Type 946 High dV/dt, Round Polypropylene Capacitors

Double Metallized Axial Leaded

Type 946C is a round, axial leaded metallized polypropylene capacitor with double metallized electrodes for both self healing properties and high peak current carrying capability (dV/dt). The series features low ESR characteristics, excellent high frequency and high voltage capabilities.

Highlights

- Low ESR
- High dV/dt
- High Frequency
- High Voltage

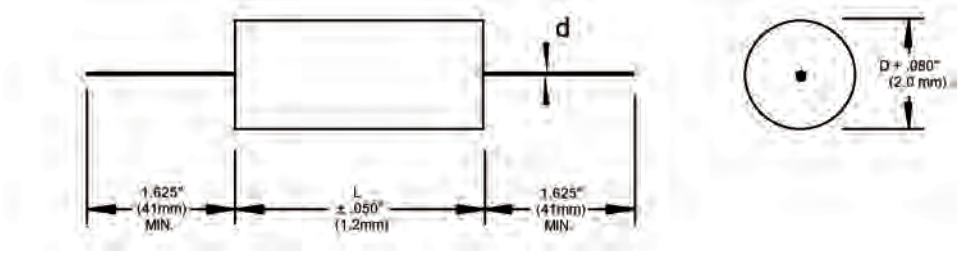
Specifications

Capacitance Range: .01 to 2.5 µF
Voltage Range: 850 - 3000 Vdc (450 - 750 Vac. 60 Hz)
Capacitance tolerance: ±5% (J) Standard, ±10% (K) Optional
Operating Temperature Range: – 55 ºC to 105 ºC (with full rated voltage at 85 ºC derate lineraly to 50% of rated voltage at 105 ºC)

RoHS Compliant

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).

Outline Drawing



Ratings

Cap. (µF)	Catalog Part Number	D +.08 (2.0) Inches (mm)	L ±.05 (1.2) Inches (mm)	d Inches (mm)	Typical ESR @100 KHz milliohms	dV/dt (V/µs)	I peak (A)	I_{RMS} 70 ºC 100 kHz (A)
			850 Vdc (450 Vac)					
0.15	946C8P15J–F	0.394 (10.0)	1.220 (31.0)	.040 (1.0)	8.5	300	45	5
0.22	946C8P22J–F	0.472 (12.0)	1.220 (31.0)	.040 (1.0)	6.6	300	66	7
0.33	946C8P33J–F	0.571 (14.5)	1.220 (31.0)	.040 (1.0)	4.6	300	100	9
0.47	946C8P47J–F	0.669 (17.0)	1.220 (31.0)	.040 (1.0)	3.5	300	140	9
0.68	946C8P68J–F	0.807 (20.5)	1.220 (31.0)	.040 (1.0)	2.7	300	200	9
1.00	946C8W1J–F	0.807 (20.5)	1.654 (42.0)	.040 (1.0)	3.1	200	200	9
1.50	946C8W1P5J–F	0.965 (24.5)	1.654 (42.0)	.051 (1.3)	2.3	200	300	11
2.00	946C8W2J–F	1.122 (28.5)	1.654 (42.0)	.051 (1.3)	2.0	200	400	11
2.20	946C8W2P2J–F	1.181 (30.0)	1.654 (42.0)	.051 (1.3)	1.9	200	440	11
2.50	946C8W2P5J–F	1.240 (31.5)	1.654 (42.0)	.051 (1.3)	1.9	200	500	11
			1200 Vdc (500 Vac)					
0.10	946C12P1J–F	0.551 (14.0)	1.220 (31.0)	.040 (1.0)	8.7	1100	110	7
0.15	946C12P15J–F	0.699 (17.0)	1.220 (31.0)	.040 (1.0)	6.1	1100	165	9

Type 946 High dV/dt, Round Polypropylene Film Capacitors

Cap. (µF)	Catalog Part Number	D +.08 (2.0) Inches (mm)	L ±.05 (1.2) Inches (mm)	d Inches (mm)	Typical ESR @100 KHz milliohms	dV/dt (V/µs)	I peak (A)	I_{RMS} 70 °C 100 kHz (A)
			1200 Vdc (500 Vac)					
0.22	946C12P22J–F	0.807 (20.5)	1.220 (31.0)	.040 (1.0)	4.5	1100	240	9
0.33	946C12P33J–F	0.768 (19.5)	1.654 (42.0)	.040 (1.0)	4.7	650	215	9
0.47	946C12P47J–F	0.906 (23.0)	1.654 (42.0)	.051 (1.3)	3.6	650	305	9
0.68	946C12P68J–F	1.083 (27.5)	1.654 (42.0)	.051 (1.3)	2.7	650	440	11
1.00	946C12W1J–F	1.319 (33.5)	1.654 (42.0)	.051 (1.3)	2.3	650	650	11
1.20	946C12W1P2J–F	1.142 (29.0)	2.165 (55.0)	.051 (1.3)	2.8	400	480	11
			2000 Vdc (630 Vac)					
0.022	946C20S22J–F	0.413 (10.5)	1.220 (31.0)	.040 (1.0)	32	1750	39	3
0.033	946C20S33J–F	0.492 (12.5)	1.220 (31.0)	.040 (1.0)	21	1750	58	4
0.047	946C20S47J–F	0.571 (14.5)	1.220 (31.0)	.040 (1.0)	15	1750	80	5
0.068	946C20S68J–F	0.669 (17.0)	1.220 (31.0)	.040 (1.0)	11	1750	120	7
0.100	946C20P1J–F	0.807 (20.5)	1.220 (31.0)	.040 (1.0)	7.6	1750	175	9
0.150	946C20P15J–F	0.768 (19.5)	1.654 (42.0)	.040 (1.0)	7.4	1000	150	9
0.220	946C20P22J–F	0.925 (23.5)	1.654 (42.0)	.051 (1.3)	5.4	1000	220	9
0.330	946C20P33J–F	1.122 (28.5)	1.654 (42.0)	.051 (1.3)	3.9	1000	330	11
0.470	946C20P47J–F	1.319 (33.5)	1.654 (42.0)	.051 (1.3)	3.1	1000	470	11
0.560	946C20P56J–F	1.142 (29.0)	2.165 (55.0)	.051 (1.3)	3.9	650	365	11
			3000 Vdc (750 Vac)					
0.010	946C30S1J–F	0.472 (12.0)	1.220 (31.0)	.040 (1.0)	62	2750	28	2
0.015	946C30S15J–F	0.551 (14.0)	1.220 (31.0)	.040 (1.0)	41	2750	41	3
0.022	946C30S22J–F	0.650 (16.5)	1.220 (31.0)	.040 (1.0)	28	2750	60	4
0.033	946C30S33J–F	0.787 (20.0)	1.220 (31.0)	.040 (1.0)	19	2750	90	5
0.047	946C30S47J–F	0.728 (18.5)	1.654 (42.0)	.040 (1.0)	18	1600	75	6
0.068	946C30S68J–F	0.866 (22.0)	1.654 (42.0)	.040 (1.0)	13	1600	110	8
0.100	946C30P1J–F	1.043 (26.5)	1.654 (42.0)	.051 (1.3)	8.8	1600	160	11
0.150	946C30P15J–F	1.260 (32.0)	1.654 (42.0)	.051 (1.3)	6.2	1600	240	11