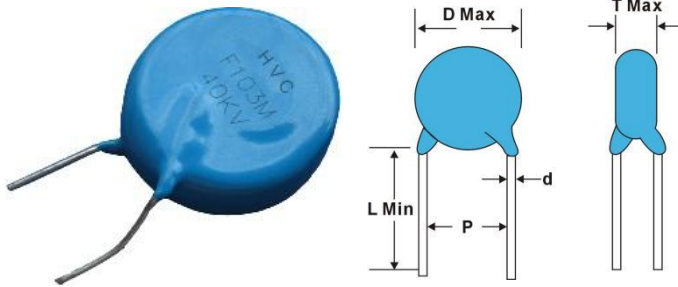


## Ceramic Disc Capacitors Class 1 and 2, 1 kV<sub>DC</sub> to 50 kV<sub>DC</sub> , General Purpose



Capacitors with 7.5 mm (0.30") to 15 mm (0.40") lead spacing(P)

### QUICK REFERENCE DATA

DESCRIPTION	UJ,SL,X5F,X7R,N4700,Y5T,Y5U,Y5V
Voltage (V <sub>DC</sub> )	1000 to 50000
Min. Capacitance (pF)	10
Max. Capacitance (pF)	33 000
Mounting	Through hole

### OPERATING TEMPERATURE RANGE

Class 1: SL, - 40 °C to + 125 °C

Class 1: N4700, - 25 °C to + 100 °C

Class 2: Y5T, Y5U, Y5V, - 25 °C to + 85 °C

Class 2: X7R, - 40 °C to + 125 °C

### TEMPERATURE COEFFICIENTS

Class 1 SL, N4700

Class 2 X7R, Y5P, Y5T, Y5V, X5F, Y5U

### CAPACITANCE RANGE

10 pF to 33 000 pF

### RATED DC VOLTAGE

1 kV to 50 kV

### DIELECTRIC STRENGTH

150 % of rated voltage (10KV to 50KV)

### FEATURES

- Low losses
- High stability
- High capacitance in small size
- Kinked (preferred) or straight leads
- Compliant to RoHS directive 2002/95/EC

### APPLICATIONS

- DC high voltage
- Pulse high voltage
- SMPS
- HV power supply
- HF ballast

### DESIGN

The capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper.

The capacitors may be supplied with kinked or straight leads with a lead spacing of 5 mm (0.20"), 7.5 mm (0.30") or 10 mm (0.40") and a lead length from 4 mm to 30 mm. The standard tolerance on capacitance is 5 % or 10 % for class 1 capacitors and ± 10 % or ± 20 % for class 2 capacitors. Encapsulation is made of blue-colored epoxy-resin.

