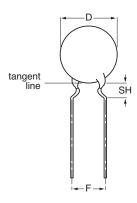
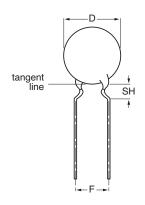


## Vishay BCcomponents

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



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  $\pm$  3 °C, at normal atmospheric conditions.

#### **FEATURES**

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

# (e3)

# ROHS

#### **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  $\pm$  0.2 V (RMS); 1000 to 4700 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 500 V (DC):**

 $\geq$  10 000 M $\Omega$ 

#### **TOLERANCE ON CAPACITANCE:**

± 10 %; ± 20 %

#### **DISSIPATION FACTOR:**

Class 2,  $\leq$  2.5 %

#### **TEMPERATURE COEFFICIENTS:**

Class 2 X7R

#### **SECTIONAL SPECIFICATIONS:**

Class 2 IEC 60 384-9,

**EIA 198** 

# HV X7R 500 V, 1 kV

# Vishay BCcomponents

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



ORDERING INFORMATION (PREFERRED TYPES), CLASS 2, 500 V (DC), KINKED					
С	TOL.	D	LEAD SPACING	SH <sup>(2)</sup>	CLEAR TEXT CODE
(pF)			13 <sup>th</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK		
CLASS 2 X7R					
1000		6.5			H102K25X7RL6.J5R
1500		7.5	5.0		H152K29X7RL6.J5R
2200	± 10	8.5	5.0	4.0	H222K33X7RL6.J5R
3300		10.0			H332K39X7RL6.J5R
4700		12.0	7.5		H472K47X7RL6.J7R

#### **Notes**

- 1. Maximum thickness 3.5 mm.
- 2. SH = seated height.
- 3. Lead style codes refer to inward kinked leads. Other styles available on request.

ORDERING INFORMATION (PREFERRED TYPES), CLASS 2, 1kV (DC), KINKED						
C (pF)	TOL. (%)	D <sub>max</sub> (mm) LEAD SPAC	LEAD SPACING	SH <sup>(2)</sup> (mm)	CLEAR TEXT CODE	
			F (mm)		13 <sup>th</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK	
CLASS 2 X7R						
1000	6.5 8.0 9.0 10.5 12.0	6.5	5.0	4.0	H102K25X7RN6.J5R	
1500		8.0			H152K31X7RN6.J5R	
2200		9.0			H222K35X7RN6.J5R	
3300		10.5			H332K41X7RN6.J5R	
4700		7.5	ļ	H472K47X7RN6.J7R		

#### Notes

- 1. Maximum thickness 4.0 mm.
- 2. SH = seated height.
- 3. Lead style codes refer to inward kinked leads. Other styles available on request.

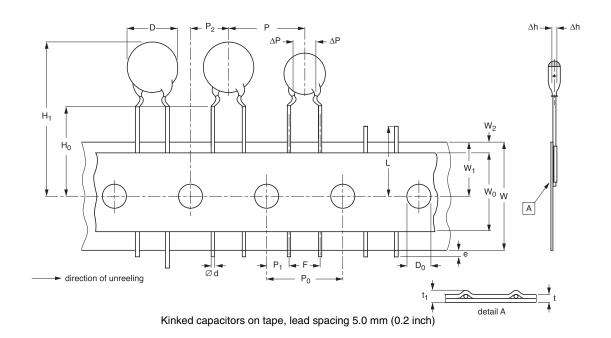
PACKAGING					
D <sub>max</sub>	CIZE CODE		PACKAGING QUANTITIES		
mm	SIZE CODE	BULK	REEL	AMMO	
6.5 (0.25")	25				
7.5 (0.29")	29				
8.5 (0.33")	33	1000 2000	2000	2000	
10.0 (0.39")	39				
11.0 (0.43")	43				
12.0 (0.47")	47				
13.5 (0.53")	53				
15.0 (0.59")	59	500	-	-	
17.5 (0.69")	69				

#### Note

1. The capacitors are supplied in bulk packaging (cardboard boxes), in tape on reel or in ammopack



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



DIMENSIONS OF TAPE  DIMENSIONS (mm)					
SYMBOL	PARAMETER	NOMINAL	TOLERANCE		
D	body diameter	12.0 maximum	-		
d	lead diameter	0.6	± 0.05		
Р	pitch between capacitors	12.7	± 1.0		
P <sub>0</sub>	feed-hole pitch	12.7	± 0.3; note 1		
ΔΡ	plane deviation	1.0 maximum	-		
P <sub>1</sub>	feed-hole centre to lead centre	3.85	± 0.7; note 2		
P <sub>2</sub>	feed-hole centre to component centre	6.35	± 1.3; note 2		
F	lead spacing	5.0	+ 0.6/- 0.4		
Δh	component alignment	0	± 1.0		
W	tape width	18.0	+ 1.0/- 0.5		
W <sub>0</sub>	hold-down tape width	5.0 minimum	-		
W <sub>1</sub>	hole position	9.0	+ 0.75/- 0.5		
W <sub>2</sub>	hold-down tape margin	3.0 maximum	-		
H <sub>0</sub>	height to seating plane	16.0	± 0.5		
H <sub>1</sub>	maximum component height	32.0	-		
е	lead end protrusion	1.0 maximum	-		
L	maximum length of snipped lead	11.0	-		
D <sub>0</sub>	feed-hole diameter	4.0	± 0.2		
t	total tape thickness	0.9 maximum	=		
t <sub>1</sub>	maximum thickness of tape and wires	1.5 maximum	-		

#### Notes

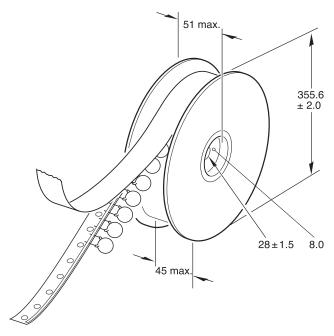
- 1. Cumulative pitch error:  $\pm \le 1$  mm/20 pitches.
- 2. Obliquity maximum 3°.

# Vishay BCcomponents

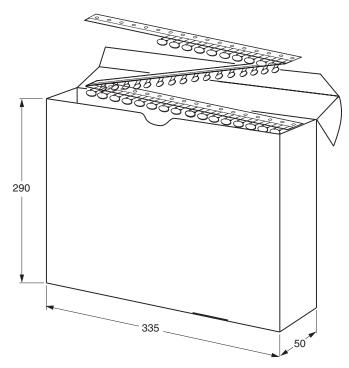
Ceramic Disc Capacitors Class 2, 500 V, 1 kV (DC) General Purpose



#### **REEL AND TAPE DATA** in millimeters



Reel with capacitors on tape



Ammopack with capacitors on tape



Vishay

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