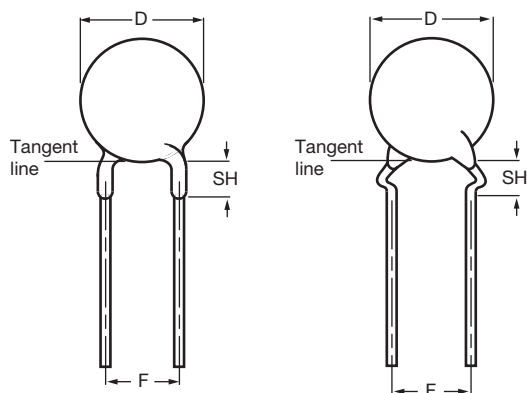


## Ceramic Disc Capacitors Class 1, 3 kV<sub>DC</sub>



Capacitors with 7.5 mm (0.30") and 10 mm (0.40") lead spacing

QUICK REFERENCE DATA	
DESCRIPTION	CLASS 1 (C0G)
Voltage (V <sub>DC</sub> )	3000
Min. Capacitance (pF)	2
Max. Capacitance (pF)	220
Mounting	Through hole

### MARKING

Straight and kinked leaded versions are gold coloured. Marking indicates capacitance value and tolerance in accordance with "EIA 198", and voltage.

### OPERATING TEMPERATURE RANGE

Class 1, C0G; U2J, U2M, - 55 °C to + 125 °C

### TEMPERATURE COEFFICIENTS

Class 1, C0G

### SECTIONAL SPECIFICATIONS

Class 1, IEC 60384-8,  
EIA 198

### CLIMATIC CATEGORY

Class 1, C0G; U2J, U2M, 55/125/21

### FEATURES

- Low losses
- High stability
- High capacitance in small size
- Kinked (preferred) or straight leads
- Compliant to RoHS directive 2002/095/EC



RoHS  
COMPLIANT

### APPLICATIONS

- DC high voltage
- Pulse high voltage
- LCD backlight inverter

### 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 or 0.8 mm.

The capacitors may be supplied with kinked or straight leads with a lead spacing of 7.5 mm (0.30") or 10 mm (0.40") and a lead length from 4 mm to 30 mm. The standard tolerance on capacitance is  $\pm 5\%$  or  $\pm 10\%$  for class 1 capacitors. Encapsulation is made of gold-colored epoxy-resin, flammable resistant in accordance with "UL 94 V-0"

### CAPACITANCE RANGE

Class 1, at 1 MHz, 1.2 V<sub>RMS</sub>; 2 pF to 220 pF

### RATED DC VOLTAGE

3 kV

### DIELECTRIC STRENGTH

According to IEC 384-8,  $1.5 \times U_R + 500 V_{DC}$  (5 kV<sub>DC</sub>)

### INSULATION RESISTANCE AT 500 V<sub>DC</sub>

$\geq 10\,000 M\Omega$

### TOLERANCE ON CAPACITANCE

$\pm 5\%$ ;  $\pm 10\%$ ;

Other tolerances available on request

### DISSIPATION FACTOR

$C \leq 5\text{ pF}$ , 0.55 % max.

$10\text{ pF} \leq C < 33\text{ pF}$ ,  $20 \times (150/C + 7) \times 10^{-4}$

$C \geq 33\text{ pF}$ ; 0.20 % max.



<b>ORDERING INFORMATION 3 kV<sub>DC</sub>, KINKED</b>						
C (pF)	TOL. (%)	D <sub>MAX.</sub> (mm)	LEAD SPACING (mm)	SH/DR <sub>MAX.</sub> <sup>(1)</sup> (mm)	CLEAR TEXT CODE	
					13 <sup>TH</sup> DIGIT: T = REEL; U = AMMO; 3 = BULK	
<b>CLASS 1 C0G</b>						
2	± 0.25	6.5	7.5	4.0	S209C25C0KR6.K7R	
3					S309C25C0JR6.K7R	
4.9	± 0.50				S499D25C0HR6.K7R	
10					S100J25U2JR6.K7R	
15	S150J25U2JR6.K7R					
22	± 5				S220J25U2MR6.K7R	
33					S330J25U2MR6.K7R	
47					7.5	S470J29U2MR6.K7R
68					8	S680J31U2MR6.K7R
100					9	S101J35U2MR6.K7R
120		10	S121J39U2MR6.K7R			
150		10.5	S151J41U2MR6.K7R			
180		12.5	S181J49U2MR6.K7R			
220			S221J49U2MR6.K7R			