### INSULATION RESISTANCE AT 500 V<sub>DC</sub>

N4700: >= 200 000 MΩ

UJ,SL,X5F,X7R,Y5T: >= 100 000 MΩ

Y5U,Y5V: >= 10 000 MΩ

### TOLERANCE ON CAPACITANCE

± 5 %; ± 10 %; ± 20 %; + 80/- 20 %

Other tolerances available on request

### DISSIPATION FACTOR

UJ,SL: 6X10<sup>-4</sup>

X5F: 1%

X7R: 1.5%

N4700: 0.2%

Y5T: 1%

Y5U,Y5V: 2%



**RoHS**  
COMPLIANT



## Ceramic Disc Capacitors Class 1 and 2, 1 kV<sub>DC</sub> to 50 kV<sub>DC</sub> , General Purpose

NO.	Part Number	Material	Max (mm)			
			D	T	P	d
1	HVC-2KV-N08-F7.5-10PK	NP0	8	4	7.5	0.6
2	HVC-2KV-N08-F7.5-15PK	NP0	8	4	7.5	0.6
3	HVC-2KV-SL08-F7.5-22PK	SL	8	4	7.5	0.6
4	HVC81-2KV-SL08-F7.5-27PK	SL	8	4	7.5	0.6
5	HVC-2KV-SL08-F7.5-33PK	SL	8	4	7.5	0.6
6	HVC-2KV-SL08-F7.5-47PK	SL	8	4	7.5	0.6
7	HVC-2KV-SL08-F7.5-56PK	SL	8	4	7.5	0.6
8	HVC-2KV-SL08-F5-68PK	SL	8	4	7.5	0.6
9	HVC-2KV-DP08-F5-101K	Y5P	8	4	7.5	0.6
10	HVC-2KV-DP08-F7.5-151K	Y5P	8	4	7.5	0.6
11	HVC-2KV-DP08-F7.5-221K	Y5P	8	4	7.5	0.6
12	HVC-2KV-DP08-F7.5-331K	Y5P	8	4	7.5	0.6
13	HVC-2KV-DP08-F7.5-471K	Y5P	8	4	7.5	0.6
14	HVC-2KV-DP08-F7.5-561K	Y5P	8	4	7.5	0.6
15	HVC-2KV-DP08-F7.5-681K	Y5P	8	4	7.5	0.6
16	HVC-2KV-DP08-F7.5-102K	Y5P	8	4	7.5	0.6
17	HVC-2KV-DP08-F10-222K	Y5P	8	4	10	0.6
18	HVC-2KV-E07-F7.5-222M	Y5U	7	4	7.5	0.6
19	HVC-2KV-DP14-F10-332K	Y5P	14	4	10	0.6
20	HVC-2KV-E11-F10-332M	Y5U	11	4	10	0.6
21	HVC-2KV-DP14-F10-472K	Y5P	14	4	10	0.6
22	HVC-2KV-E11-F10-472M	Y5U	11	4	10	0.6
23	HVC-2KV-DP17-F10-103K	Y5P	17	4	10	0.8
24	HVC-2KV-E14-F10-103M	Y5U	14	4	10	0.6
25	HVC-2KV-F09-F10-103Z	Y5V	9	4	10	0.6
26	HVC-3KV-SL08-F7.5-10PK	SL	8	4.5	7.5	0.6
27	HVC-3KV-SL08-F7.5-15PK	SL	8	4.5	7.5	0.6
28	HVC-3KV-SL08-F7.5-22PK	SL	8	4.5	7.5	0.6
29	HVC-3KV-SL08-F7.5-27PK	SL	8	4.5	7.5	0.6
30	HVC-3KV-SL08-F7.5-33PK	SL	8	4.5	7.5	0.6
31	HVC-3KV-SL08-F7.5-47PK	SL	8	4.5	7.5	0.6
32	HVC-3KV-SL08-F7.5-56PK	SL	8	4.5	7.5	0.6
33	HVC-3KV-SL08-F7.5-68PK	SL	8	4.5	7.5	0.6
34	HVC-3KV-SL08-F7.5-101K	SL	8	4.5	7.5	0.6
35	HVC-3KV-DP06-F5-101K	Y5P	6	4	5	0.6
36	HVC-3KV-DP08-F10-151K	Y5P	8	4.5	10	0.6
37	HVC-3KV-DP08-F10-221K	Y5P	8	4.5	10	0.6
38	HVC-3KV-DP08-F10-331K	Y5P	8	4.5	10	0.6
39	HVC-3KV-DP08-F10-471K	Y5P	8	4.5	10	0.6
40	HVC-3KV-DP08-F10-561K	Y5P	8	4.5	10	0.6
41	HVC-3KV-DP08-F10-681K	Y5P	8	4.5	10	0.6
42	HVC-3KV-DP08-F10-102K	Y5P	8	4.5	10	0.6
43	HVC-3KV-DP10-F10-222K	Y5P	10	4.5	10	0.6
44	HVC-3KV-E08-F10-222M	Y5U	8	4.5	10	0.6

