

## 阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

## Ceramic Disc Capacitors

### Class 1 and 2, 100 V (DC) General Purpose

#### FEATURES

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



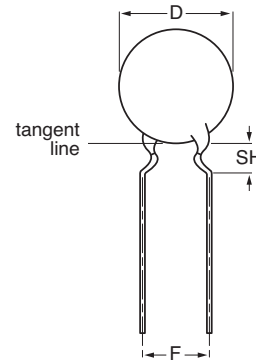
#### APPLICATIONS

- 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 (0.200") lead spacing.

#### CAPACITANCE RANGE:

Class 1, at 1 MHz, 1.2 V (RMS); 1.0 to 100 pF  
1 kHz,  $1 \pm 0.2V$  (RMS) for capacitance values higher than 1000 pF.

Class 2, at 1 kHz,  $1 \pm 0.2 V$  (RMS); 150 to 47000 pF

#### RATED DC VOLTAGE:

100 V

#### DIELECTRIC STRENGTH:

250 % of rated voltage

#### INSULATION RESISTANCE AT 100V (DC):

$\geq 10000 M\Omega$

#### TOLERANCE ON CAPACITANCE:

$\pm 0.25 pF$ ;  $\pm 0.5 pF$ ;  $\pm 5 \%$ ;  $\pm 10 \%$ ;  $\pm 20 \%$ ;  $+ 80 / - 20 \%$

#### DISSIPATION FACTOR:

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

Class 1,  $C > 30 pF$ ;  $\leq 20 \times 10^{-4}$

Class 2,  $\leq 3.0 \%$

#### TEMPERATURE COEFFICIENTS:

Class 1 NP0; SL0

Class 2 Y5P; Z5U; Y5V; Z5V

#### SECTIONAL SPECIFICATIONS:

Class 1 IEC 60 384-8,

Class 2 IEC 60 384-9,

EIA 198

#### CLIMATIC CATEGORY:

Class 1 55/125/21

Class 2 10/85/21 and 30/85/21

#### OPERATING TEMPERATURE RANGE:

Class 1 - 55 to + 125 °C

Class 2 - 30 to + 85 °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



Ceramic Disc Capacitors  
Class 1 and 2, 100 V (DC) General Purpose

<b>ORDERING INFORMATION, CLASS 1, 100 V (DC), KINKED</b>											
C (pF)	TOL. (%)	D <sub>max</sub> (mm)	LEAD SPACING F (mm)	SH <sup>(2)</sup> (mm)	CLEAR TEXT CODE			PACKAGING CODE 8 <sup>th</sup> AND 9 <sup>th</sup> DIGIT <sup>(3)</sup>			CATALOG NUMBER <sup>(4)</sup> 3 <sup>rd</sup> DIGIT: 5 = STANDARD 8 = RoHS COMPLIANT
					13 <sup>th</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK 16 <sup>th</sup> DIGIT: R = RoHS COMPLIANT	REEL	AMMO	BULK			
<b>CLASS 1 NP0</b>											
1.0	± 0.25 pF	5.0	5.0	4.0	D109C20C0KH6.J5.			06	08	10	22.2 506 ..044
1.5					D159C20C0KH6.J5.						22.2 506 ..144
2.2					D229C20C0KH6.J5.						22.2 506 ..244
3.3					D339C20C0KH6.J5.						22.2 506 ..344
4.7					D479C20C0KH6.J5.						22.2 506 ..444
6.8	± 0.5 pF				D689D20C0HH6.J5.						22.2 506 ..645
10	± 5				D100J20C0GH6.J5.						22.2 506 ..005
12					D120J20C0GH6.J5.						22.2 506 ..055
15					D150J20C0GH6.J5.						22.2 506 ..105
18					D180J20C0GH6.J5.						22.2 506 ..155
22		D220J20C0GH6.J5.			22.2 506 ..205						
27		D270J20C0GH6.J5.			22.2 506 ..255						
33		D330J20C0GH6.J5.			22.2 506 ..305						
39		D390J25C0GH6.J5.			22.2 506 ..355						
47		D470J25C0GH6.J5.			22.2 506 ..405						
<b>CLASS 1 SL0</b>											
56	± 5	5.0	5.0	4.0	D560J20SL0H6.J5.			06	08	10	22.2 566 ..505
68					D680J20SL0H6.J5.						22.2 566 ..605
82					D820J20SL0H6.J5.						22.2 566 ..805
100					D101J20SL0H6.J5.						22.2 566 ..015

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. 3<sup>rd</sup> digit to complete RoHS catalog number. 8<sup>th</sup> and 9<sup>th</sup> digit of the catalog number to be completed with the packaging code.

