



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

FEATURES

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

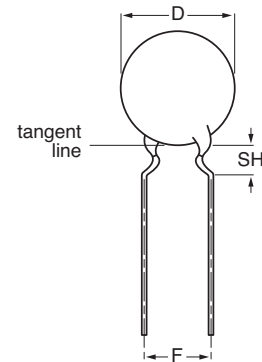
APPLICATIONS

- 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.



Capacitors with 5 mm (0.20") lead spacing.

CAPACITANCE RANGE:

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

RATED DC VOLTAGE:

500 V

DIELECTRIC STRENGTH:

250 % of rated voltage

INSULATION RESISTANCE AT 500V (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, $C > 30\text{ pF}$; $\leq 20 \times 10^{-4}$

TEMPERATURE COEFFICIENTS:

Class 1 NP0; P100; N150; N750; N1500

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".

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

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ORDERING INFORMATION, CLASS 1, 500 V (DC), KINKED											
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE	PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾			CATALOG NUMBER ⁽⁴⁾		
					13 th DIGIT: T = REEL; U = AMMO; 3 = BULK	REEL	AMMO	BULK			
CLASS 1 P100											
1.5	± 0.25	5.0	5.0	4.0	D159C20M7GL6.J5	06	08	10	2252 598 ..144		
2.2					D229C20M7GL6.J5				2252 598 ..244		
3.3					D339C20M7GL6.J5				2252 598 ..344		
4.7					D479C20M7GL6.J5				2252 598 ..444		
6.8	± 2 %	6.5			D689C25M7GL6.J5				2252 598 ..644		
10		7.5			D100G29M7GL6.J5				2252 598 ..004		
15		8.5			D150G33M7GL6.J5				2252 598 ..104		
22		10.0			D220G39M7GL6.J5				2252 598 ..204		
33		12.0			D330G47M7GL6.J5				2252 598 ..304		
CLASS 1 NP0											
1.0	± 0.25	5.0	5.0	4.0	D109C20C0KL6.J5	06	08	10	2252 508 ..044		
1.5					D159C20C0KL6.J5				2252 508 ..144		
2.2					D229C20C0JL6.J5				2252 508 ..244		
3.3					D339C20C0JL6.J5				2252 508 ..344		
4.7					D479C20C0HL6.J5				2252 508 ..444		
6.8					D689C20C0HL6.J5				2252 508 ..644		
10	± 2 %	6.5			D100G20C0GL6.J5				2252 508 ..004		
15					D150G20C0GL6.J5				2252 508 ..104		
22					D220G25C0GL6.J5				2252 508 ..204		
33					D330G25C0GL6.J5				2252 508 ..304		
47					D470G29C0GL6.J5				2252 508 ..404		
68					D680G33C0GL6.J5				2252 508 ..604		
100					D101G39C0GL6.J5				2252 508 ..014		
150					D151G47C0GL6.J5				2252 508 ..114		
CLASS 1 N150											
2.2			± 0.25	5.0	5.0	4.0	D229C20P2JL6.J5	06	08	10	2252 518 ..244
3.3	D339C20P2JL6.J5	2252 518 ..344									
4.7	D479C20P2HL6.J5	2252 518 ..444									
6.8	D689C20P2HL6.J5	2252 518 ..644									
10	± 2 %	6.5	D100G20P2GL6.J5	2252 518 ..004							
15			D150G20P2GL6.J5	2252 518 ..104							
22			D220G25P2GL6.J5	2252 518 ..204							
33			D330G25P2GL6.J5	2252 518 ..304							
47			D470G29P2GL6.J5	2252 518 ..404							
68			D680G33P2GL6.J5	2252 518 ..604							
100			D101G43P2GL6.J5	2252 518 ..014							



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C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE	PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾			CATALOG NUMBER ⁽⁴⁾
					13 th DIGIT: T = REEL; U = AMMO; 3 = BULK	REEL	AMMO	BULK	
CLASS 1 N750									
6.8	± 0.25	5.0	5.0	4.0	D689C20U2JL6.J5	06	08	10	2252 558 ..644
10	± 2 %				D100G20U2JL6.J5				2252 558 ..004
15					D150G20U2JL6.J5				2252 558 ..104
22					D220G20U2JL6.J5				2252 558 ..204
33		6.5			D330G25U2JL6.J5				2252 558 ..304
47		7.5			D470G29U2JL6.J5				2252 558 ..404
68		8.5			D680G33U2JL6.J5				2252 558 ..604
100		10.0			D101G39U2JL6.J5				2252 558 ..014
150		12.0			D151G47U2JL6.J5				2252 558 ..114
CLASS 1 N1500									
8.2	± 0.25 pF	5.0	5.0	4.0	D829C20P3KL6.J5	06	08	10	2252 588 ..844
10	± 2 %				D100G20P3KL6.J5				2252 588 ..004
15					D150G20P3KL6.J5				2252 588 ..104
22					D220G20P3KL6.J5				2252 588 ..204
33		D330G20P3KL6.J5			2252 588 ..304				
47		D470G20P3KL6.J5			2252 588 ..404				
68		6.5			D680G25P3KL6.J5				2252 588 ..604
100		7.5			D101G29P3KL6.J5				2252 588 ..014
150		8.5			D151G33P3KL6.J5				2252 588 ..114
220	10.0	D221G39P3KL6.J5			2252 588 ..214				
330	12.0	D331G47P3KL6.J5			2252 588 ..314				

