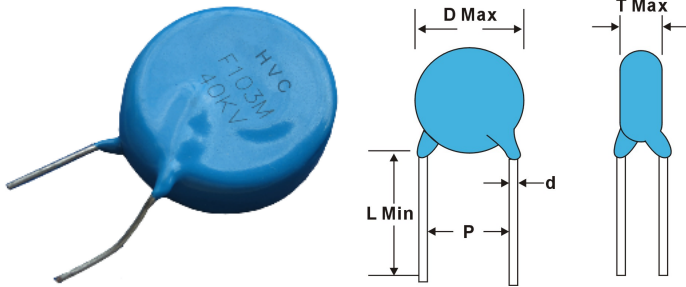


## Ceramic Disc Capacitors Class 1 and 2, 1 kV<sub>DC</sub> to 50 kV<sub>DC</sub>, General Purpose



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, - 25 °C to + 85 °C

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

Class 2, X5F, X7R, N4700 - 40 °C to + 125 °C

### TEMPERATURE COEFFICIENTS

Class 1 SL

Class 2 X7R, Y5P, Z5U, Y5V, X5F

### CAPACITANCE RANGE

10 pF to 33 000 pF

### RATED DC VOLTAGE

1 kV to 50 kV

### DIELECTRIC STRENGTH

200 % of rated voltage

### 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: 0.1% to 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	HVC81-2KV-UJ08-F5-10PK	UJ	8	4	5	0.6
2	HVC81-2KV-UJ08-F5-15PK	UJ	8	4	5	0.6
3	HVC81-2KV-SL08-F5-22PK	SL	8	4	5	0.6
4	HVC81-2KV-SL08-F5-27PK	SL	8	4	5	0.6
5	HVC81-2KV-SL08-F5-33PK	SL	8	4	5	0.6
6	HVC81-2KV-SL08-F5-47PK	SL	8	4	5	0.6
7	HVC81-2KV-SL08-F5-56PK	SL	8	4	5	0.6
8	HVC81-2KV-SL08-F5-68PK	SL	8	4	5	0.6
9	HVC81-2KV-SL08-F5-101K	SL	8	4	5	0.6
10	HVC81-2KV-SL12-F9.5-151K	SL	12	4	9.5	0.6
11	HVC81-2KV-SL12-F9.5-221K	SL	12	4	9.5	0.6
12	HVC81-2KV-SL14-F9.5-331K	SL	14	4	9.5	0.6
13	HVC81-2KV-SL16-F9.5-471K	SL	16	4	9.5	0.6
14	HVC81-2KV-SL18-F9.5-561K	SL	18	4	9.5	0.6
15	HVC81-2KV-X08-F5-101K	X5F	8	4	5	0.6
16	HVC81-2KV-DL06-F5-101K	N4700	6	4	5	0.6
17	HVC81-2KV-X08-F5-221K	X5F	8	4	5	0.6
18	HVC81-2KV-DL08-F5-221K	N4700	8	4	5	0.6
19	HVC81-2KV-DL08-F5-271K	N4700	8	4	5	0.6
20	HVC81-2KV-DL08-F5-331K	N4700	8	4	5	0.6
21	HVC81-2KV-X08-F5-331K	X7R	8	4	5	0.6
22	HVC81-2KV-DL08-F5-471K	N4700	8	4	5	0.6
23	HVC81-2KV-X08-F5-471K	X7R	8	4	5	0.6
24	HVC81-2KV-DL08-F5-561K	N4700	8	4	5	0.6
25	HVC81-2KV-X08-F5-561K	X7R	8	4	5	0.6
26	HVC81-2KV-DL10-F7.5-681K	N4700	10	4	7.5	0.6
27	HVC81-2KV-X08-F5-681K	X7R	8	4	5	0.6
28	HVC81-2KV-DL10-F7.5-102K	N4700	10	4	7.5	0.6
29	HVC81-2KV-X09-F7.5-102K	X7R	9	4	7.5	0.6
30	HVC81-2KV-DL14-F9.5-222K	N4700	14	4	9.5	0.6
31	HVC81-2KV-X12-F9.5-222K	X7R	12	4	9.5	0.6
32	HVC81-2KV-E08-F9.5-222M	Y5U	8	4	5	0.6
33	HVC81-2KV-DL17-F9.5-272K	N4700	17	4	9.5	0.65
34	HVC81-2KV-D14-F9.5-272K	Y5T	14	4	9.5	0.6
35	HVC81-2KV-E08-F5-272M	Y5U	8	4	5	0.6
36	HVC81-2KV-DL17-F9.5-332K	N4700	17	4	9.5	0.65
37	HVC81-2KV-D14-F9.5-332K	Y5T	14	4	9.5	0.6
38	HVC81-2KV-E08-F5-332M	Y5U	8	4	5	0.6
39	HVC81-2KV-X18-F9.5-472K	X7R	18	4	9.5	0.65
40	HVC81-2KV-D14-F9.5-472K	Y5T	14	4	9.5	0.6
41	HVC81-2KV-E10-F9.5-472M	Y5U	10	4	9.5	0.6
42	HVC81-2KV-D20-F9.5-103K	Y5T	20	4	9.5	0.8
43	HVC81-2KV-E16-F9.5-103M	Y5U	16	4	9.5	0.6
44	HVC81-2KV-F14-F9.5-103M	Y5V	14	4	9.5	0.6