NO.	Part Number	Material	Max (mm)			
			D	T	P	d
45	HVC-3KV-DP14-F10-332K	Y5P	10	14	4.5	10
46	HVC-3KV-E08-F5-332M	Y5U	8	4.5	5	0.6
47	HVC-3KV-DP14-F10-472K	Y5P	14	4.5	10	0.6
48	HVC-3KV-E10-F10-472M	Y5U	10	4.5	10	0.6
49	HVC-3KV-E17-F10-103M	Y5U	17	4.5	10	0.65
50	HVC-3KV-F11-F10-103M	Y5V	11	4.5	10	0.6
51	HVC-6KV-N09-F10-10PK	NP0	9	6	10	0.6
52	HVC-6KV-SL08-F10-10PK	SL	8	5	10	0.6
53	HVC-6KV-SL08-F10-22PK	SL	8	5	10	0.6
54	HVC-6KV-SL08-F10-33PK	SL	8	5	10	0.6
55	HVC-6KV-SL08-F10-47PK	SL	9	5	10	0.6
56	HVC-6KV-SL09-F10-101K	SL	9	6	10	0.6
57	HVC-6KV-DL06-F5-101K	N4700	6	4	5	0.5
58	HVC-6KV-DP09-F10-101K	Y5P	9	5	10	0.6
59	HVC-6KV-DP09-F10-221K	Y5P	9	5	10	0.6
60	HVC-6KV-DL08-F10-221K	N4700	10	6	10	0.6
61	HVC-6KV-DP09-F10-331K	Y5P	9	5	10	0.6
62	HVC-6KV-DL10-F10-331K	N4700	10	5	10	0.6
63	HVC-6KV-DP09-F10-471K	Y5P	9	5	10	0.6
64	HVC-6KV-DL11-F10-471K	N4700	11	5	10	0.6
65	HVC-6KV-DP11-F10-102K	Y5P	11	5	10	0.6
66	HVC-6KV-D11-F10-102K	Y5T	11	6	10	0.6
67	HVC-6KV-E08-F10-102M	Y5U	8	5	10	0.6
68	HVC-6KV-D16-F10-222K	Y5T	16	5	10	0.6
69	HVC-6KV-E10-F10-222M	Y5U	10	5	10	0.6
70	HVC-6KV-E15-F10-332M	Y5U	15	5	10	0.6
71	HVC-6KV-E17-F10-472M	Y5U	17	5	10	0.6
72	HVC-6KV-E23-F12.5-103M	Y5U	23	6	12.5	0.8
73	HVC-6KV-F19-F9.5-103M	Y5V	19	6	10	0.65
74	HVC-10KV-D06-F7.5-101K	Y5T	6	5	7.5	0.65
75	HVC-10KV-DL07-F10-101K	N4700	7	7	10	0.65
76	HVC-10KV-D08-F7.5-151K	Y5T	7	6	7.5	0.65
77	HVC-10KV-DL08-F10-151K	N4700	8	7	10	0.65
78	HVC-10KV-D08-F7.5-221K	Y5T	8	5.5	7.5	0.65
79	HVC-10KV-DL08-F10-221K	UJ	9	5	9.5	0.6
80	HVC-10KV-D08-F7.5-331K	Y5T	8	6	7.5	0.65
81	HVC-10KV-DL08-F10-331K	N4700	10	6.5	10	0.65
82	HVC-10KV-D09-F10-471K	Y5T	9	6	10	0.65
83	HVC-10KV-DL12-F10-471K	N4700	12	7	10	0.8
84	HVC-10KV-D10-F10-681K	Y5T	10	6	10	0.65
85	HVC-10KV-DL15-F10-681K	N4700	15	7	10	0.8
86	HVC-10KV-D14-F10-102K	Y5T	14	7	10	0.8
87	HVC-10KV-DL16-F10-102K	N4700	16	7	10	0.8
88	HVC-10KV-D17-F10-222K	Y5T	17	7	10	0.8



