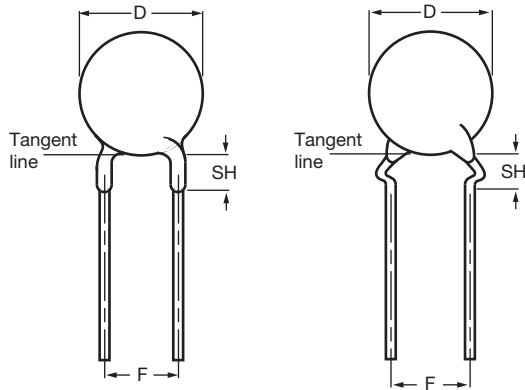


Ceramic Disc Capacitors Class 1, 4 kV_{DC}



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

| QUICK REFERENCE DATA | |
|----------------------------|---------------|
| DESCRIPTION | CLASS 1 (C0G) |
| Voltage (V _{DC}) | 4000 |
| Min. Capacitance (pF) | 2 |
| Max. Capacitance (pF) | 100 |
| Mounting | Through hole |

MARKING

Straight and kinked leaded versions are gold colored. 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, C0G, 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 of 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_{RMS}; 2 pF to 100 pF

RATED DC VOLTAGE

4 kV

DIELECTRIC STRENGTH

According to IEC 384-8, $1.5 \times U_R + 500 V_{DC}$ (6.5 kV_{DC})

INSULATION RESISTANCE AT 500 V_{DC}

$\geq 10\,000 M\Omega$

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.

| ORDERING INFORMATION, 4 kV _{DC} , KINKED | | | | | |
|---|-------------|---------------------------|---------------------------|---------------------------|---|
| C (pF) | TOL. (%) | D _{MAX.} (mm) | LEAD SPACING F (mm) | SH ⁽¹⁾ (mm) | CLEAR TEXT CODE |
| | | | | | 13TH DIGIT: T = REEL; U = AMMO; 3 = BULK |
| CLASS 1 COG | | | | | |
| 2 | ± 0.5 | 6.5 | 7.5 | 4.0 | S209D25C0KV6.K7R |
| 3 | | | | | S309D25C0JV6.K7R |
| 5 | | 7.5 | | | S509D29C0HV6.K7R |
| 10 | ± 5 | 6.5 | | | S100J25U2JV6.K7R |
| 12 | | 7.5 | | | S120J29U2JV6.K7R |
| 15 | | | | | S150J29U2JV6.K7R |
| 18 | | | | | S180J25U2MV6.K7R |
| 22 | | | | | S220J25U2MV6.K7R |
| 27 | | | | | S270J25U2MV6.K7R |
| 33 | | | | | S330J29U2MV6.K7R |
| 39 | | S390J29U2MV6.K7R | | | |
| 47 | | 8.0 | S470J31U2MV6.K7R | | |
| 68 | | 9.0 | S680J35U2MV6.K7R | | |
| 100 | | 10.0 | S101J39U2MV6.K7R | | |

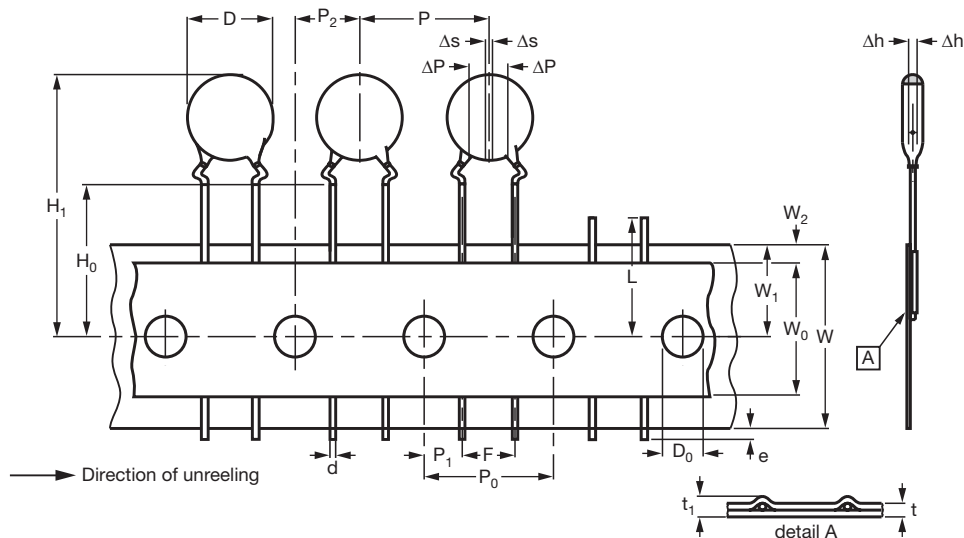
Notes

- (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 _{DC}) | SPQ | BOX DIMENSIONS L x W x H (mm) |
| Bulk (long lead L ≥ 25.4 mm) | 25 to 47 | 10.0 | 4 kV | 1000 | 245 x 120 x 65 |
| | | | | 1000 | |
| | 1000 | | | | |
| | 500 | | | | |

