

Ceramic Disc Capacitors Class 1 and 2, 1/2/3/6 kV General Purpose

FEATURES

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

APPLICATIONS

- DC high voltage
- Pulse high voltage
- SMPS
- HV power supply
- HF ballast.

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 up to 3 kV and 0.8 mm for 6 kV.

The capacitors may be supplied with kinked or straight leads with a lead spacing of 5 mm (0.200 inch), 7.5 mm (0.300 inch) or 10 mm (0.400 inch) and a lead length from 4 to 30 mm. The standard tolerance on capacitance is 5 % or 10 % for class 1 capacitors and $\pm 10\%$ or $\pm 20\%$ for class 2 capacitors. Encapsulation is made of gold-coloured epoxy-resin, flammable resistant in accordance with "UL94V-0".

CAPACITANCE RANGE:

Class 1, at 1 MHz, 1.2 V (RMS); 10 to 220 pF
1 kHz, 1 ± 0.2 V (RMS) for capacitance values higher than 1000 pF.
Class 2, at 1 kHz, 1 ± 0.2 V (RMS); 100 to 22000 pF

RATED DC VOLTAGE:

1 kV; 2 kV; 3 kV; 6 kV

DIELECTRIC STRENGTH:

200 % of rated voltage

INSULATION RESISTANCE AT 500V (DC):

≥ 10000 M Ω

TOLERANCE ON CAPACITANCE:

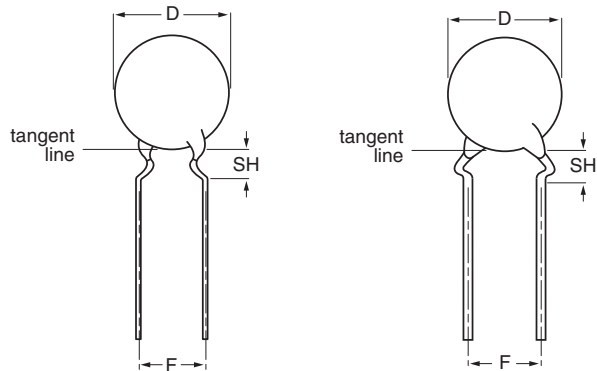
$\pm 5\%$; $\pm 10\%$; $\pm 20\%$; + 80 / - 20%
Other tolerances available on request

DISSIPATION FACTOR:

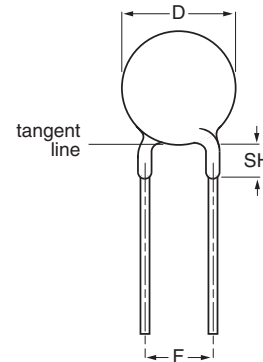
Class 1, $C \leq 30$ pF; $\leq 20 \times (10/C + 0.7) \times 10^{-4}$ max.
Class 1, $C > 30$ pF; $\leq 20 \times 10^{-4}$
Class 2, $\leq 3.0\%$

OPERATING TEMPERATURE RANGE:

Class1 SL0; S3N - 55 to + 125 °C
Class 2 X7R - 55 to + 125 °C
Class 2 Y5P; Z5U; Y5V - 30 to + 85 °C



Capacitors with 5 mm (0.20 inch), 7.5 mm (0.30 inch) and 10 mm (0.40 inch) lead spacing.



Capacitors with 10 mm (0.40 inch) lead spacing.

TEMPERATURE COEFFICIENTS:

Class 1 SL; S3N
Class 2 X7R; Y5P; Z5U; Y5V

SECTIONAL SPECIFICATIONS:

Class 1 IEC 60 384-8,
Class 2 IEC 60 384-9,
EIA 198

CLIMATIC CATEGORY:

