0.807	0.807	0.827	0.591	0.394	0.1	-	4.1	4.1	4.1	4.1	4.1	4.1
2.2	225	0.807	0.807	0.827	0.591	0.394	0.1	-	6.3	6.3	6.3	6.3	6.3	-
2.7	275	0.807	0.807	0.827	0.591	0.394	0.1	-	6.3	6.3	6.3	6.3	6.3	-
3.3	335	0.807	0.807	0.827	0.591	0.394	0.1	-	6.3	6.3	6.3	6.3	6.3	-
6.8	685	0.807	0.807	0.827	0.591	0.394	0.1	-	8	8	8	8	-	-
8.2	825	0.807	0.807	0.827	0.591	0.394	0.1	-	6.5	6.5	6.5	8	-	-
10	106	0.807	0.807	0.827	0.591	0.394	0.1	-	7.9	7.9	7.9	8	-	-
12	126	0.807	0.807	0.827	0.591	0.394	0.1	-	9.5	9.5	9.5	-	-	-
15	156	0.807	0.807	0.827	0.591	0.394	0.1	-	10	10	-	-	-	-
18	186	0.807	0.807	0.827	0.591	0.394	0.1	-	10	10	-	-	-	-
22	226	0.807	0.807	0.827	0.591	0.394	0.1	-	10	10	-	-	-	-
27	276	0.807	0.807	0.827	0.591	0.394	0.1	-	12.5	-	-	-	-	-
33	336	0.807	0.807	0.827	0.591	0.394	0.1	-	12.5	-	-	-	-	-
39	396	0.807	0.807	0.827	0.591	0.394	0.1	-	12.5	-	-	-	-	-
47	476	0.807	0.807	0.827	0.591	0.394	0.1	12.5	-	-	-	-	-	-
56	566	0.807	0.807	0.827	0.591	0.394	0.1	12.5	-	-	-	-	-	-
68	686	0.807	0.807	0.827	0.591	0.394	0.1	12.5	-	-	-	-	-	-
1.2	125	0.807	0.807	1.221	0.591	0.394	0.1	-	5	5	5	5	5	5
1.5	155	0.807	0.807	1.221	0.591	0.394	0.1	-	6.2	6.2	6.2	6.2	6.2	6.2
1.8	185	0.807	0.807	1.221	0.591	0.394	0.1	-	7.4	7.4	7.4	7.4	7.4	7.4
3.9	395	0.807	0.807	1.221	0.591	0.394	0.1	-	8	8	8	8	8	-
4.7	475	0.807	0.807	1.221	0.591	0.394	0.1	-	8	8	8	8	8	-
12	126	0.807	0.807	1.221	0.591	0.394	0.1	-	10	10	10	10	-	-
15	156	0.807	0.807	1.221	0.591	0.394	0.1	-	11.9	11.9	11.9	10	-	-
18	186	0.807	0.807	1.221	0.591	0.394	0.1	-	12.5	12.5	12.5	-	-	-
27	276	0.807	0.807	1.221	0.591	0.394	0.1	-	12.5	12.5	-	-	-	-
33	336	0.807	0.807	1.221	0.591	0.394	0.1	-	12.5	12.5	-	-	-	-
47	476	0.807	0.807	1.221	0.591	0.394	0.1	-	12.5	-	-	-	-	-
56	566	0.807	0.807	1.221	0.591	0.394	0.1	-	12.5	-	-	-	-	-
82	826	0.807	0.807	1.221	0.591	0.394	0.1	12.5	-	-	-	-	-	-
100	107	0.807	0.807	1.221	0.591	0.394	0.1	12.5	-	-	-	-	-	-
2.2	225	1.24	1.28	0.906	0.945	0.591	0.158	-	5.2	5.2	5.2	5.2	5.2	5.2
2.7	275	1.24	1.28	0.906	0.945	0.591	0.158	-	6.4	6.4	6.4	6.4	6.4	6.4
3.3	335	1.24	1.28	0.906	0.945	0.591	0.158	-	7.8	7.8	7.8	7.8	7.8	7.8
3.9	395	1.24	1.28	0.906	0.945	0.591	0.158	-	9.2	9.2	9.2	9.2	9.2	9.2
5.6	565	1.24	1.28	0.906	0.945	0.591	0.158	-	7.9	7.9	7.9	7.9	7.9	-
6.8	685	1.24	1.28	0.906	0.945	0.591	0.158	-	9.6	9.6	9.6	9.6	9.6	-
8.2	825	1.24	1.28	0.906	0.945	0.591	0.158	-	11.5	11.5	11.5	11.5	11.5	-
10	106	1.24	1.28	0.906	0.945	0.591	0.158	-	14	14	14	14	14	-
18	186	1.24	1.28	0.906	0.945	0.591	0.158	-	15	15	15	15	-	-
22	226	1.24	1.28	0.906	0.945	0.591	0.158	-	9.9	9.9	9.9	15	-	-
27	276	1.24	1.28	0.906	0.945	0.591	0.158	-	15	15	15	15	-	-
33	336	1.24	1.28	0.906	0.945	0.591	0.158	-	14.9	14.9	14.9	-	-	-
39	396	1.24	1.28	0.906	0.945	0.591	0.158	-	15	15	-	-	-	-
47	476	1.24	1.28	0.906	0.945	0.591	0.158	-	15	15	-	-	-	-
56	566	1.24	1.28	0.906	0.945	0.591	0.158	-	15	15	-	-	-	-
68	686	1.24	1.28	0.906	0.945	0.591	0.158	-	15	-	-	-	-	-
82	826	1.24	1.28	0.906	0.945	0.591	0.158	-	15	-	-	-	-	-
100	107	1.24	1.28	0.906	0.945	0.591	0.158	-	15	-	-	-	-	-

RMS current rated at 300kHz up to 105°C.

CAPACITORS FOR HIGH FREQUENCY SWITCH MODE POWER SUPPLIES

TYPE DPM 90 R1/R2

STANDARD RATINGS

Capacitance		Dimensions (in inches)						TYPE DPM 90 M R1 / R2	TYPE DPM 90 R1 / R2					
μF	Code	Max. "L"	Max. "E"	Max. "H"	"e1" ± 0.02	"X" ± 0.02	"a" +10% -0.05	50 V (l. rms)	50 V (l. rms)	100 V (l. rms)	200 V (l. rms)	250 V (l. rms)	400 V (l. rms)	630 V (l. rms)
4.7	475	1.24	1.28	1.3	0.945	0.591	0.158	-	11	11	11	11	11	11
5.6	565	1.24	1.28	1.3	0.945	0.591	0.158	-	12.5	12.5	12.5	12.5	12.5	12.5
12	126	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	15	15	-
15	156	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	15	15	-
33	336	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	15	-	-
39	396	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	15	-	-
47	476	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	-	-	-
56	566	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	15	-	-	-
68	686	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	-	-	-	-
82	826	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	-	-	-	-
100	107	1.24	1.28	1.3	0.945	0.591	0.158	-	15	15	-	-	-	-
120	127	1.24	1.28	1.3	0.945	0.591	0.158	-	15	-	-	-	-	-
150	157	1.24	1.28	1.3	0.945	0.591	0.158	-	15	-	-	-	-	-

RMS current rated at 300kHz up to 105°C.