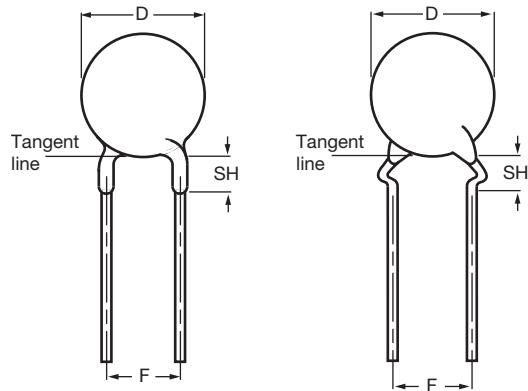


## Ceramic Disc Capacitors Class 1, 3 kV<sub>DC</sub>



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 2002/95/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<sub>DC</sub> (5 kV<sub>DC</sub>)

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

$\geq 10\,000$  MΩ

### TOLERANCE ON CAPACITANCE

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

Other tolerances available on request

### DISSIPATION FACTOR

$C \leq 5$  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.

**ORDERING INFORMATION 3 kV<sub>DC</sub>, KINKED**

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					S499D25C0HR6.K7R	
10					S100J25U2JR6.K7R	
15					S150J25U2JR6.K7R	
22					S220J25U2MR6.K7R	
33					S330J25U2MR6.K7R	
47					S470J29U2MR6.K7R	
68					S680J31U2MR6.K7R	
100					S101J35U2MR6.K7R	
120					S121J39U2MR6.K7R	
150					S151J41U2MR6.K7R	
180					S181J49U2MR6.K7R	
220					S221J49U2MR6.K7R	

**Notes**

(1) SH = Seated height

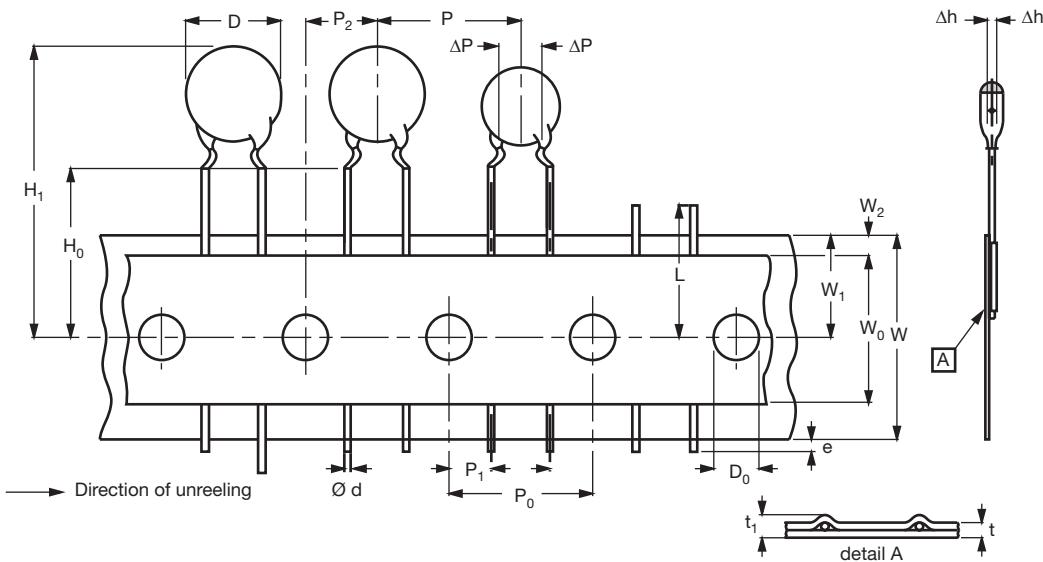
- Maximum thickness 5.0 mm
- Refer to outward kinked leads. Other styles available on request (straight or inline kinked leads).

**PACKAGING**

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	
	53 to 45			500	
	84 to 96			250	
	≤ 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 ammopack



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

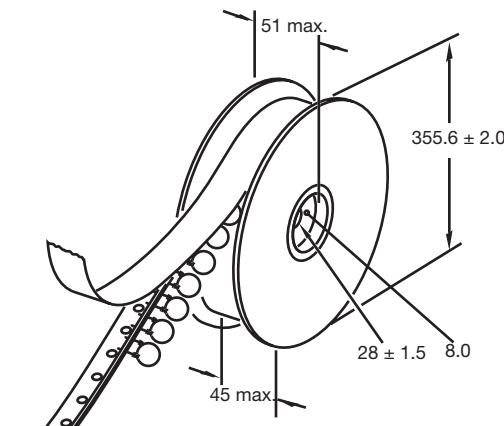
### DIMENSIONS OF TAPE

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	1.0 - 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.	-

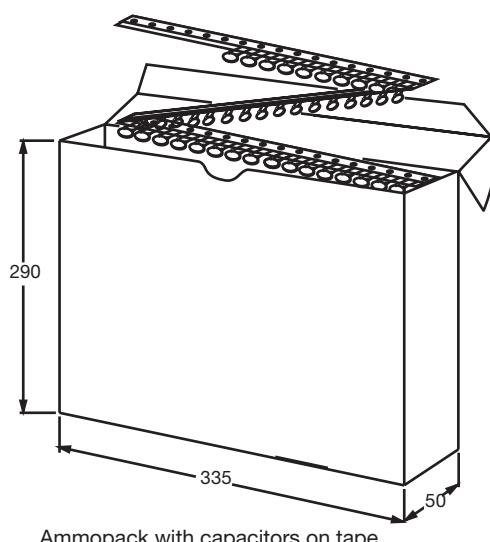
### Notes

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

(2) Obliquity maximum 3°

**REEL AND TAPE DATA** in millimeters


Reel with capacitors on tape



Ammopack with capacitors on tape

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