Class 1 SL0 55/125/21
Class 2 X7R 55/125/21
Class 2 Y5P; Z5U; Y5V 30/85/21

MARKING

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



ORDERING INFORMATION, 1 KV (DC), KINKED										
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE			PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾	CATALOG NUMBER ⁽⁴⁾	
			KINKED		13 th DIGIT: T = REEL; U = AMMO; 3 = BULK 16 th DIGIT: R = RoHS COMPLIANT	REEL	AMMO		BULK	3 rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT
CLASS 1 SL0										
10	± 5	6.5	5.0	4.0	S100J25SL0N6.J5.	06	08	10	22.2 561 ..009	
	± 10				S100K25SL0N6.J5.				22.2 561 ..006	
12	± 5				S120J25SL0N6.J5.				22.2 561 ..059	
	± 10				S120K25SL0N6.J5.				22.2 561 ..056	
15	± 5				S150J25SL0N6.J5.				22.2 561 ..109	
	± 10				S150K25SL0N6.J5.				22.2 561 ..106	
18	± 5				S180J25SL0N6.J5.				22.2 561 ..159	
	± 10				S180K25SL0N6.J5.				22.2 561 ..156	
22	± 5				S220J25SL0N6.J5.				22.2 561 ..209	
	± 10				S220K25SL0N6.J5.				22.2 561 ..206	
27	± 5				S270J25SL0N6.J5.				22.2 561 ..259	
	± 10				S270K25SL0N6.J5.				22.2 561 ..256	
33	± 5				S330J25SL0N6.J5.				22.2 561 ..309	
	± 10				S330K25SL0N6.J5.				22.2 561 ..306	
39	± 5				S390J25SL0N6.J5.				22.2 561 ..359	
	± 10				S390K25SL0N6.J5.				22.2 561 ..356	
47	± 5				S470J25SL0N6.J5.				22.2 561 ..409	
	± 10				S470K25SL0N6.J5.				22.2 561 ..406	
56	± 5	7.5	5.0	4.0	S560J29SL0N6.J5.	06	08	10	22.2 561 ..509	
	± 10				S560K29SL0N6.J5.				22.2 561 ..506	
68	± 5				S680J29SL0N6.J5.				22.2 561 ..609	
	± 10				S680K29SL0N6.J5.				22.2 561 ..606	
82	± 5				S820J29SL0N6.J5.				22.2 561 ..809	
	± 10				S820K29SL0N6.J5.				22.2 561 ..806	
100	± 5				S101J29SL0N6.J5.				22.2 561 ..019	
	± 10				S101K29SL0N6.J5.				22.2 561 ..016	
120	± 5				S121J33SL0N6.J5.				22.2 561 ..069	
	± 10				S121K33SL0N6.J5.				22.2 561 ..066	
150	± 10				8.5				S151K39SL0N6.J5.	22.2 561 ..116
220					10.0				S221K39SL0N6.J5.	22.2 561 ..216
CLASS 2 X7R										
100	± 10	6.5	5.0	4.0	S101K25X7RN6.J5.	06	08	10	22.2 601 ..016	
150					S151K25X7RN6.J5.				22.2 601 ..116	
220					S221K25X7RN6.J5.				22.2 601 ..216	
330					S331K25X7RN6.J5.				22.2 601 ..316	
470					S471K29X7RN6.J5.				22.2 601 ..416	
680					S681K29X7RN6.J5.				22.2 601 ..616	
1000		7.5	S102K33X7RN6.J5.	22.2 601 ..026						
1500		8.5	S152K39X7RN6.J5.	22.2 601 ..126						
2200		10.0	S222K43X7RN6.J5.	22.2 601 ..226						
3300		11.0	S332K47X7RN6.J7.	22.2 601 ..326						
4700		12.0	7.5	4.8	S472K59X7RN6.J7.	-	-	31	22.2 601 ..426	
		15.0								



ORDERING INFORMATION, 1 KV (DC), KINKED									
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE			PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾	CATALOG NUMBER ⁽⁴⁾
			KINKED		13 th DIGIT: T = REEL; U = AMMO; 3 = BULK 16 th DIGIT: R = RoHS COMPLIANT	REEL	AMMO		BULK
CLASS 2 Y5P									
100	± 10	6.5	5.0	4.0	S101K25Y5PN6.J5.	06	08	10	22.2 611 ..016
150					S151K25Y5PN6.J5.				22.2 611 ..116
220					S221K25Y5PN6.J5.				22.2 611 ..216
330					S331K25Y5PN6.J5.				22.2 611 ..316
470					S471K25Y5PN6.J5.				22.2 611 ..416
680					S681K29Y5PN6.J5.				22.2 611 ..616
1000		7.5	5.0	4.0	S102K29Y5PN6.J5.	06	08	10	22.2 611 ..026
1500					S152K33Y5PN6.J5.				22.2 611 ..126
2200					S222K39Y5PN6.J5.				22.2 611 ..226
3300		11.0	7.5	4.8	S332K43Y5PN6.J5.	-	-	31	22.2 611 ..326
4700					S472K53Y5PN6J7.				22.2 611 ..426
6800					S682K59Y5PN6J7.				22.2 611 ..626
10000					S103K75Y5PN8J0.				22.2 611 ..036
10000		± 20	6.5	5.0	4.0	S102M25Z5UN6.J5.	06	08	10
1500	S152M29Z5UN6.J5.					22.2 641 ..127			
2200	S222M29Z5UN6.J5.					22.2 641 ..227			
3300	S332M33Z5UN6.J5.					22.2 641 ..327			
4700	S472M39Z5UN6.J5.					22.2 641 ..427			
6800	S682M43Z5UN6.J5.					22.2 641 ..627			
10000	12.0		7.5	4.8	S103M47Z5UN6J7.	-	-	31	22.2 641 ..037
15000					S153M59Z5UN6J7.				22.2 641 ..137
22000					S223M75Z5UN8J0.				22.2 641 ..237
CLASS 2 Y5V									
1000	+ 80/- 20	6.5	5.0	4.0	S102Z25Y5VN6.J5.	06	08	10	22.2 631 ..028
1500					S152Z25Y5VN6.J5.				22.2 631 ..128
2200					S222Z29Y5VN6.J5.				22.2 631 ..228
3300					S322Z29Y5VN6.J5.				22.2 631 ..328
4700					S472Z33Y5VN6.J5.				22.2 631 ..428
6800					S682Z39Y5VN6.J5.				22.2 631 ..628
10000		11.0	7.5	4.8	S103Z43Y5VN6.J5.	-	-	31	22.2 631 ..038
15000					S153Z53Y5VN6.J7.				22.2 631 ..138
22000					S223Z59Y5VN6.J7.				22.2 631 ..238
33000		19.0	10.0		S333Z75Y5VN8.J0.			44	22.2 631 ..338

