

TYPE : DPT

類別 : DPT

Metallized Polypropylene Film Capacitor

金屬化聚丙烯薄膜電容器

介紹 DESCRIPTION

DPT series round, axial film capacitors use polypropylene film and dual metallized electrodes for both self-healing properties and high peak current carrying capability (dV/dt).

This series features low ESR characteristics, excellent high frequency and high voltage capabilities.

DPT 系列圓形、軸向薄膜電容器採用聚丙烯薄膜，且具有自愈特性和高峯值載流能力 (**dV/dt**)。該系列具有低 **ESR** 特性、出色的高頻和高壓能力。

用途 APPLICATION

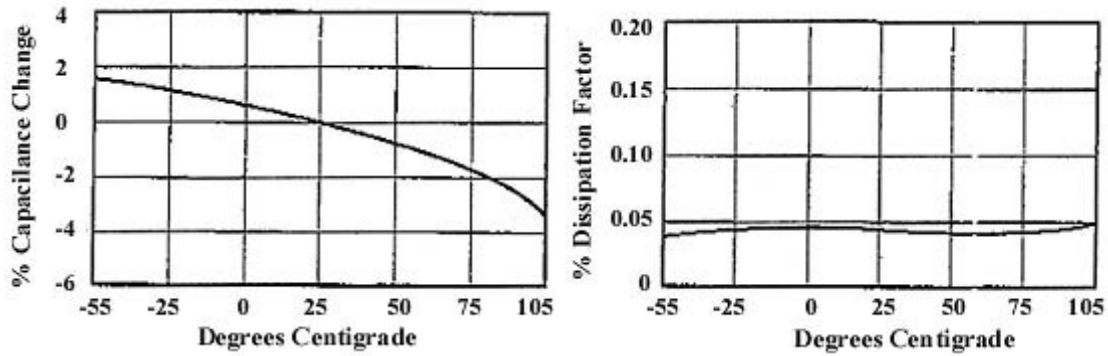
- Suitable for high current, high frequency, and high pulse applications.
- IGBT Snubber
- High dV/dt
- 適用於大電流、高頻和高脈衝應用。
- **IGBT** 緩衝器
- 高 **dV/dt**



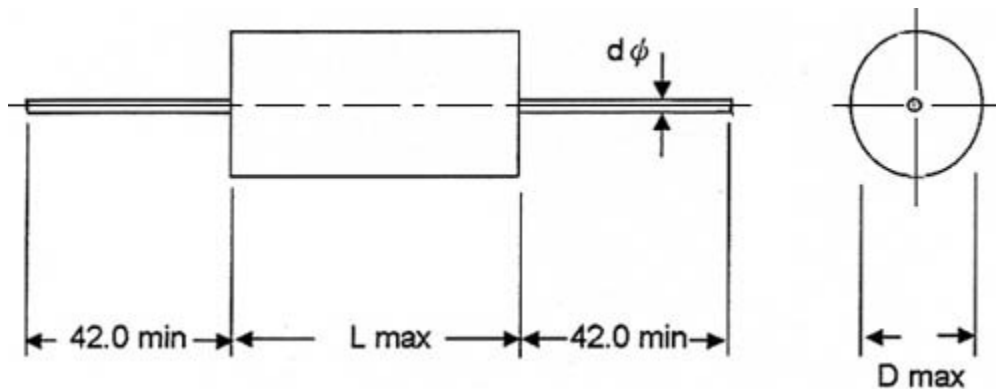
SPECIFICATIONS

Voltage Range 電壓範圍	600~3000 VDC
Capacitance Range 電容範圍	0.01~4.7uF
Capacitance Tolerance 電容誤差	±10%
Operating Temperature Range 工作溫度範圍	-55°C to 105°C
Dielectric strength 介電強度	160 % of the rated voltage for 60 sec 160%的額定電壓持續 60 秒
Dissipation Factor (DF) 散逸因素	<0.1% max at 1 KHZ 25°C
Insulation Resistance(IR) 絕緣電阻	>100,000MΩ x uF at 100vdc measured after 2 minutes

Typical Characteristics



DPT



Metallized Polypropylene Film Capacitors(Tubular)

600VDC(275VAC) TYPE : DPT (UNIT : mm)

CAP (μF)	L (mm)	D (mm)	d (mm)	Typical ESR($\text{m}\Omega$)	Typical ESL(nH)	dv/dt V/ μs	I peak A	I _{rms} (A) 100KHz 70°C
0.10	34.0	9.0	0.8	28	19	196	20	2.5
0.15	34.0	10.5	0.8	13	20	196	29	4.0
0.22	34.0	11.5	0.8	12	20	196	43	4.4
0.33	34.0	13.5	0.8	9	21	196	65	5.6
0.47	34.0	15.5	1.0	7	22	196	92	6.9
0.68	34.0	18.0	1.0	6	23	196	134	8.1
1.00	34.0	21.0	1.0	6	24	196	196	8.9
1.50	34.0	25.0	1.2	5	26	196	295	10.9
2.00	46.0	23.5	1.2	5	31	128	255	11.8
3.30	54.0	27.0	1.2	4	36	105	346	15.3
4.70	54.0	32.5	1.2	4	38	105	492	16.8

