SINGLE LAYER CERAMIC DISC CAPACITORS

H Series 500 V (DC) and 1 kV (DC)

Ceramic Disc Capacitor

KEY BENEFITS

- High Capacitance in small size
- Inside kinked leads (preferred)
- WEEE/RoHS compliance, acc. EU directive 2002/95/EC

KEY SPECIFICATIONS

- Capacitance range: 1 nF to 10nF
  Class 2 X7R, at 1 kHz, 1 ± 0.2 V (RMS)
- Dielectric strength: 250% of rated voltage for 500 V;
  200% of rated voltage for 1 kV
- Insulation resistance: ≥ 10000 MΩ
- Acc. IEC 60384-9 and EIA 198
- Operating temperature: - 55 °C to + 125 °C
- Climatic Category: 55/125/21
- Dissipation factor: ≤ 2.5%

APPLICATIONS

- Bypassing
- Coupling
- SMPS

Datasheet is available on our web site at www.vishay.com
for H Series 500 V (DC and 1 kV (DC) - http://www.vishay.com/doc?28540

Ceramic Disc Capacitors
Class 2, 500 V, 1 kV (DC) General Purpose

FEATURES

- High capacitance in small size
- Kinked (preferred) or straight leads.
- Lead (Pb)-free available.

APPLICATIONS

- Bypassing
- Coupling
- Resonant circuit.

DESIGN

The capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper having a diameter of 0.6 mm.

The capacitors have inward kinked leads with a spacing of 5 mm (0.200") or 7.5 mm (0.300") and a lead length from 4 to 30 mm. Encapsulation is made of phenolic resin for 500 V (DC) and epoxy resin for 1 kV (DC).

CAPACITANCE RANGE:

Class 2, at 1 kHz, 1 ± 0.2 V (RMS); 1000 to 10000 pF

RATED DC VOLTAGE:

500 V and 1 kV

DIELECTRIC STRENGTH:

250 % of rated voltage for 500 V (DC)

200 % of rated voltage for 1 kV (DC)

INSULATION RESISTANCE AT 500V (DC):

≥ 10000 MΩ

TOLERANCE ON CAPACITANCE:

± 10 %; ± 20 %

DISSIPATION FACTOR:

Class 2, ≤ 2.5 %

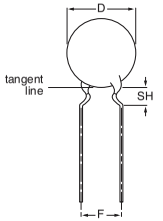
TEMPERATURE COEFFICIENTS:

Class 2 X7R

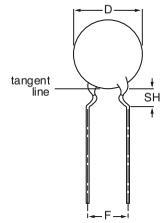
SECTIONAL SPECIFICATIONS:

Class 2 IEC 60 384-9,

EIA 198



Capacitors with 5 mm (0.20") lead spacing.



Capacitors with 7.5 mm (0.30") lead spacing.

CLIMATIC CATEGORY:

Class 2 55/125/21

OPERATING TEMPERATURE RANGE:

Class 2 - 55 to +125 °C

MARKING

Marking indicates capacitance value and tolerance in accordance with *"EIA 198"*.

The capacitors meet the essential requirements of "EIA 198". Unless stated otherwise all electrical values apply at an ambient temperature of 25 ± 3 °C, at normal atmospheric conditions

ORDERING INFORMATION (PREFERRED TYPES), CLASS 2, 500 V (DC), KINKED

C (pF)	TOL. (%)	D_{max} (mm)	LEAD SPACING F (mm)	SH[2] (mm)	CLEAR TEXT CODE 13th DIGIT: T = REEL; U = AMMO; 3 = BULK	PACKAGING CODE 8th AND 9th DIGIT[3] REEL	AMMO	BULK	CATALOG NUMBER[4]
CLASS 2 X7R									
1000	± 10	6.5	5.0	4.0	H102K25X7RL6.J5R	0.6	0.8	10	2282 688 ..021
1500		7.5			H152K29X7RL6.J5R				2282 688 ..121
2200		8.5			H222K33X7RL6.J5R				2282 688 ..221
3300		10.0			H332K39X7RL6.J5R				2282 688 ..321
4700		12.0	7.5		H472K47X7RL6.J7R	-	-	31	2282 688 ..421
10000		16.0			H103K63X7RL6.J7R				2282 688 ..031

Notes

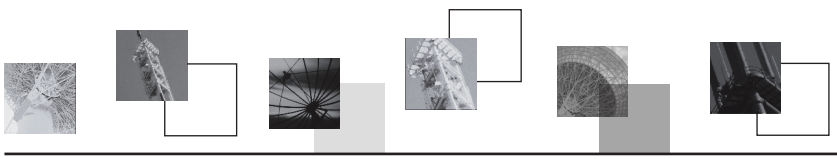
1. Maximum thickness 3.5 mm.
2. SH = seated height.
3. Packaging codes refer to inward kinked leads. Other styles available on request.
4. 8th and 9th digit of the catalog number to be completed with the packaging code.

ORDERING INFORMATION (PREFERRED TYPES), CLASS 2, 1kV (DC), KINKED

C (pF)	TOL. (%)	D_{max} (mm)	LEAD SPACING F (mm)	SH[2] (mm)	CLEAR TEXT CODE 13th DIGIT: T = REEL; U = AMMO; 3 = BULK	PACKAGING CODE 8th AND 9th DIGIT[3] REEL	AMMO	BULK	CATALOG NUMBER[4]
CLASS 2 X7R									
1000	± 10	6.5	5.0	4.0	H102K25X7RN6.J5R	06	08	10	2282 681 ..026
1500		8.0			H152K31X7RN6.J5R				2282 681 ..126
2200		9.0			H222K35X7RN6.J5R				2282 681 ..226
3300		10.5			H332K41X7RN6.J5R				2282 681 ..326
4700		12.0	7.5		H472K47X7RN6.J7R	–	–	31	2282 681 ..426
6800		14.5			H682K57X7RN6.J7R				2282 681 ..626
10000		17.5			H103K69X7RN6.J7R				2282 681 ..036

Notes

1. Maximum thickness 4.0 mm.
2. SH = seated height.
3. Packaging codes refer to inward kinked leads. Other styles available on request.
4. 8th and 9th digit of the catalog number to be completed with the packaging code.



Revision 19-Apr-05