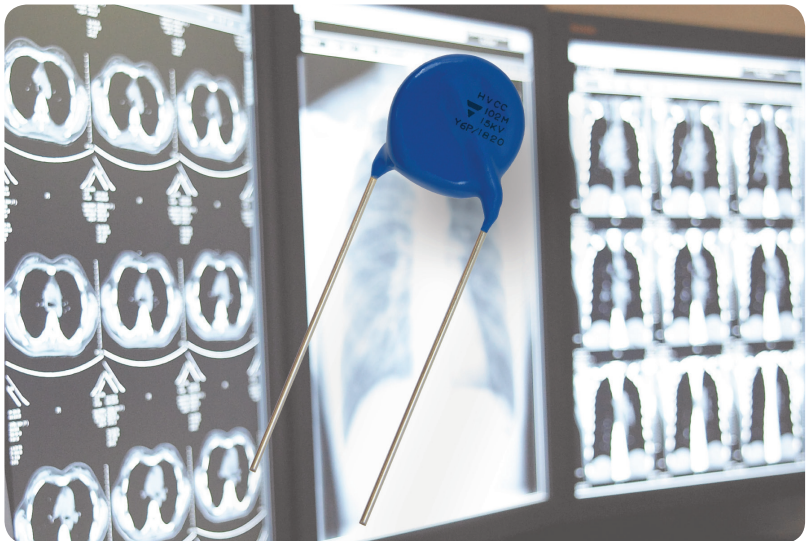
HIGH VOLTAGE CERAMIC DISC CAPACITORS

HVCC Series

High Voltage Ceramic Capacitors
Radial-Leaded Singlelayer DC Disc / AC Disc



KEY BENEFITS

- High capacitance values up to 2 nF in small sizes
- High reliability provided by improved ceramic disc design and optimized coating
- Low losses < 1.5 % due to use of high quality ceramic powder

APPLICATIONS

High voltage power supplies for x-ray sources

- Baggage scanner
- Medical x-ray
- Industrial laser

RESOURCES

- Product page: HVCC Series - www.vishay.com/ppg?23144
- For technical questions contact slcd@vishay.com
- Material categorization: For definitions please see www.vishay.com/doc?99912

Pb e3 RoHS COMPLIANT

A WORLD OF SOLUTIONS™

HIGH VOLTAGE CERAMIC DISC CAPACITORS

HVCC Series

High Voltage Ceramic Capacitors
Radial-Leaded Singlelayer DC Disc / AC Disc

DESIGN SUPPORT TOOLS AVAILABLE

3D Models

QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	2	
Ceramic Dielectric	Y6P	
Temperature Coefficient of Capacitance	± 10 % within -30 °C to +105 °C	
Voltage ($U_{rated, DC}$)	10 000	15 000
Min. Capacitance (pF)	100	100
Max. Capacitance (pF)	2000	2000
Capacitance Tolerance	± 20 %	
Max. Dissipation Factor (%)	1.5	
Min. Insulation Resistance (GΩ)	200	
Operating Temperature (°C)	-30 to +105	
Mounting	Radial	

RATED VOLTAGE

$U_{rated, AC} = U_{rated, DC}/2.8$ at 50 Hz / 60 Hz
$U_{rated, DC}$: 10 000 V → $U_{rated, AC}$: 3500 V
$U_{rated, DC}$: 15 000 V → $U_{rated, AC}$: 5300 V

INSULATION RESISTANCE

Min. 200 000 MΩ at 500 V_{DC} / 60 s max.

TOLERANCE ON CAPACITANCE

± 20 %

DISSIPATION FACTOR

Max. 1.5 %

OPERATING TEMPERATURE RANGE

-30 °C to +105 °C

FEATURES

- Ceramic singlelayer DC disc / AC disc capacitor
- High reliability
- High capacitance values up to 2 nF
- Small sizes
- Low losses
- Radial leads
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb e3 RoHS COMPLIANT

OPTIONS (on request)

- 20 kV rated voltage
- ± 10 % tolerance on nominal C-value
- Customized lead styles

APPLICATIONS

High voltage power supplies for x-ray sources and pulsed lasers

- Baggage scanner
- Medical x-ray
- Industrial laser

DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper clad steel wire having diameters of 0.02" (0.6 mm) and 0.03" (0.8 mm).

The capacitors may be supplied with inline and straight leads having lead spacing of 0.37" (9.5 mm) and 0.49" (12.5 mm).

Coating is made of flame retardant epoxy resin in accordance with “UL 94 V-0”.

CAPACITANCE RANGE

100 pF to 2000 pF

DIELECTRIC STRENGTH BETWEEN LEADS

1.5 x $U_{rated, DC}$ for maximum 60 s

Test voltage: customer re-test 1.35 x $U_{rated, DC}$ for maximum 60 s

Note

- Considered as destructive test in insulation liquid
- Avoid flashover between wires and currents higher than 50 mA

CERAMIC DIELECTRIC

Y6P (± 10 % within -30 °C to +105 °C)

Revision 25-March-2019