**Notes**

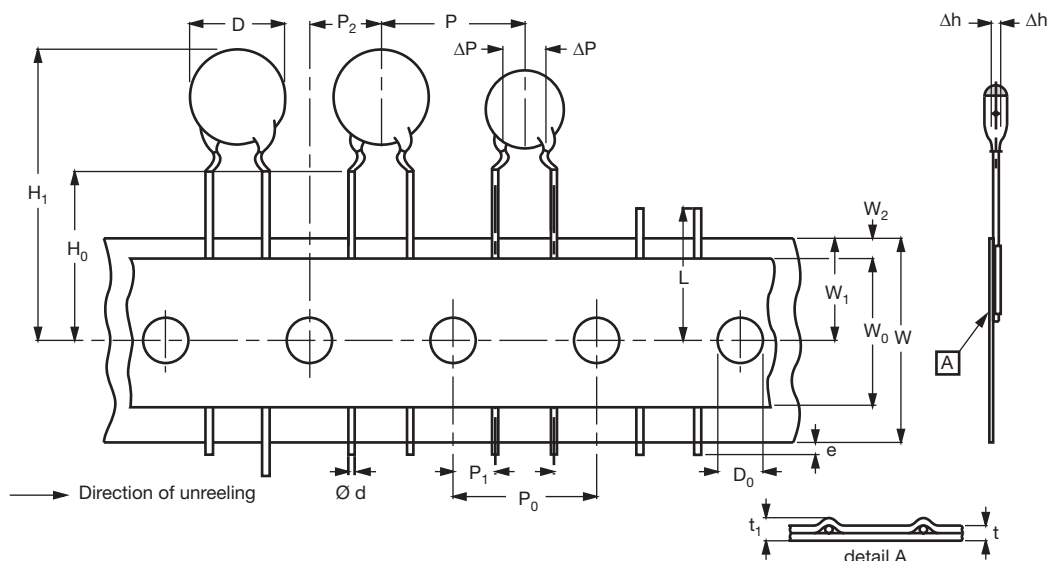
<sup>(1)</sup> SH = Seated height

- Maximum thickness 5.0 mm
- Refer to outward kinked leads. Other styles available on request (straight or inline kinked leads).

<b>PACKAGING</b>					
PACKAGING TYPE	SIZE CODE	LEAD SPACE (mm)	VOLTAGE (V <sub>DC</sub> )	SPQ	BOX DIMENSIONS L x W x H
Bulk (long lead L ≥ 25.4 mm)	20 to 47	≥ 7.5	3 kV	1000	245 x 120 x 65
				1000	
	1000				
	500				
	84 to 96			250	
Tape and reel	≤ 47			1000	370 x 370 x 60
Ammopack	≤ 47			1500	360 x 330 x 55

**Note**

- 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")

DIMENSIONS OF TAPE			
SYMBOL	PARAMETER	DIMENSIONS (mm)	
		NOMINAL	TOLERANCE
D	Body diameter	14.0 max.	-
d	Lead diameter	0.6	± 0.05
P	Pitch between capacitors	15	± 1.0
P <sub>0</sub> <sup>(1)</sup>	Feed-hole pitch	15	± 0.3
ΔP	Plane deviation	1.0 max.	-
P <sub>1</sub> <sup>(2)</sup>	Feed-hole center to lead center	3.75	± 0.7
P <sub>2</sub> <sup>(2)</sup>	Feed-hole center to component center	7.5	± 1.3
F	Lead spacing	7.5	-1.5
Δh	Component alignment	0	± 1.0
W	Tape width	18.0	- 0.5
W <sub>0</sub>	Hold-down tape width	5.0 min.	-
W <sub>1</sub>	Hole position	9.0	0.75 - 0.5
W <sub>2</sub>	Hold-down tape margin	3.0 max.	-
H <sub>0</sub>	Height to seating plane	16.0	± 0.5
H <sub>1</sub>	Maximum component height	40.0	-
e	Lead end protrusion	1.0 max.	-
L	Maximum length of snipped lead	11.0	-
D <sub>0</sub>	Feed-hole diameter	4.0	± 0.2
t	Total tape thickness	0.9 max.	-
t <sub>1</sub>	Maximum thickness of tape and wires	1.5 max.	-

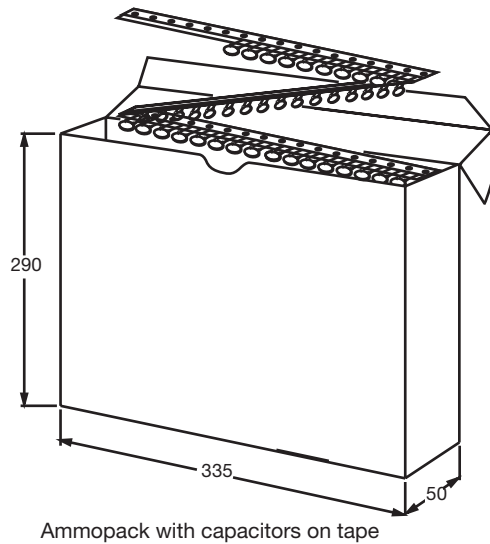
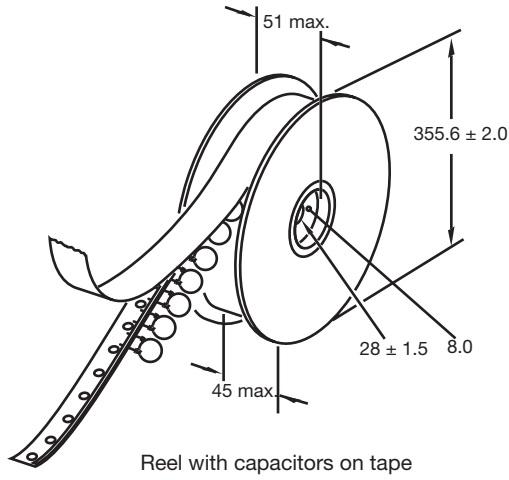
**Notes**

(1) Cumulative pitch error: ± 1 mm/20 pitches

(2) Obliquity maximum 3°



**REEL AND TAPE DATA** in millimeters





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