**Ceramic Disc Capacitors Class 1 and 2,  
1 kV<sub>DC</sub> to 50 kV<sub>DC</sub> , General Purpose**

No.	Part Number	Material	Max (mm)				No.	Part Number	Material	Max (mm)			
			D	T	P	d				D	T	P	d
89	HVC-10KV-E14-F10-222M	Y5U	14	7	10	0.8	136	HVC-10KV-D21-F12.5-332M	Y5T	24	8.5	12.5	0.8
90	HVC-10KV-D21-F12.5-332K	Y5T	21	7	12.5	0.8	137	HVC-25KV-D09-F7.5-221K	Y5T	9	8.5	7.5	0.65
91	HVC-10KV-E16-F10-332M	Y5U	16	7	10	0.8	138	HVC-25KV-D10-F10-331K	Y5T	10	8.5	10	0.65
92	HVC-10KV-E20-F12.5-472M	Y5U	20	7	12.5	0.8	139	HVC-25KV-D11-F10-471K	Y5T	11	8.5	10	0.65
93	HVC-10KV-F17-F12.5-682Z	Y5V	17	8	12.5	0.8	140	HVC-25KV-D13-F10-681K	Y5T	13	9	10	0.65
94	HVC-10KV-E33-F20-103M	Y5U	33	9	20	0.8	141	HVC-25KV-D16-F12.5-102K	Y5T	16	9	12.5	0.8
95	HVC-10KV-F21-F12.5-103Z	Y5V	21	7	12.5	0.8	142	HVC-25KV-D22-F12.5-222K	Y5T	22	10	12.5	0.8
96	HVC-15KV-D07-F7.5-101K	Y5T	7	7	7.5	0.65	143	HVC-25KV-F17-F12.5-472Z	Y5V	17	9	12.5	0.8
97	HVC-15KV-DL07-F10-101K	N4700	7	7	10	0.65	144	HVC-25KV-F25-F16-103Z	Y5V	25	10.5	16	0.8
98	HVC-15KV-DL09-F10-151K	N4700	9	7	10	0.65	145	HVC-30KV-D08-F10-101K	Y5T	8	9	10	0.65
99	HVC-15KV-D08-F7.5-221K	Y5T	8	7	7.5	0.65	146	HVC-30KV-DL10-F10-101K	N4700	10	10	10	0.8
100	HVC-15KV-DL10-F10-221K	N4700	10	7	10	0.65	147	HVC-30KV-D10-F15-151K	Y5T	10	11	15	0.8
101	HVC-15KV-D08-F7.5-331K	Y5T	8	7	7.5	0.65	148	HVC-30KV-DL13-F10-151K	N4700	13	10	10	0.8
102	HVC-15KV-DL12-F10-331K	N4700	12	8	10	0.65	149	HVC-30KV-D11-F15-221K	Y5T	11	11	15	0.8
103	HVC-15KV-D09-F10-471K	Y5T	9	7	10	0.65	150	HVC-30KV-DL13-F12.5-221K	N4700	13	9	12.5	0.8
104	HVC-15KV-DL14-F10-471K	N4700	14	8	10	0.8	151	HVC-30KV-D11-F10-331K	Y5T	11	10	10	0.8
105	HVC-15KV-D11-F10-681K	Y5T	11	7	10	0.65	152	HVC-30KV-DL15-F10-331K	N4700	15	11	10	0.8
106	HVC-15KV-DL16-F10-681K	N4700	16	8	12.5	0.8	153	HVC-30KV-D12-F12.5-471K	Y5T	12	10	12.5	0.8
107	HVC-15KV-D13-F10-102K	Y5T	13	7	10	0.8	154	HVC-30KV-DL20-F12.5-471K	N4700	20	11	12.5	0.8
108	HVC-15KV-DL18-F12.5-102K	N4700	18	8	12.5	0.8	155	HVC-30KV-DL20-F12.5-501K	N4700	20	12	16	0.8
109	HVC-15KV-D19-F12.5-222K	Y5T	19	8	12.5	0.8	156	HVC-30KV-D14-F12.5-681K	Y5T	14	10	12.5	0.8
110	HVC-30KV-DL19-F17.5-501K	N4700	19	11	17.5	0.8	157	HVC-30KV-D17-F12.5-102K	Y5T	17	10.5	12.5	0.8