Notes

1. Maximum thickness 4.5 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.



ORDERING INFORMATION, 2 KV (DC), KINKED													
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE		PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾			CATALOG NUMBER ⁽⁴⁾ 3 rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT			
			KINKED		13 th DIGIT: T = REEL; U = AMMO; 3 = BULK 16 th DIGIT: R = RoHS COMPLIANT	REEL	AMMO	BULK	KINKED				
CLASS 1 SL0													
10	± 5 ± 10	6.5	5.0	4.0	S100J25SL0P6.K5.	13	14	15	22.2 562 ..009				
12	± 5 ± 10				S100K25SL0P6.K5.				22.2 562 ..006				
	15				± 5 ± 10				S120J25SL0P6.K5.	22.2 562 ..059			
18					± 5 ± 10				S120K25SL0P6.K5.	22.2 562 ..056			
	22				± 5 ± 10				S150J25SL0P6.K5.	22.2 562 ..109			
27					± 5 ± 10				S150K25SL0P6.K5.	22.2 562 ..106			
	33				± 5 ± 10				S180J25SL0P6.K5.	22.2 562 ..159			
39					± 5 ± 10				S180K25SL0P6.K5.	22.2 562 ..156			
	47				± 5 ± 10				S220J25SL0P6.K5.	22.2 562 ..209			
56					± 5 ± 10				S220K25SL0P6.K5.	22.2 562 ..206			
	68				± 5 ± 10				S270J25SL0P6.K5.	22.2 562 ..259			
82					± 5 ± 10				S270K25SL0P6.K5.	22.2 562 ..256			
	100	± 5 ± 10			S330J29SL0P6.K5.				22.2 562 ..309				
120		± 5 ± 10			S330K29SL0P6.K5.				22.2 562 ..306				
	150	± 5 ± 10			S390J29SL0P6.K5.				22.2 562 ..359				
150		± 5 ± 10			S390K29SL0P6.K5.				22.2 562 ..356				
	150	± 5 ± 10			S470J29SL0P6.K5.				22.2 562 ..409				
150		± 5 ± 10			S470K29SL0P6.K5.				22.2 562 ..406				
	150	± 5 ± 10			S560J29SL0P6.K5.				22.2 562 ..509				
150		± 5 ± 10			S560K29SL0P6.K5.				22.2 562 ..506				
	150	± 5 ± 10			S680J33SL0P6.K5.				22.2 562 ..609				
150		± 5 ± 10			S680K33SL0P6.K5.				22.2 562 ..606				
	150	± 5 ± 10			S820J33SL0P6.K5.				22.2 562 ..809				
150		± 5 ± 10			S820K33SL0P6.K5.				22.2 562 ..806				
	150	± 5 ± 10	S101J39SL0P6.K5.	22.2 562 ..019									
150		± 5 ± 10	S101K39SL0P6.K5.	22.2 562 ..016									
	150	± 5 ± 10	S121J39SL0P6.K5.	22.2 562 ..069									
150		± 5 ± 10	S121K39SL0P6.K5.	22.2 562 ..066									
	150	± 5 ± 10	S151K43SL0P6.K5.	22.2 562 ..116									
CLASS 2 X7R													
100	± 10	6.5	5.0	4.0	S101K25X7RP6.K5.	13	14	15	22.2 602 ..016				
150					S151K25X7RP6.K5.				22.2 602 ..116				
220					S221K25X7RP6.K5.				22.2 602 ..216				
330					S331K25X7RP6.K5.				22.2 602 ..316				
470					S471K29X7RP6.K5.				22.2 602 ..416				
680					S681K33X7RP6.K5.				22.2 602 ..616				
1000		S102K39X7RP6.K5.			22.2 602 ..026								
1500		S152K43X7RP6.K5.			22.2 602 ..126								
2200		S222K53X7RP6.K7.			7.5				4.8	-	-	37	22.2 602 ..226
3300		S332K59X7RP6.K7.			15.0				4.8	-	-	37	22.2 602 ..326