NO.	Part Number	Material	Max (mm)			
			D	T	P	d
45	HVC81-3KV-UJ08-F5-10PK	UJ	8	4.5	5	0.6
46	HVC81-3KV-UJ08-F5-15PK	UJ	8	4.5	5	0.6
47	HVC81-3KV-SL08-F5-22PK	SL	8	4.5	5	0.6
48	HVC81-3KV-SL08-F5-27PK	SL	8	4.5	5	0.6
49	HVC81-3KV-SL08-F5-33PK	SL	8	4.5	5	0.6
50	HVC81-3KV-SL08-F5-47PK	SL	8	4.5	5	0.6
51	HVC81-3KV-SL08-F5-56PK	SL	8	4.5	5	0.6
52	HVC81-3KV-SL08-F5-68PK	SL	8	4.5	5	0.6
53	HVC81-3KV-SL08-F5-101K	SL	8	4.5	5	0.6
54	HVC81-3KV-SL12-F9.5-151K	SL	12	4.5	9.5	0.6
55	HVC81-3KV-SL12-F9.5-221K	SL	12	4.5	9.5	0.6
56	HVC81-3KV-SL14-F9.5-331K	SL	14	4.5	9.5	0.6
57	HVC81-3KV-SL17-F9.5-471K	SL	16	4.5	9.5	0.7
58	HVC81-3KV-SL19-F9.5-561K	SL	18	4.5	9.5	0.7
59	HVC81-3KV-X08-F5-101K	X5F	8	4.5	5	0.6
60	HVC81-3KV-DL06-F5-101K	N4700	6	4.5	5	0.6
61	HVC81-3KV-X08-F5-221K	X5F	8	4.5	5	0.6
62	HVC81-3KV-DL06-F5-221K	N4700	6	4.5	5	0.6
63	HVC81-3KV-DL08-F5-271K	N4700	8	4.5	5	0.6
64	HVC81-3KV-DL08-F5-331K	N4700	8	4.5	5	0.6
65	HVC81-3KV-X08-F5-331K	X7R	8	4.5	5	0.6
66	HVC81-3KV-DL08-F5-471K	N4700	8	4.5	5	0.6
67	HVC81-3KV-X08-F5-471K	X7R	8	4.5	5	0.6
68	HVC81-3KV-DL08-F5-561K	N4700	8	4.5	5	0.6
69	HVC81-3KV-X08-F5-561K	X7R	8	4.5	5	0.6
70	HVC81-3KV-X18-F9.5-472K	X7R	18	4.5	9.5	0.6
71	HVC81-3KV-D14-F9.5-472K	Y5T	14	4.5	9.5	0.6
72	HVC81-3KV-E10-F7.5-472M	Y5U	10	4.5	9.5	0.6
73	HVC81-3KV-D20-F9.5-103K	Y5T	20	4.5	9.5	0.8
74	HVC81-3KV-E17-F9.5-103M	Y5U	17	4.5	9.5	0.7
75	HVC81-6KV-N09-F9.5-10PK	NPO	9	6	9.5	0.6
76	HVC81-6KV-UJ08-F9.5-10PK	UJ	8	5	9.5	0.6
77	HVC81-6KV-UJ08-F9.5-22PK	UJ	8	5	9.5	0.6
78	HVC81-6KV-UJ08-F9.5-33PK	UJ	8	5	9.5	0.6
79	HVC81-6KV-UJ09-F9.5-47PK	UJ	9	5	9.5	0.6
80	HVC81-6KV-X09-F9.5-101K	X5F	9	6	9.5	0.6
81	HVC81-6KV-DL06-F5-101K	N4700	6	4	5	0.5
82	HVC81-6KV-X10-F9.5-221K	X5F	10	5	9.5	0.6
83	HVC81-6KV-DL08-F9.5-221K	N4700	8	6	9.5	0.6
84	HVC81-6KV-DL10-F9.5-331K	N4700	10	5	9.5	0.6
85	HVC81-6KV-DL10-F9.5-471K	N4700	10	5	9.5	0.6
86	HVC81-6KV-D12-F9.5-102K	Y5T	12	6	9.5	0.6
87	HVC81-6KV-E08-F9.5-102M	Y5U	8	5	9.5	0.6
88	HVC81-6KV-D14-F9.5-222K	Y5T	14	5	9.5	0.6



