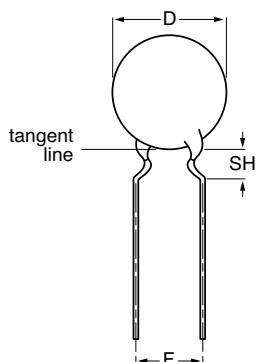


Ceramic Disc Capacitors Class 1, 500 V (DC) Narrow Tolerance



Capacitors with 5 mm (0.20") lead spacing

FEATURES

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



RoHS
COMPLIANT

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") and a lead length from 4 to 30 mm. Encapsulation is made of phenolic resin.

TEMPERATURE COEFFICIENTS:

Class 1 NP0; P100; N150; N750

SECTIONAL SPECIFICATIONS:

Class 1 IEC 60 384-8,
EIA 198

CLIMATIC CATEGORY:

Class 1 55/125/21

OPERATING TEMPERATURE RANGE:

Class 1 - 55 to + 125 °C

MARKING

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

CAPACITANCE RANGE:

Class 1, at 1 MHz, 1.2 V (RMS); 1.0 pF to 330 pF
1 kHz, 1 ± 0.2 V (RMS) for capacitance values higher than 1000 pF

RATED DC VOLTAGE:

500 V

DIELECTRIC STRENGTH:

250 % of rated voltage

INSULATION RESISTANCE AT 500 V (DC):

$\geq 10\,000\text{ M}\Omega$

TOLERANCE ON CAPACITANCE:

$\pm 0.25\text{ pF}$; $\pm 2\%$

DISSIPATION FACTOR:

Class 1, $C \leq 30\text{ pF}$; $\leq 20 \times (10/C + 0.7) \times 10^{-4}$ maximum

Class 1, $C > 30\text{ pF}$; $\leq 0.2\%$

The capacitors meet the essential requirements of "EIA 198". Unless stated otherwise all electrical values apply at an ambient temperature of $25 \pm 3\text{ }^{\circ}\text{C}$, at normal atmospheric conditions.



HV 500 V Narrow Tolerance

Ceramic Disc Capacitors
Class 1, 500 V (DC) Narrow Tolerance

Vishay BCcomponents

ORDERING INFORMATION, CLASS 1, 500 V (DC), KINKED					
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE
					13 th DIGIT: T = REEL; U = AMMO; 3 = BULK
					16 th DIGIT: R = RoHS COMPLIANT
CLASS 1 P100					
1.5	± 0.25 pF	5.0	5.0	4.0	D159C20M7GL6.J5.
2.2					D229C20M7GL6.J5.
3.3					D339C20M7GL6.J5.
4.7					D479C20M7GL6.J5.
6.8	± 2 %	6.5			D689C25M7GL6.J5.
10		7.5			D100G29M7GL6.J5.
15		8.5			D150G33M7GL6.J5.
22		10.0			D220G39M7GL6.J5.
33		12.0			D330G47M7GL6.J5.
CLASS 1 NP0					
1.0	± 0.25 pF	5.0	5.0	4.0	D109C20C0KL6.J5.
1.5					D159C20C0KL6.J5.
2.2					D229C20C0JL6.J5.
3.3					D339C20C0JL6.J5.
4.7					D479C20C0HL6.J5.
6.8					D689C20C0HL6.J5.
10	± 2 %	6.5			D100G20C0GL6.J5.
15					D150G20C0GL6.J5.
22					D220G25C0GL6.J5.
33					D330G25C0GL6.J5.
47					D470G29C0GL6.J5.
68					D680G33C0GL6.J5.
100					D101G39C0GL6.J5.
150					D151G47C0GL6.J5.
CLASS 1 N150					
2.2	± 0.25 pF	5.0	5.0	4.0	D229C20P2JL6.J5.
3.3					D339C20P2JL6.J5.
4.7					D479C20P2HL6.J5.
6.8					D689C20P2HL6.J5.
10	± 2 %	6.5			D100G20P2GL6.J5.
15					D150G20P2GL6.J5.
22					D220G25P2GL6.J5.
33					D330G25P2GL6.J5.
47					D470G29P2GL6.J5.
68					D680G33P2GL6.J5.
100					D101G43P2GL6.J5.

