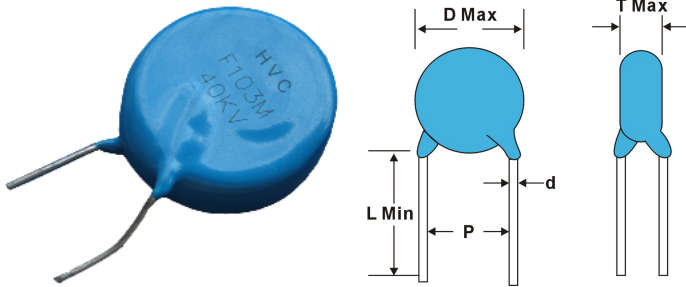


Ceramic Disc Capacitors Class 1 and 2, 1 kV_{DC} to 50 kV_{DC}, General Purpose



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 _{DC}) | 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_{DC}

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: 6X10⁻⁴

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_{DC} to 50 kV_{DC} , 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_{DC} to 50 kV_{DC} , 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 |