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
- Lead (Pb)-free available

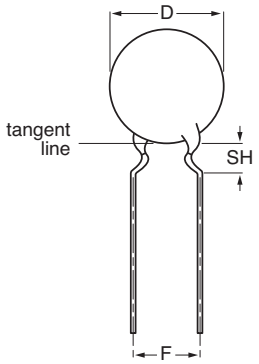
APPLICATIONS

- 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") 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 ≤ 30 pF; ≤ 20 x (10/C + 0.7) x 10^{-4} maximum

Class 1, C > 30 pF; ≤ 20 x 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 16th DIGIT: R = RoHS COMPLIANT	PACKAGING CODE 8th AND 9th DIGIT[3] REEL	AMMO	BULK	CATALOG NUMBER[4] 3rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT
CLASS 1 P100									
1.5	± 0.25	5.0	5.0	4.0	D159C20M7GL6.J5.	06	08	10	22.2 598 ..144
2.2					D229C20M7GL6.J5.				22.2 598 ..244
3.3					D339C20M7GL6.J5.				22.2 598 ..344
4.7					D479C20M7GL6.J5.				22.2 598 ..444
6.8		6.5			D689C25M7GL6.J5.				22.2 598 ..644
10	± 2 %	7.5			D100G29M7GL6.J5.				22.2 598 ..004
15		8.5			D150G33M7GL6.J5.				22.2 598 ..104
22		10.0			D220G39M7GL6.J5.				22.2 598 ..204
33		12.0			D330G47M7GL6.J5.				22.2 598 ..304
CLASS 1 NP0									
1.0	± 0.25	5.0	5.0	4.0	D109C20C0KL6.J5.	06	08	10	22.2 508 ..044
1.5					D159C20C0KL6.J5.				22.2 508 ..144
2.2					D229C20C0JL6.J5.				22.2 508 ..244
3.3					D339C20C0JL6.J5.				22.2 508 ..344
4.7					D479C20C0HL6.J5.				22.2 508 ..444
6.8					D689C20C0HL6.J5.				22.2 508 ..644
10	± 2 %				D100G20C0GL6.J5.				22.2 508 ..004
15					D150G20C0GL6.J5.				22.2 508 ..104
22		6.5			D220G25C0GL6.J5.				22.2 508 ..204
33					D330G25C0GL6.J5.				22.2 508 ..304
47		7.5			D470G29C0GL6.J5.				22.2 508 ..404
68		8.5			D680G33C0GL6.J5.				22.2 508 ..604
100		10.0			D101G39C0GL6.J5.				22.2 508 ..014
150		12.0			D151G47C0GL6.J5.				22.2 508 ..114
CLASS 1 N150									
2.2	± 0.25	5.0	5.0	4.0	D229C20P2JL6.J5.	06	08	10	22.2 518 ..244
3.3					D339C20P2JL6.J5.				22.2 518 ..344
4.7					D479C20P2HL6.J5.				22.2 518 ..444
6.8					D689C20P2HL6.J5.				22.2 518 ..644
10	± 2 %				D100G20P2GL6.J5.				22.2 518 ..004
15					D150G20P2GL6.J5.				22.2 518 ..104
22		6.5			D220G25P2GL6.J5.				22.2 518 ..204
33					D330G25P2GL6.J5.				22.2 518 ..304
47		7.5			D470G29P2GL6.J5.				22.2 518 ..404
68		8.5			D680G33P2GL6.J5.				22.2 518 ..604
100		11.0			D101G43P2GL6.J5.				22.2 518 ..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; 16th DIGIT: R = RoHS COMPLIANT	PACKAGING CODE 8th AND 9th DIGIT[3]: REEL	AMMO	BULK	CATALOG NUMBER[4] 3rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT
CLASS 1 N750									
6.8	± 0.25	5.0	5.0	4.0	D689C20U2JL6.J5.	06	08	10	22.2 558 ..644
10	± 2 %				D100G20U2JL6.J5.				22.2 558 ..004
15					D150G20U2JL6.J5.				22.2 558 ..104
22					D220G20U2JL6.J5.				22.2 558 ..204
33		6.5			D330G25U2JL6.J5.				22.2 558 ..304
47		7.5			D470G29U2JL6.J5.				22.2 558 ..404
68		8.5			D680G33U2JL6.J5.				22.2 558 ..604
100		10.0			D101G39U2JL6.J5.				22.2 558 ..014
150		12.0			D151G47U2JL6.J5.				22.2 558 ..114
CLASS 1 N1500									
8.2	± 0.25 pF	5.0	5.0	4.0	D829C20P3KL6.J5.	06	08	10	22.2 588 ..844
10	± 2 %				D100G20P3KL6.J5.				22.2 588 ..004
15					D150G20P3KL6.J5.				22.2 588 ..104
22					D220G20P3KL6.J5.				22.2 588 ..204
33					D330G20P3KL6.J5.				22.2 588 ..304
47					D470G20P3KL6.J5.				22.2 588 ..404
68		6.5			D680G25P3KL6.J5.				22.2 588 ..604
100		7.5			D101G29P3KL6.J5.				22.2 588 ..014
150		8.5			D151G33P3KL6.J5.				22.2 588 ..114
220		10.0			D221G39P3KL6.J5.				22.2 588 ..214
330		12.0			D331G47P3KL6.J5.				22.2 588 ..314

