

Type DPPS High Voltage, High Frequency, Ultra high Peak Currents

Film/Foil Radial Leaded Polypropylene Capacitors

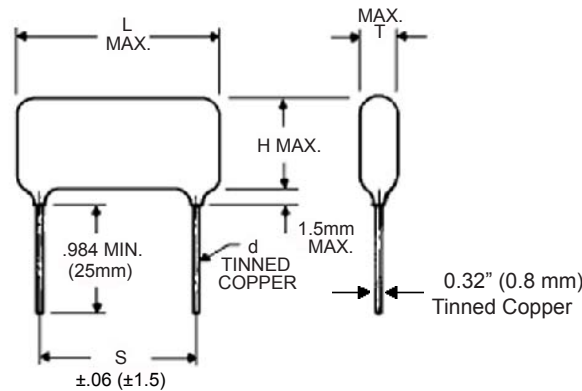
Type DPPS radial-leaded polypropylene film/foil capacitors utilize wound extended foil with a floating common foil. Smaller size and shorter length result in very low inductance. High pulse current and voltage capability make Type DPPS ideal for snubber applications. High frequency characteristics further enhance performance.



Highlights

- High dv/dt
- High AC current
- Good for pulse applications
- Low DF

Outline Drawing



NOTE: Other capacitance values, sizes and performance specifications are available. Please contact CDE.

Specifications

- Capacitance Range:** .001 to .033 μ F
- Voltage Range:** 1000 to 2000 Vdc (450 to 500 Vac @ 60 Hz)
- Capacitance Tolerance:** \pm 10% (K) standard, \pm 5% (J), \pm 20% (M) optional
- Operating Temperature Range:** -55° C to $+105^{\circ}$ C, Full rated voltage at $+85^{\circ}$ C and derated linearly to 50% rated voltage at $+105^{\circ}$ C
- Dielectric Strength:** 175%
- Dissipation Factor:** 0.10% Max. ($+25^{\circ}$ C, 1 kHz)
- Insulation Resistance:** 200,000 M Ω \times μ F, 400,000 M Ω Min.
- Life Test:** 500 hr @ 85° C @ 150% rated voltage
- Pulse Capability:**

Rated Voltage	Pulse Capacity	
	Body Length	
	0.984	\geq 1.259
	dv/dt — volts per microsecond, maximum	
1000	8400	6400
1600	16000	12000
2000	16800	12800



Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

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Ratings

RoHS Compliant

Cap. µF	Catalog Part Number	L in. (mm)	H in. (mm)	T in.(mm)	S in. (mm)	Ipk Amps	Irms. Amps 1 kHz	10 kHz	100 kHz
1000 Vdc (450 Vac)									
.0010	DPPS10D1K-F	.984(25.0)	.511(13.0)	.314(8.0)	.826 (21.0)	8.4	.003	.028	.23
.0012	DPPS10D12K-F	.984(25.0)	.511(13.0)	.314(8.0)	.826 (21.0)	10.0	.003	.034	.25
.0015	DPPS10D15K-F	.984(25.0)	.511(13.0)	.314(8.0)	.826 (21.0)	13.0	.004	.042	.28
.0018	DPPS10D18K-F	.984(25.0)	.511(13.0)	.314(8.0)	.826 (21.0)	15.0	.005	.051	.30
.0022	DPPS10D22K-F	.984(25.0)	.551(14.0)	.334(8.5)	.826 (21.0)	18.0	.006	.062	.35
.0027	DPPS10D27K-F	.984(25.0)	.551(14.0)	.334(8.5)	.826 (21.0)	23.0	.008	.076	.39
.0033	DPPS10D33K-F	.984(25.0)	.590(15.0)	.354(9.0)	.826 (21.0)	5.1	.009	.093	.45
.0039	DPPS10D39K-F	.984(25.0)	.590(15.0)	.354(9.0)	.826 (21.0)	33.0	.011	.110	.48
.0047	DPPS10D47K-F	.984(25.0)	.629(16.0)	.374(9.5)	.826 (21.0)	39.0	.013	.13	.55
.0056	DPPS10D56K-F	.984(25.0)	.669(17.0)	.413(10.5)	.826 (21.0)	47.0	.016	.16	.63
.0068	DPPS10D68K-F	.984(25.0)	.708(18.0)	.452(11.5)	.826 (21.0)	57.0	.019	.19	.73
.0082	DPPS10D82K-F	.984(25.0)	.748(19.0)	.492(12.5)	.826 (21.0)	69.0	.023	.23	.83
.010	DPPS10S1K-F	.984(25.0)	.787(20.0)	.511(13.0)	.826 (21.0)	84.0	.028	.28	.94
.012	DPPS10S12K-F	.984(25.0)	.866(22.0)	.511(13.0)	.826 (21.0)	100.0	.034	.34	1.10
.015	DPPS10S15K-F	1.259(32.0)	.905(23.5)	.511(13.0)	1.043 (26.5)	130.0	.042	.42	1.30
.018	DPPS10S18K-F	1.259(32.0)	.964(24.5)	.551(14.0)	1.043 (26.5)	150.0	.051	.51	1.50
.022	DPPS10S22K-F	1.259(32.0)	1.043(26.5)	.510(15.5)	1.043 (26.5)	180.0	.062	.62	1.80
.027	DPPS10S27K-F	1.259(32.0)	1.082(27.0)	.669(17.0)	1.102 (28.0)	230.0	.076	.76	2.00
.033	DPPS10S33K-F	1.259(32.0)	1.181(30.0)	.748(19.0)	1.102 (28.0)	280.0	.093	.93	2.40
1600 Vdc (500 Vac)									
.0010	DPPS16D1K-F	.984 (25.0)	.511 (13.0)	.354 (9.0)	.826 (21.0)	16.0	.003	.031	.23
.0012	DPPS16D12K-F	.984 (25.0)	.511 (13.0)	.354 (9.0)	.826 (21.0)	19.0	.004	.038	.26
.0015	DPPS16D15K-F	.984 (25.0)	.551 (14.0)	.354 (9.0)	.826 (21.0)	24.0	.005	.047	.29
.0018	DPPS16D18K-F	.984 (25.0)	.551 (14.0)	.354 (9.0)	.826 (21.0)	29.0	.006	.057	.32
.0022	DPPS16D22K-F	.984 (25.0)	.590 (15.0)	.354 (9.0)	.826 (21.0)	35.0	.007	.069	.36
.0027	DPPS16D27K-F	.984 (25.0)	.629 (16.0)	.374 (9.5)	.826 (21.0)	43.0	.008	.085	.42
.0033	DPPS16D33K-F	.984 (25.0)	.669 (17.0)	.413 (10.5)	.826 (21.0)	53.0	.010	.100	.48
.0039	DPPS16D39K-F	.984 (25.0)	.708 (18.0)	.452 (11.5)	.826 (21.0)	62.0	.012	.120	.55
.0047	DPPS16D47K-F	.984 (25.0)	.475 (19.0)	.472 (12.0)	.826 (21.0)	75.0	.015	.150	.62
.0056	DPPS16D56K-F	1.259 (32.0)	.826 (21.0)	.472 (12.0)	1.043 (26.5)	90.0	.018	.180	.77
.0068	DPPS16D68K-F	1.259 (32.0)	.826 (21.0)	.472 (12.0)	1.043 (26.5)	110.0	.021	.210	.85
.0082	DPPS16D82K-F	1.259 (32.0)	.866 (22.0)	.511 (13.0)	1.043 (26.5)	130.0	.026	.260	.97
.010	DPPS16S1K-F	1.259 (32.0)	.905 (23.0)	.590 (15.0)	1.043 (26.5)	160.0	.031	.310	1.14
.012	DPPS16S12K-F	1.259 (32.0)	.944 (24.0)	.629 (16.0)	1.043 (26.5)	190.0	.038	.380	1.30
.015	DPPS16S15K-F	1.259 (32.0)	1.023 (26.0)	.708 (18.0)	1.043 (26.5)	240.0	.047	.470	1.50
.018	DPPS16S18K-F	1.299 (33.0)	1.102 (28.0)	.787 (20.0)	1.102 (28.0)	220.0	.057	.570	1.80
.022	DPPS16S22K-F	1.299 (33.0)	1.181 (30.0)	.787 (20.0)	1.102 (28.0)	260.0	.069	.690	2.00
2000 Vdc (500 Vac)									
.0010	DPPS20D1K-F	.984 (25.0)	.590 (15.0)	.393 (10.0)	.826 (21.0)	17.0	.003	.031	.25
.0012	DPPS20D12K-F	.984 (25.0)	.590 (15.0)	.393 (10.0)	.826 (21.0)	20.0	.004	.038	.28
.0015	DPPS20D15K-F	.984 (25.0)	.590 (15.0)	.393 (10.0)	.826 (21.0)	25.0	.005	.047	.31
.0018	DPPS20D18K-F	.984 (25.0)	.629 (16.0)	.433 (11.0)	.826 (21.0)	30.0	.006	.057	.35
.0022	DPPS20D22K-F	.984 (25.0)	.669 (17.0)	.472 (12.0)	.826 (21.0)	37.0	.007	.069	.41
.0027	DPPS20D27K-F	.984 (25.0)	.708 (18.0)	.511 (13.0)	.826 (21.0)	45.0	.008	.085	.47
.0033	DPPS20D33K-F	.984 (25.0)	.787 (20.0)	.551 (14.0)	.826 (21.0)	55.0	.010	.100	.55
.0039	DPPS20D39K-F	.984 (25.0)	.866 (22.0)	.590 (15.0)	.826 (21.0)	66.0	.012	.120	.63
.0047	DPPS20D47K-F	1.259 (32.0)	.866 (22.0)	.551 (14.0)	1.043 (26.5)	79.0	.015	.150	.75
.0056	DPPS20D56K-F	1.259 (32.0)	.905 (23.0)	.590 (15.0)	1.043 (26.5)	94.0	.018	.180	.85
.0068	DPPS20D68K-F	1.259 (32.0)	.944 (24.0)	.629 (16.0)	1.043 (26.5)	110.0	.021	.210	.96
.0082	DPPS20D82K-F	1.259 (32.0)	.984 (25.0)	.669 (17.0)	1.043 (26.5)	140.0	.026	.260	1.10
.010	DPPS20S1K-F	1.259 (32.0)	1.023 (26.0)	.708 (18.0)	1.043 (26.5)	170.0	.031	.310	1.20
.012	DPPS20S12K-F	1.299 (33.0)	1.122 (28.5)	.787 (20.0)	1.102 (28.0)	150.0	.038	.380	1.50
.015	DPPS20S15K-F	1.299 (33.0)	1.220 (31.0)	.826 (21.0)	1.102 (28.0)	190.0	.047	.470	1.70