TAI-YAO ELECTRONICS CO., LTD. FILM CAPACITORS

850VDC(450VAC) TYPE : DPT (UNIT : mm)

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR($m\Omega$)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70°C
0.15	34.0	13.0	0.8	8	21	713	107	5.8
0.22	34.0	15.5	1.0	8	22	713	157	6.4
0.33	34.0	18.0	1.0	7	23	713	235	7.5
0.47	34.0	21.0	1.0	5	24	713	335	9.8
0.68	34.0	24.5	1.2	4	26	713	485	12.0
1.00	46.0	22.5	1.2	5	30	400	400	11.5
1.50	46.0	27.0	1.2	4	32	400	600	14.3
2.00	46.0	30.5	1.2	3	34	400	800	17.9
2.20	46.0	32.0	1.2	3	34	400	880	18.4
2.50	46.0	34.0	1.2	3	35	400	1000	19.1

1000VDC(500VAC) TYPE : DPT (UNIT : mm)

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR($m\Omega$)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70°C
0.15	34.0	15.0	1.0	7	22	856	128	6.7
0.22	34.0	17.5	1.0	7	23	856	188	7.4
0.33	34.0	20.5	1.0	6	24	856	283	8.8
0.47	34.0	24.0	1.2	5	26	856	402	10.6
0.68	34.0	28.0	1.2	5	27	856	582	11.7
1.00	46.0	26.0	1.2	5	32	480	480	12.5
1.50	46.0	31.0	1.2	4	34	480	720	15.6
2.00	46.0	35.5	1.2	3	36	480	960	19.6

1200VDC(500VAC) TYPE : DPT (UNIT : mm)

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR($m\Omega$)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70°C
0.10	34.0	15.5	1.0	9	22	1142	114	6.1
0.15	34.0	18.5	1.0	7	23	1142	171	7.6
0.22	34.0	21.5	1.0	7	24	1142	251	8.4
0.33	46.0	20.0	1.0	7	29	640	211	9.0
0.47	46.0	23.0	1.2	7	30	640	301	9.8
0.68	46.0	27.0	1.2	6	32	640	435	11.7
1.00	46.0	33.0	1.2	5	35	640	640	14.5
1.50	54.0	35.0	1.2	4	39	502	754	17.9

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR(m Ω)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70 $^{\circ}$ C
0.10	34.0	18.0	1.0	7	25	1427	143	7.5
0.15	34.0	21.5	1.0	5	24	1427	214	9.9
0.22	34.0	25.5	1.2	7	26	1427	314	9.3
0.33	46.0	23.5	1.2	7	31	800	264	10.0
0.47	46.0	27.5	1.2	6	32	800	376	11.8
0.68	46.0	32.5	1.2	6	35	800	544	13.1
1.00	46.0	39.0	1.2	5	37	800	800	16.2
1.50	54.0	42.0	1.2	4	42	628	942	20.1
2.00	64.0	42.5	1.2	3	45	476	953	21.2

2000VDC(500VAC) TYPE : DPT (UNIT : mm)

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR(m Ω)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70 $^{\circ}$ C
0.022	34.0	11.5	0.8	35	6	1712	38	2.6
0.033	34.0	13.5	0.8	20	21	1712	57	3.8
0.047	34.0	15.0	1.0	12	22	1712	80	5.2
0.068	34.0	17.5	1.0	8	23	1712	116	6.9
0.100	34.0	21.0	1.0	7	24	1712	171	8.3
0.150	46.0	19.5	1.0	7	29	960	144	8.9
0.220	46.0	22.0	1.0	8	30	960	211	9.0
0.330	46.0	27.0	1.2	8	32	960	317	10.1
0.470	46.0	32.0	1.2	6	34	960	451	13.0
0.560	54.0	31.0	1.2	7	37	754	422	12.6
0.680	54.0	34.0	1.2	6	39	754	513	14.3
1.000	54.0	41.0	1.2	5	42	754	754	17.7

3000VDC(500VAC) TYPE : DPT (UNIT : mm)

CAP (μ F)	L (mm)	D (mm)	d (mm)	Typical ESR(m Ω)	Typical ESL(nH)	dv/dt V/us	I peak A	Irms(A) 100KHz 70 $^{\circ}$ C
0.010	34.0	11.5	0.8	60	20	2568	26	2.0
0.015	34.0	13.5	0.8	40	21	2568	39	2.7
0.022	34.0	15.5	1.0	25	22	2568	57	3.6
0.033	34.0	18.0	1.0	14	23	2568	85	5.3
0.047	46.0	16.5	1.0	14	28	1440	68	5.7
0.068	46.0	19.0	1.0	12	29	1440	98	6.7
0.100	46.0	22.5	1.2	10	30	1440	144	8.1
0.150	46.0	27.0	1.2	8	32	1440	216	10.1