Notes

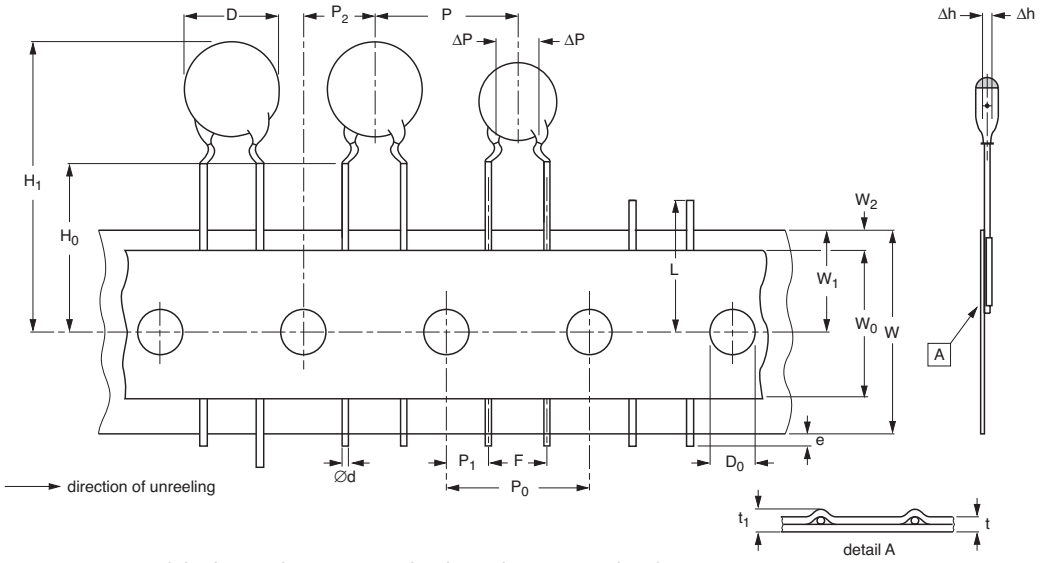
1. Maximum thickness 4.0 mm.
2. SH = seated height.
3. Packaging codes refer to inward kinked leads. Other styles available on request.
4. 3rd digit to complete RoHS catalog number. 8th and 9th digit of the catalog number to be completed with the packaging code.
5. Other capacitance values E12 series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



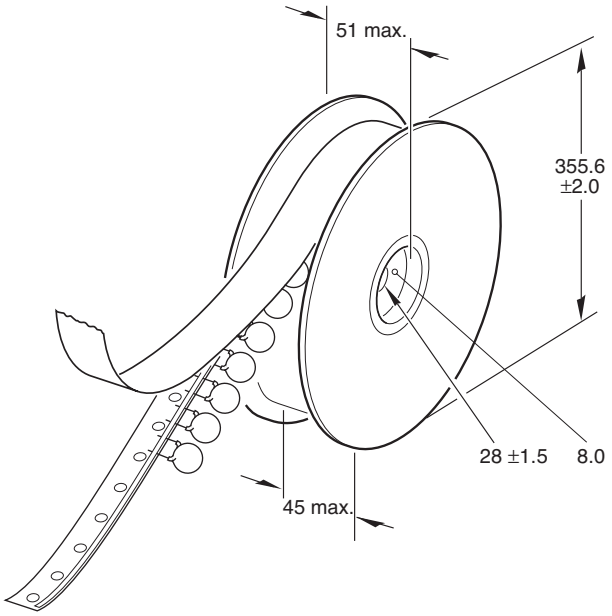
Kinked capacitors on tape, lead spacing 5.0 mm (0.2").

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	–

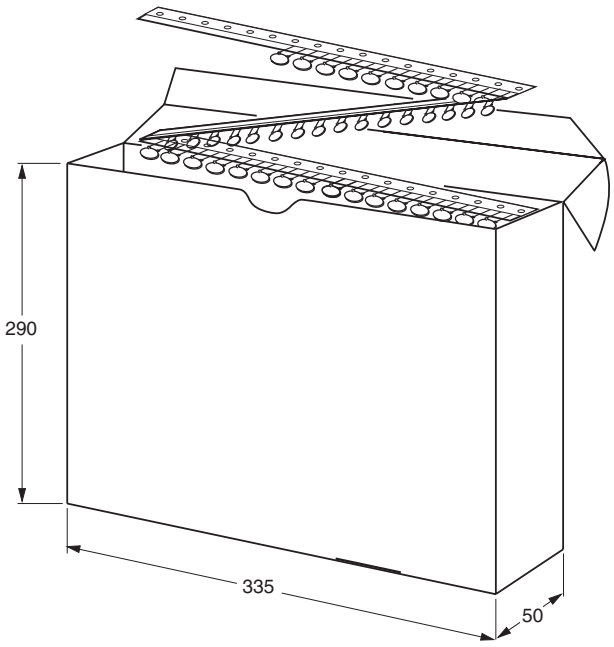
Notes

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.

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