<b>ORDERING INFORMATION, CLASS 2, 100 V (DC), KINKED</b>											
C (pF)	TOL. (%)	D <sub>max</sub> (mm)	LEAD SPACING F (mm)	SH <sup>(2)</sup> (mm)	CLEAR TEXT CODE			PACKAGING CODE 8 <sup>th</sup> AND 9 <sup>th</sup> DIGIT <sup>(3)</sup>			CATALOG NUMBER <sup>(4)</sup> 3 <sup>rd</sup> DIGIT: 5 = STANDARD 8 = RoHS COMPLIANT
					13 <sup>th</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK 16 <sup>th</sup> DIGIT: R = RoHS COMPLIANT	REEL	AMMO	BULK			
<b>CLASS 2 Y5P</b>											
150	± 10	5.0	5.0	4.0	D151K20Y5PH6.J5.			06	08	10	22.2 616 ..111
180					D181K20Y5PH6.J5.						22.2 616 ..161
220					D221K20Y5PH6.J5.						22.2 616 ..211
330					D331K20Y5PH6.J5.						22.2 616 ..311
470					D471K20Y5PH6.J5.						22.2 616 ..411
680					D681K20Y5PH6.J5.						22.2 616 ..611
1000					D102K20Y5PH6.J5.						22.2 616 ..021
1500					D152K25Y5PH6.J5.						22.2 616 ..121
1800					D182K25Y5PH6.J5.						22.2 616 ..171
2200					D222K25Y5PH6.J5.						22.2 616 ..221
3300		6.5	D332K29Y5PH6.J5.			22.2 616 ..321					
4700		7.5	D472K33Y5PH6.J5.			22.2 616 ..421					
6800		8.5	D682K39Y5PH6.J5.			22.2 616 ..621					
10000		10.0	D103K43Y5PH6.J5.			22.2 616 ..031					
		11.0									



<b>ORDERING INFORMATION, CLASS 2, 100 V (DC), KINKED</b>										
C (pF)	TOL. (%)	D <sub>max</sub> (mm)	LEAD SPACING F (mm)	SH <sup>(2)</sup> (mm)	CLEAR TEXT CODE	PACKAGING CODE 8 <sup>th</sup> AND 9 <sup>th</sup> DIGIT <sup>(3)</sup>			CATALOG NUMBER <sup>(4)</sup> 3 <sup>rd</sup> DIGIT: 5 = STANDARD 8 = RoHS COMPLIANT	
					13 <sup>th</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK 16 <sup>th</sup> DIGIT: R = RoHS COMPLIANT	REEL	AMMO	BULK		
<b>CLASS 2 Z5U</b>										
1000	± 20	5.0	5.0	4.0	D102M20Z5UH6.J5.	06	08	10	22.2 646 ..022	
1500					D152M20Z5UH6.J5.				22.2 646 ..122	
2200					D222M20Z5UH6.J5.				22.2 646 ..222	
3300					D332M20Z5UH6.J5.				22.2 646 ..322	
4700					D472M25Z5UH6.J5.				22.2 646 ..422	
6800		6.5			D682M25Z5UH6.J5.				22.2 646 ..622	
10000					7.5				D103M29Z5UH6.J5.	22.2 646 ..032
15000					8.5				D153M33Z5UH6.J5.	22.2 646 ..132
22000					10.0				D223M39Z5UH6.J5.	22.2 646 ..232
<b>CLASS 2 Y5V</b>										
1000	+ 80/- 20 %	5.0	5.0	4.0	D102Z20Y5VH6.J5.	06	08	10	22.2 636 ..023	
1500					D152Z20Y5VH6.J5.				22.2 636 ..123	
2200					D222Z20Y5VH6.J5.				22.2 636 ..223	
3300					D322Z20Y5VH6.J5.				22.2 636 ..323	
4700					D472Z20Y5VH6.J5.				22.2 636 ..423	
6800		6.5			D682Z25Y5VH6.J5.				22.2 636 ..623	
10000					7.5				D103Z29Y5VH6.J5.	22.2 636 ..033
15000					8.5				D153Z33Y5VH6.J5.	22.2 636 ..133
22000					10.0				D223Z39Y5VH6.J5.	22.2 636 ..233
<b>CLASS 2 Z5V</b>										
4700	+ 80/- 20 %	5.0	5.0	4.0	D472Z20Z5VH6.J5.	06	08	10	22.2 656 ..423	
10000		6.5			D103Z25Z5VH6.J5.				22.2 656 ..033	
22000		8.5			D223Z33Z5VH6.J5.				22.2 656 ..233	
47000		11.0			D473Z43Z5VH6.J5.				22.2 656 ..433	