## 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
89	HVC81-50KV-SL12-F12.5-22PK	SL	12	10	12.5	0.8
90	HVC81-50KV-SL16-F12.5-50PK	SL	16	10	12.5	0.8
91	HVC-10KV-X09-F9.5-101K	X5F	9	6	9.5	0.65
92	HVC-10KV-DL06-F9.5-101K	N4700	6	6	9.5	0.65
93	HVC-15KV-DL07-F9.5-101K	N4700	7	6.5	9.5	0.65
94	HVC-20KV-DL08-F9.5-101K	N4700	8	8	9.5	0.65
95	HVC-30KV-DL10-F12.5-101K	N4700	10	9	12.5	0.8
96	HVC-50KV-DL12-F12.5-101K	N4700	12	12	12.5	0.8
97	HVC-10KV-DL08-F9.5-151K	N4700	8	6	9.5	0.65
98	HVC-15KV-DL08-F9.5-151K	N4700	8	7	9.5	0.65
99	HVC-20KV-DL10-F9.5-151K	N4700	10	8	9.5	0.65
100	HVC-30KV-DL12-F12.5-151K	N4700	12	9	12.5	0.8
101	HVC-10KV-D08-F9.5-221K	Y5T	8	6.5	9.5	0.65
102	HVC-15KV-D08-F9.5-221K	Y5T	8	7	9.5	0.65
103	HVC-20KV-DL11 -F9.5-221K	N4700	11	8	9.5	0.65
104	HVC-30KV-DL12-F12.5-221K	N4700	12	9	12.5	0.8
105	HVC-10KV-DL10-F9.5-331K	N4700	10	6.5	9.5	0.65
106	HVC-20KV-D09-F9.5-331K	Y5T	9	7.5	9.5	0.65
107	HVC-10KV-DL12-F9.5-471K	N4700	12	6.5	9.5	0.8
108	HVC-15KV-DL14-F9.5-471K	N4700	14	7	9.5	0.8
109	HVC-20KV-D14-F12.5-501K	Y5T	14	9	12.5	0.8
110	HVC-30KV-DL19-F17.5-501K	N4700	19	11	17.5	0.8
111	HVC-40KV-D21-F20-471K	Y5T	21	17	20	1.2
112	HVC-50KV-D23-F20-471K	Y5T	23	18	20	1.2
113	HVC-10KV-D12-F9.5-102K	Y5T	12	6.5	9.5	0.8
114	HVC-10KV-DL16-F12.5-102K	N4700	16	6.5	12.5	0.8
115	HVC-15KV-DL17-F12.5-102K	N4700	17	7	12.5	0.8
116	HVC-20KV-DL21-F12.5-102K	N4700	21	8	12.5	0.8
117	HVC-20KV-D14-F12.5-102K	Y5T	14	7.5	12.5	0.8
118	HVC-20KV-F10-F9.5-102M	Y5V	10	7.5	9.5	0.65
119	HVC-30KV-D19-F17.5-102M	Y5T	19	11	17.5	0.8
120	HVC-40KV-DL32-F20-102K	N4700	32	16	20	1.2
121	HVC-40KV-D27-F20-102M	Y5T	27	16	20	1.2
122	HVC-50KV-DL32-F20-102M	N4700	32	18	20	1.2
123	HVC-50KV-D32-F20-102M	Y5T	32	22	20	1.2
124	HVC-10KV-D17-F12.5-222M	Y5T	17	6.5	12.5	0.8
125	HVC-10KV-E14-F12.5-222M	Y5U	14	7	12.5	0.8
