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

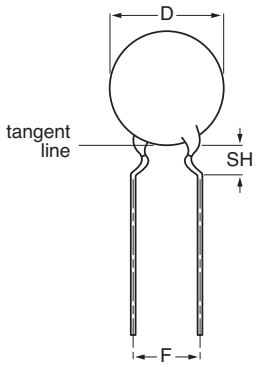
APPLICATIONS

- 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 ± 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):

≥ 10 000 MΩ

TOLERANCE ON CAPACITANCE:

± 0.25 pF; ± 2 %

DISSIPATION FACTOR:

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

Class 1, $C > 30$ 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 ± 3 °C, at normal atmospheric conditions

ORDERING INFORMATION, CLASS 1, 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 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		6.5			D689C25M7GL6.J5				2252 598 ..644
10	± 2 %	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 %				D100G20C0GL6.J5				2252 508 ..004
15					D150G20C0GL6.J5				2252 508 ..104
22		6.5			D220G25C0GL6.J5				2252 508 ..204
33					D330G25C0GL6.J5				2252 508 ..304
47		7.5			D470G29C0GL6.J5				2252 508 ..404
68		8.5			D680G33C0GL6.J5				2252 508 ..604
100		10.0			D101G39C0GL6.J5				2252 508 ..014
150		12.0			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 %				D100G20P2GL6.J5				2252 518 ..004
15					D150G20P2GL6.J5				2252 518 ..104
22		6.5			D220G25P2GL6.J5				2252 518 ..204
33					D330G25P2GL6.J5				2252 518 ..304
47		7.5			D470G29P2GL6.J5				2252 518 ..404
68		8.5			D680G33P2GL6.J5				2252 518 ..604
100		11.0			D101G43P2GL6.J5				2252 518 ..014

ORDERING INFORMATION, CLASS 1, 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 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

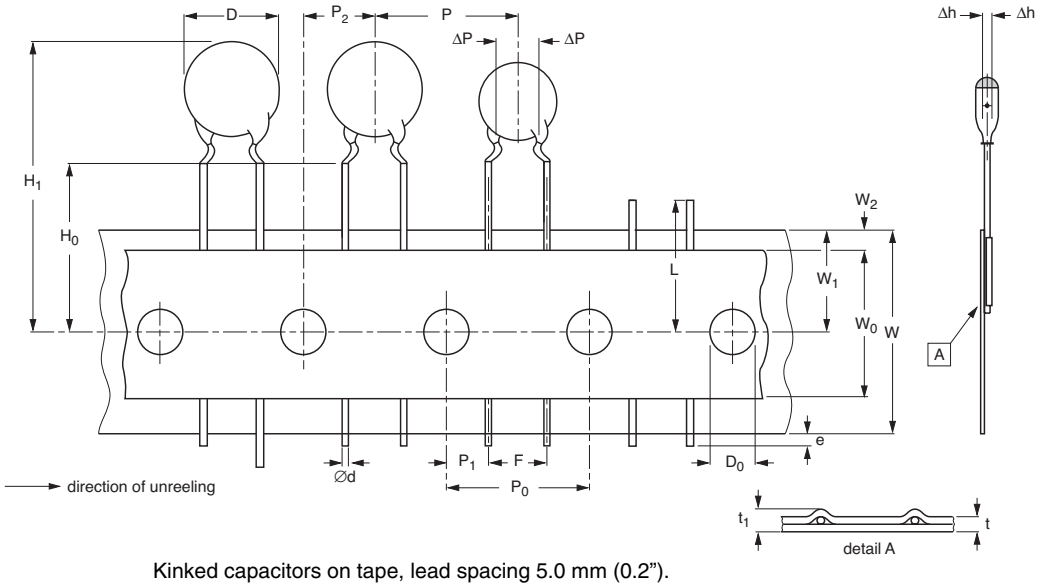
1. Maximum thickness 4.0 mm.
2. SH = seated height.
3. Packaging codes refer to inward kinked leads. Other styles available on request.
4. 8th and 9th digit of the catalog number to be completed with the packaging code.
5. Other capacitance values E12 series available

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.



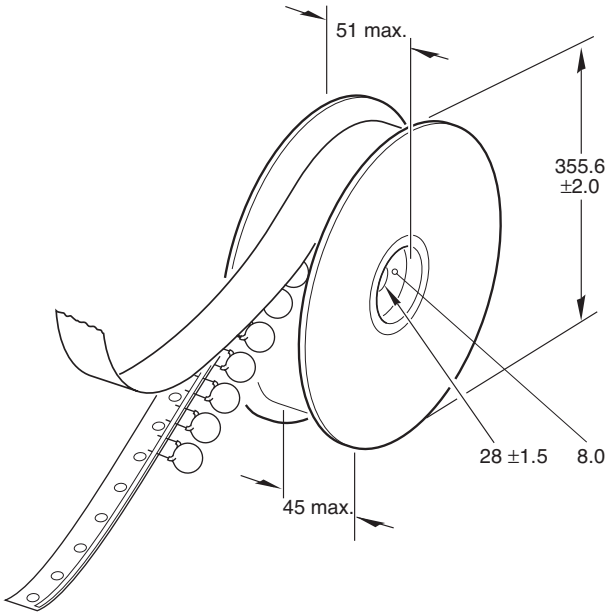
Kinked capacitors on tape, lead spacing 5.0 mm (0.2").

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 snipped 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	–

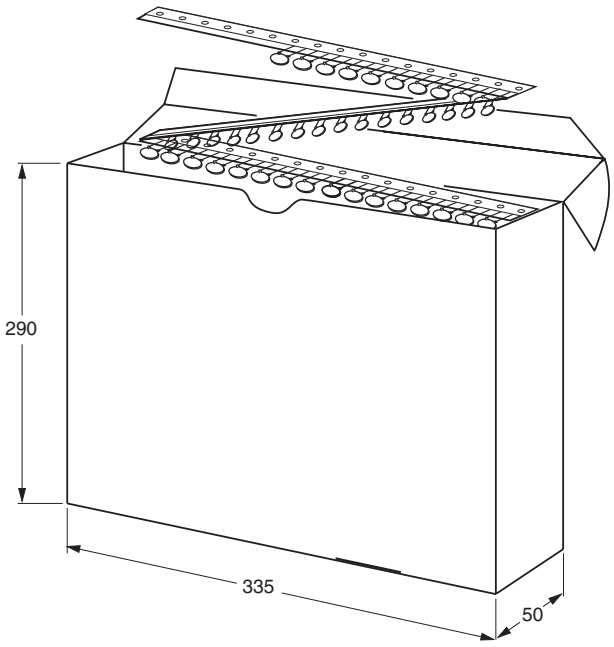
Notes

1. Cumulative pitch error: ± ≤ 1 mm /20 pitches.
2. Obliquity maximum 3°.

REEL AND TAPE DATA in millimeters



Reel with capacitors on tape.



Ammopack with capacitors on tape.