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.
5. 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			

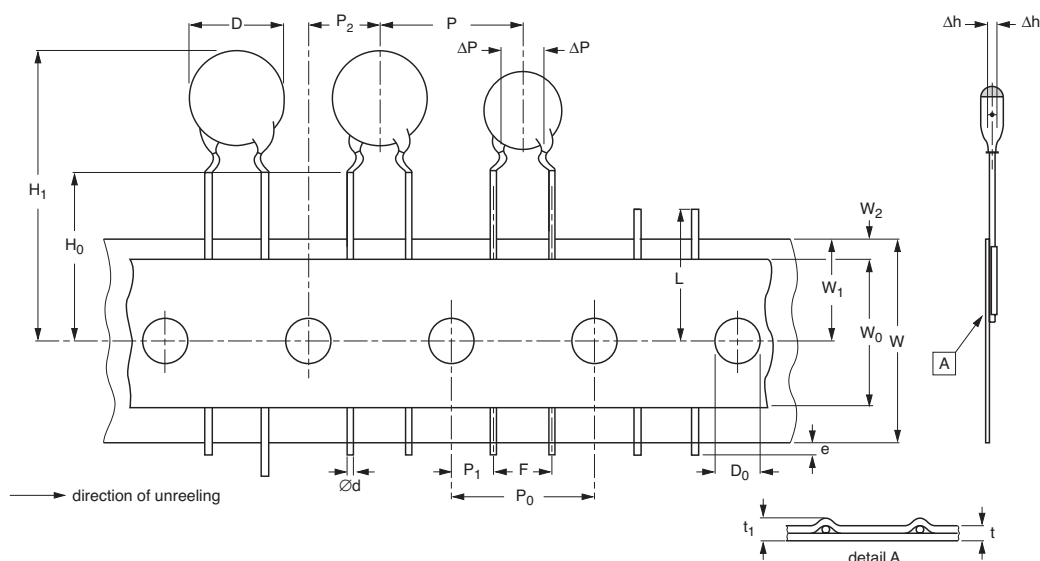
Note

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

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

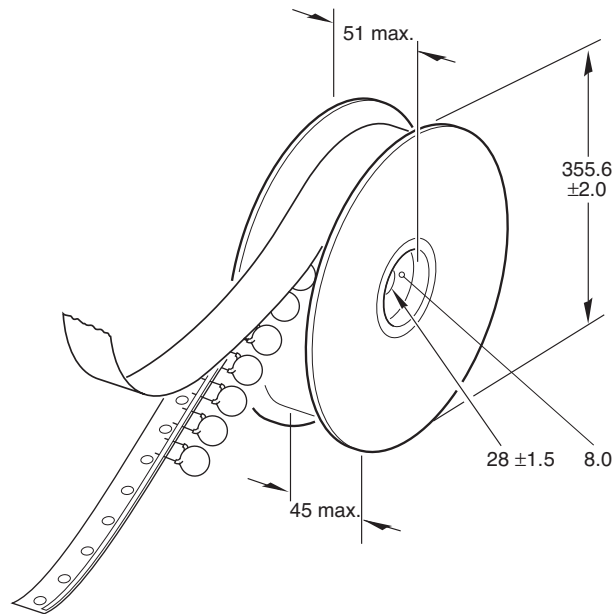
DIMENSIONS OF TAPE			
SYMBOL	PARAMETER	DIMENSIONS (mm)	
		NOMINAL	TOLERANCE
D	body diameter	11.0 maximum	-
d	lead diameter	0.6	± 0.05
P	pitch between capacitors	12.7	± 1.0
P ₀	feed-hole pitch	12.7	± 0.3; note 1
ΔP	plane deviation	1.0 maximum	-
P ₁	feed-hole centre to lead centre	3.85	± 0.7; note 2
P 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
Δs	deviation along tape, left or right	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

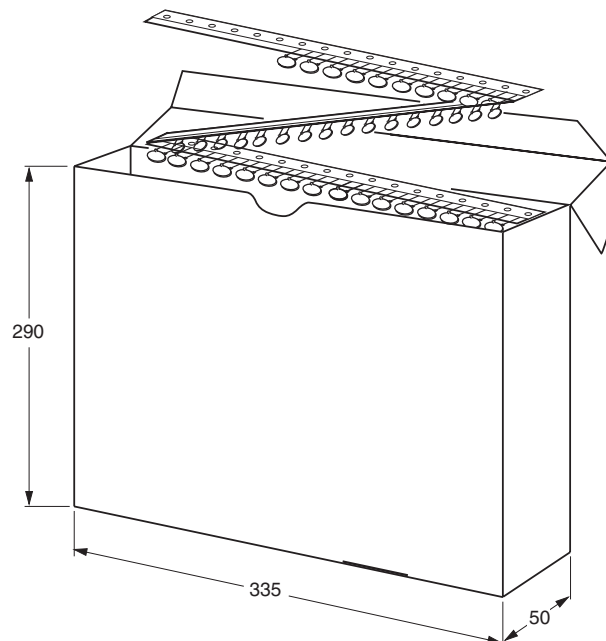
1. Cumulative pitch error: $\pm \leq 1$ mm /20 pitches.
2. Obliquity maximum 3°.



REEL AND TAPE DATA in millimeters



Reel with capacitors on tape.



Ammopack with capacitors on tape.