126	HVC-10KV-F11-F9.5-222M	Y5V	11	7	9.5	0.8
127	HVC-15KV-D19-F12.5-222M	Y5T	19	7.5	12.5	0.8
128	HVC-15KV-E16-F12.5-222M	Y5U	16	7.5	12.5	0.8
129	HVC-20KV-D21-F12.5-222M	Y5T	21	8	12.5	0.8
130	HVC-20KV-E17-F12.5-222M	Y5U	17	9	12.5	0.8
131	HVC-30KV-D27-F12.5-222M	Y5T	27	12	20	1.2
132	HVC-30KV-E24-F20-222M	Y5U	24	14	20	1.2
133	HVC-30KV-F19-F17.5-222M	Y5V	19	14	17.5	0.8
134	HVC-40KV-D32-F20-222M	Y5T	32	17	20	1.2
135	HVC-50KV-D40-F20-222M	Y5T	40	22	20	1.2
136	HVC-10KV-D21-F12.5-332M	Y5T	21	7	12.5	0.8
137	HVC-10KV-E16-F12.5-332M	Y5U	16	6.5	12.5	0.8
138	HVC-10KV-F12-F9.5-332M	Y5V	12	6.5	9.5	0.8
139	HVC-15KV-D23-F17.5-332M	Y5T	23	8	17.5	0.8
140	HVC-15KV-E19-F12.5-332M	Y5U	19	8	12.5	0.8
141	HVC-20KV-D27-F20-332M	Y5T	27	9	20	1.2
142	HVC-20KV-E21-F12.5-332M	Y5U	21	9	12.5	0.8
143	HVC-30KV-D32-F20-332M	Y5T	32	12	20	1.2
144	HVC-40KV-D40-F20-332M	Y5T	40	17	20	1.2
145	HVC-50KV-D43-F20-332M	Y5T	43	20	20	1.2
146	HVC-10KV-D27-F20-472M	Y5T	27	8	20	1.2
147	HVC-10KV-E19-F12.5-472M	Y5U	19	7	12.5	0.8
148	HVC-10KV-F16-F12.5-472M	Y5V	16	7	12.5	0.8
149	HVC-15KV-E23-F17.5-472M	Y5U	23	8	17.5	0.8
150	HVC-15KV-F19-F12.5-472M	Y5V	19	9	12.5	0.8
151	HVC-20KV-D32-F20-472M	Y5T	32	10	20	1.2
152	HVC-20KV-E27-F20-472M	Y5U	27	11	20	1.2
153	HVC-20KV-F21-F17.5-472M	Y5V	21	11	17.5	0.8
154	HVC-30KV-D40-F20-502M	Y5T	40	13	20	1.2
155	HVC-30KV-D43-F20-602M	Y5T	43	13	20	1.2
156	HVC-10KV-D40-F20-103M	Y5T	40	8	20	1.2
157	HVC-10KV-E27-F20-103M	Y5U	27	8	20	1.2
158	HVC-10KV-F23-F17.5-103M	Y5V	23	8	17.5	0.8
159	HVC-15KV-E32-F20-103M	Y5U	32	10	20	1.2
160	HVC-15KV-F27-F20-103M	Y5V	27	10	20	1.2
161	HVC-20KV-D43-F20-103M	Y5T	43	11	20	1.2
162	HVC-20KV-F27-F20-103M	Y5V	27	11	20	1.2
163	HVC-30KV-E40-F20-103M	Y5U	40	13	20	1.2
164	HVC-30KV-F32-F20-103M	Y5V	32	13	20	1.2
165	HVC-40KV-F40-F20-103M	Y5V	40	17	20	1.2