HV 500 V Narrow Tolerance

Vishay BCcomponents

Ceramic Disc Capacitors
Class 1, 500 V (DC) Narrow Tolerance



ORDERING INFORMATION, CLASS 1, 500 V (DC), KINKED					
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE
					13 th DIGIT: T = REEL; U = AMMO; 3 = BULK
					16 th DIGIT: R = RoHS COMPLIANT
CLASS 1 N750					
6.8	± 0.25	5.0	5.0	4.0	D689C20U2JL6.J5.
10	± 2 %				D100G20U2JL6.J5.
15					D150G20U2JL6.J5.
22					D220G20U2JL6.J5.
33		D330G25U2JL6.J5.			
47		D470G29U2JL6.J5.			
68		D680G33U2JL6.J5.			
100		D101G39U2JL6.J5.			
150		D151G47U2JL6.J5.			

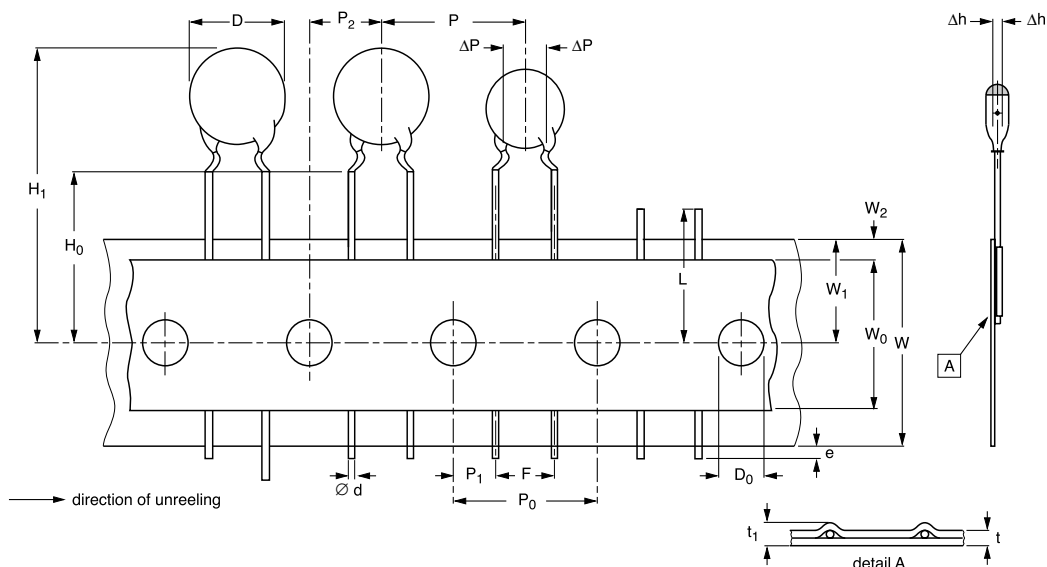
Notes

- Maximum thickness 4.0 mm.
- SH = seated height.
- Lead style codes refer to inward kinked leads. Other styles available on request.
- Other capacitance values E12 series available.