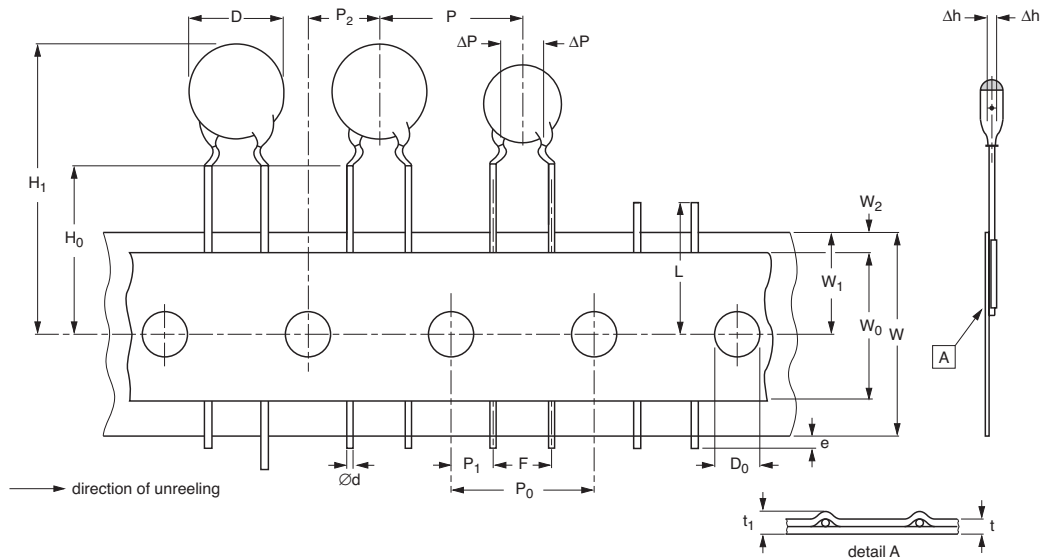
**Notes**

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

<b>PACKAGING</b>				
D <sub>max</sub> (mm)	SIZE CODE	PACKAGING QUANTITIES		
		BULK	REEL	AMMO
5.0 (0.20")	20	1000	2500	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			

**Note**

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



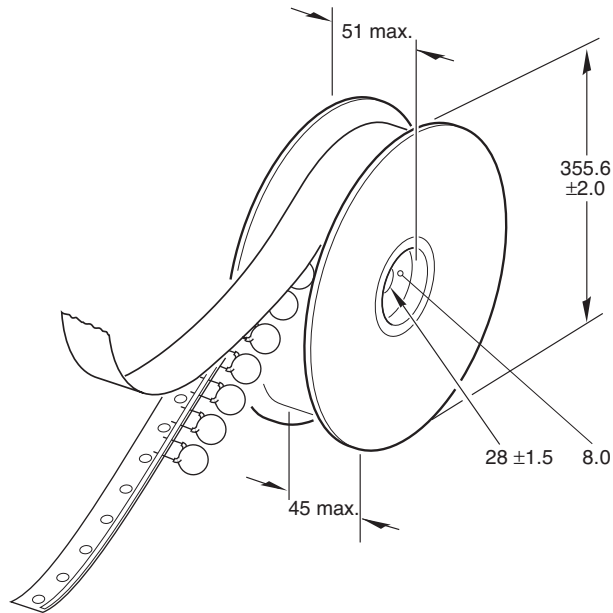
Kinked capacitors on tape, lead spacing 5.0 mm (0.2"), on tape.

<b>DIMENSIONS OF TAPE</b>			
<b>SYMBOL</b>	<b>PARAMETER</b>	<b>DIMENSIONS (mm)</b>	
		<b>NOMINAL</b>	<b>TOLERANCE</b>
D	body diameter	11.0 maximum	-
d	lead diameter	0.6	± 0.05
P	pitch between capacitors	12.7	± 1.0
P <sub>0</sub>	feed-hole pitch	12.7	± 0.3; note 1
ΔP	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
Δs	deviation along tape, left or right	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	-
e	lead end protrusion	1.0 maximum	-
L	maximum length of snapped 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	-

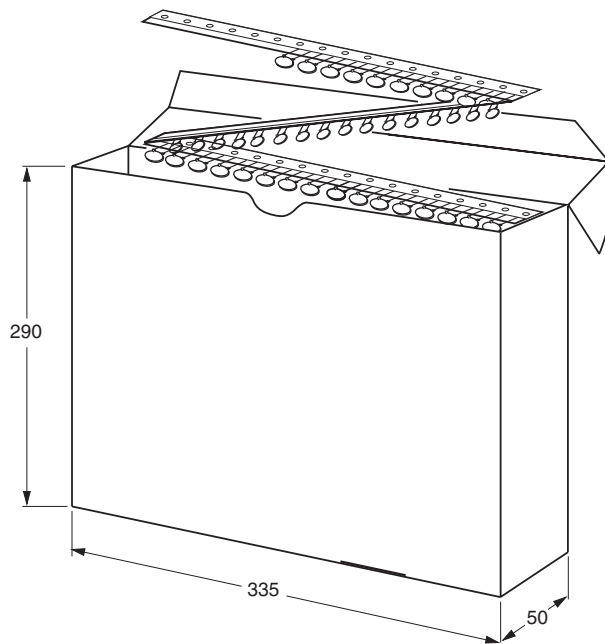
**Notes**

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

## REEL AND TAPE DATA in millimeters



Reel with capacitors on tape.



Ampopack with capacitors on tape.