111	HVC-15KV-E21-F12.5-472M	Y5U	21	7	12.5	0.8	158	HVC-30KV-DL28-F17.5-102K	N4700	28	15	17.5	1.0
112	HVC-15KV-F18-F12.5-682Z	Y5V	18	8	12.5	0.8	159	HVC-30KV-D24-F14-222K	Y5T	24	10.5	14	1.0
113	HVC-15KV-F23-F12.5-103Z	Y5V	23	8	12.5	0.8	160	HVC-30KV-D26-F18-222K	Y5T	26	13	18	1.0
114	HVC-20KV-D07-F7.5-101K	Y5T	7	8	7.5	0.65	161	HVC-30KV-E23-F13-332M	Y5U	23	13	13	0.8
115	HVC-20KV-DL08-F10-101K	N4700	8	8	10	0.65	162	HVC-30KV-F23-F15-472Z	Y5V	23	13	15	0.8
116	HVC-20KV-DL11-F10-151K	N4700	11	8	10	0.65	163	HVC-30KV-F28-F16-103Z	Y5V	28	12	16	0.8
117	HVC-20KV-D07-F7.5-221K	Y5T	7	7	7.5	0.65	164	HVC-30KV-F31-F16-103Z	Y5V	31	15	16	0.8
118	HVC-20KV-DL12-F10-221K	N4700	12	8	10	0.65	165	HVC-40KV-D08-F10-101K	Y5T	8	12	10	0.8
119	HVC-20KV-D09-F7.5-331K	Y5T	9	7	7.5	0.65	166	HVC-40KV-DL11-F10-101K	N4700	11	12	10	0.8
120	HVC-20KV-DL13-F10-331K	N4700	13	9	10	0.65	167	HVC-40KV-DL16-F12.5-221K	N4700	16	13	12.5	0.8
121	HVC-20KV-D11-F10-471K	Y5T	11	8	10	0.65	168	HVC-40KV-D10-F10-251K	Y5T	10	12	12.5	0.8
122	HVC-20KV-DL16-F10-471K	N4700	16	9	10	0.8	169	HVC-40KV-D15-F15-471K	Y5T	15	13.5	15	0.8
123	HVC-20KV-D12-F10-501K	Y5T	12	8	10	0.65	170	HVC-40KV-DL25-F16-501K	N4700	25	17	16	1.0
124	HVC-20KV-D13-F10-681K	Y5T	13	8.5	10	0.65	171	HVC-40KV-D19-F14-102K	Y5T	19	13	14	0.8
125	HVC-20KV-D15-F10-102K	Y5T	15	8.5	10	0.8	172	HVC-40KV-DL32-F20-102K	N4700	32	16	20	1.2
126	HVC-20KV-D17-F12.5-102K	Y5T	17	9	12.5	0.8	173	HVC-50KV-SL15-F12.5-22PK	SL	15	17	12.5	0.8
127	HVC-20KV-D20-F12.5-102K	Y5T	20	8	12.5	0.8	174	HVC-50KV-SL16-F12.5-50PK	SL	16	17	12.5	0.8
128	HVC-20KV-E12-F10-102K	Y5U	12	8	10	0.65	175	HVC-50KV-DL12-F10-101K	N4700	12	13	12.5	0.8
129	HVC-20KV-DL21-F12.5-102K	N4700	21	10	12.5	0.8	176	HVC-50KV-D11-F16-251K	Y5T	11	14	16	0.8
130	HVC-20KV-D18-F10-152K	Y5T	18	8.5	10	0.8	177	HVC-50KV-D16-F16-471K	Y5T	16	16	16	0.8
131	HVC-20KV-D21-F12.5-222K	Y5T	21	8.5	12.5	0.8	178	HVC-50KV-DL27-F16-501K	N4700	27	19	16	1.2
132	HVC-20KV-E21-F12.5-332M	Y5U	21	8.5	12.5	0.8	179	HVC-50KV-D22-F16-102K	Y5T	22	18	16	0.8
133	HVC-20KV-E23-F12.5-472M	Y5U	23	8.5	12.5	0.8	180	HVC-50KV-DL34-F18-102K	N4700	34	19	18	1.2
134	HVC-20KV-F20-F12.5-682Z	Y5V	20	9	12.5	0.8	181	HVC-50KV-E26-F20-222M	Y5U	26	19	20	1.2
135	HVC-20KV-F24-F12.5-103Z	Y5V	40	22	20	1.2							