PACKAGING				
D _{max} (mm)	SIZE CODE	PACKAGING QUANTITIES		
		BULK	REEL	AMMO
5.0 (0.20")	20	1000	2000	2000
6.5 (0.25")	25			
7.5 (0.29")	29			
8.5 (0.33")	33			
10.0 (0.39")	39			
11.0 (0.43")	43			
12.0 (0.47")	47			

Note

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



Kinked capacitors on tape, lead spacing 5.0 mm (0.2")

DIMENSIONS OF TAPE

SYMBOL	PARAMETER	DIMENSIONS (mm)	
		NOMINAL	TOLERANCE
D	body diameter	11.0 maximum	-
d	lead diameter	0.6	± 0.05
P	pitch between capacitors	12.7	± 1.0
P ₀	feed-hole pitch	12.7	± 0.3; note 1
ΔP	plane deviation	1.0 maximum	-
P ₁	feed-hole centre to lead centre	3.85	± 0.7; note 2
P ₂	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 ₀	hold-down tape width	5.0 minimum	-
W ₁	hole position	9.0	+ 0.75 - 0.5
W ₂	hold-down tape margin	3.0 maximum	-
H ₀	height to seating plane	16.0	± 0.5
H ₁	maximum component height	32.0	-
e	lead end protrusion	1.0 maximum	-
L	maximum length of snapped lead	11.0	-
D ₀	feed-hole diameter	4.0	± 0.2
t	total tape thickness	0.9 maximum	-
t ₁	maximum thickness of tape and wires	1.5 maximum	-

Notes

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

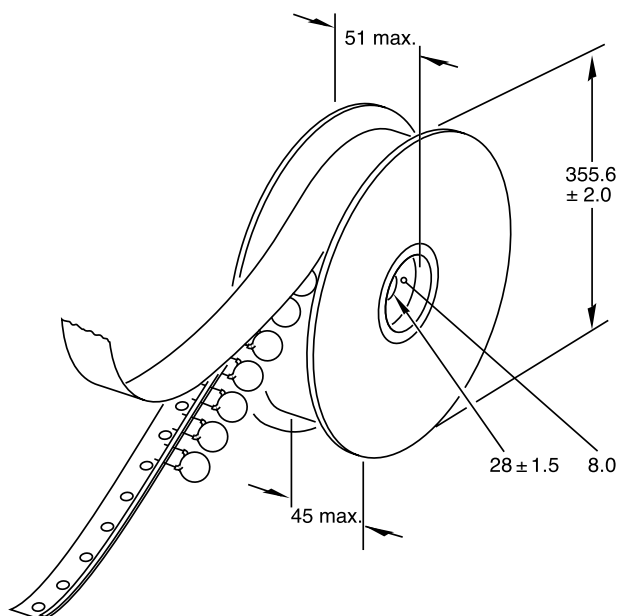
HV 500 V Narrow Tolerance

Vishay BCcomponents

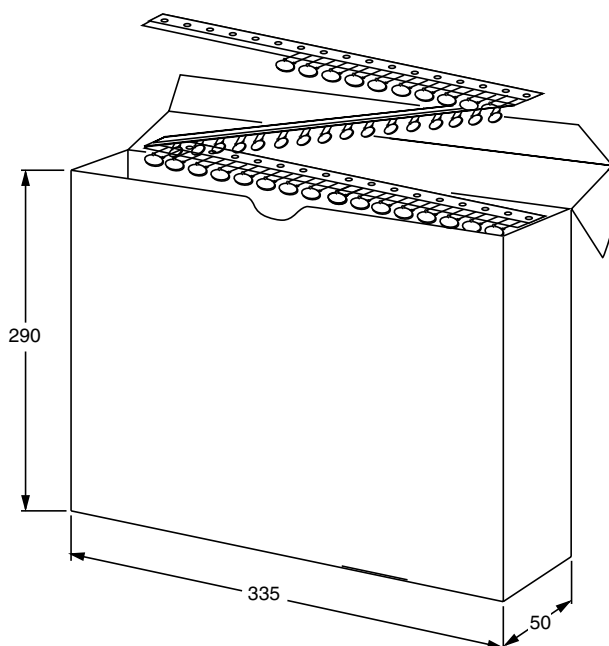
Ceramic Disc Capacitors
Class 1, 500 V (DC) Narrow Tolerance



REEL AND TAPE DATA in millimeters



Reel with capacitors on tape



Ammopack with capacitors on tape



Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.