Note

- The capacitors are supplied in bulk packaging (cardboard boxes), in tape on reel or in ammopack



Kinked capacitors on tape, lead spacing 7.5 mm (0.30")

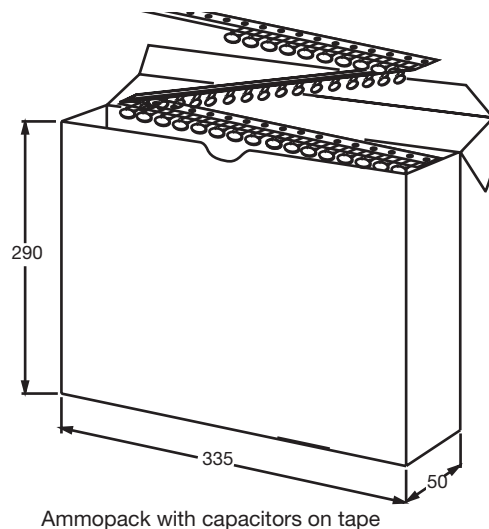
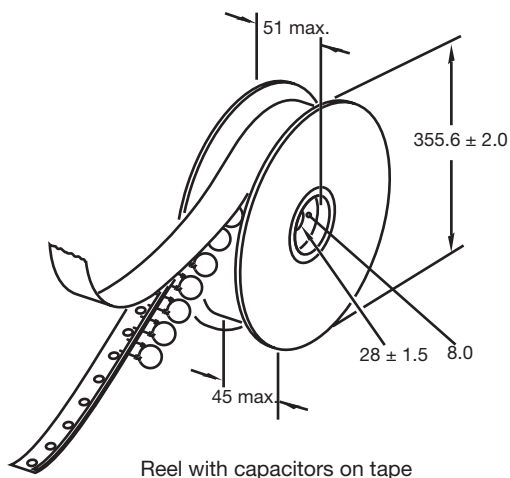
| DIMENSIONS OF TAPE | | | |
|-------------------------------|--------------------------------------|-----------------|---------------|
| SYMBOL | PARAMETER | DIMENSIONS (mm) | |
| | | NOMINAL | TOLERANCE |
| D | Body diameter | 14.0 max. | - |
| d | Lead diameter | 0.6 | ± 0.05 |
| P | Pitch between capacitors | 15 | ± 1.0 |
| P ₀ ⁽¹⁾ | Feed-hole pitch | 15 | ± 0.3 |
| ΔP | Plane deviation | 1.0 max. | - |
| P ₁ ⁽²⁾ | Feed-hole center to lead center | 3.75 | ± 0.7 |
| P ₂ ⁽²⁾ | Feed-hole center to component center | 7.5 | ± 1.3 |
| F | Lead spacing | 7.5 | + 0.6/- 0.4 |
| Δh | Component alignment | 0 | ± 1.0 |
| W | Tape width | 18.0 | 1.0 - 0.5 |
| W ₀ | Hold-down tape width | 5.0 min. | - |
| W ₁ | Hole position | 9.0 | 0.75 - 0.5 |
| W ₂ | Hold-down tape margin | 3.0 max. | - |
| H ₀ | Height to seating plane | 16.0 | ± 0.5 |
| H ₁ | Maximum component height | 40.0 | - |
| e | Lead end protrusion | 1.0 max. | - |
| L | Maximum length of snipped lead | 11.0 | - |
| D ₀ | Feed-hole diameter | 4.0 | ± 0.2 |
| t | Total tape thickness | 0.9 max. | - |
| t ₁ | Maximum thickness of tape and wires | 1.5 max. | - |

Notes

(1) Cumulative pitch error: $\pm \leq 1$ mm/20 pitches

(2) Obliquity maximum 3°

REEL AND TAPE DATA in millimeters





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