ORDERING INFORMATION, 2 KV (DC), KINKED														
CLASS 2 Y5P														
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SH ⁽²⁾ (mm)	CLEAR TEXT CODE			PACKAGING CODE 8 th AND 9 th DIGIT ⁽³⁾			CATALOG NUMBER ⁽⁴⁾ 3 rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT			
			KINKED		13 th DIGIT: T = REEL; U = AMMO; 3 = BULK 16 th DIGIT: R = RoHS COMPLIANT	REEL	AMMO	BULK	KINKED					
100	± 10	6.5	5.0	4.0	S101K25Y5PP6.K5.	13	14	15	22.2 612 ..016					
150					S151K25Y5PP6.K5.				22.2 612 ..116					
220					S221K25Y5PP6.K5.				22.2 612 ..216					
330					S331K25Y5PP6.K5.				22.2 612 ..316					
470					S471K29Y5PP6.K5.				22.2 612 ..416					
680					S681K29Y5PP6.K5.				22.2 612 ..616					
1000		7.5	5.0	4.0	S102K33Y5PP6.K5.	13	14	15	22.2 612 ..026					
1500					S152K39Y5PP6.K5.				22.2 612 ..126					
2200					S222K43Y5PP6.K5.				22.2 612 ..226					
3300					S332K53Y5PP63K7.				22.2 612 ..326					
4700					7.5				4.8	S472K69Y5PP63K7.	-	-	37	22.2 612 ..426
CLASS 2 Z5U														
1000	± 20	7.5	5.0	4.0	S102M29Z5UP6.K5.	13	14	15	22.2 642 ..027					
1500		8.5			S152M33Z5UP6.K5.				22.2 642 ..127					
2200		11.0			S222M33Z5UP6.K5.				22.2 642 ..227					
3300		12.0			S332M43Z5UP6.K5.				22.2 642 ..327					
4700		7.5	4.8	S472M47Z5UP63K7.	-	-	37	22.2 642 ..427						
6800				S682M53Z5UP63K7.				22.2 642 ..627						
10000				13.5				S103M69Z5UP63K7.	22.2 642 ..037					
				17.5										
CLASS 2 Y5V														
1000	+ 80/- 20	7.5	5.0	4.0	S102Z29Y5VP6.K5.	13	14	15	22.2 632 ..028					
1500					S152Z29Y5VP6.K5.				22.2 632 ..128					
2200					8.5				S222Z33Y5VP6.K5.	22.2 632 ..228				
3300					10.5				S322Z39Y5VP6.K5.	22.2 632 ..328				
4700		7.5	4.8	S472Z43Y5VP6.K5.	-	-	37	22.2 632 ..428						
6800				12.0				S682Z47Y5VP6.K7.	22.2 632 ..628					
10000				15.0				S103Z59Y5VP6.K7.	22.2 632 ..038					

Notes

1. Maximum thickness 5.0 mm.
2. SH = seated height.
3. Packaging codes refer to outward 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.



ORDERING INFORMATION, 3 kV (DC), KINKED							
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SEATED HEIGHT (mm)	CLEAR TEXT CODE 16 th DIGIT: R = RoHS COMPLIANT	CATALOG NUMBER ⁽²⁾ 3 rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT	
			KINKED			KINKED ⁽³⁾	
CLASS 1 SL							
10	± 10	8.5	7.5	4.0	S100K33SL0R63K7.	22.2 563 37006	
15					S150K33SL0R63K7.	22.2 563 37106	
22					S220K33SL0R63K7.	22.2 563 37206	
33					S330K33SL0R63K7.	22.2 563 37306	
47					S470K33SL0R63K7.	22.2 563 37406	
68		10.0			S680K39SL0R63K7.	22.2 563 37606	
CLASS 2 X7R							
100	± 10	8.5	7.5	4.0	S101K33X7RR63K7.	22.2 603 37016	
150					S151K33X7RR63K7.	22.2 603 37116	
220					S221K33X7RR63K7.	22.2 603 37216	
330					S331K33X7RR63K7.	22.2 603 37316	
470					S471K33X7RR63K7.	22.2 603 37416	
680					10.0	S681K39X7RR63K7.	22.2 603 37616
1000					11.0	S102K43X7RR63K7.	22.2 603 37026
1500		13.5		S152K53X7RR63K7.	22.2 603 37126		
2200		17.5		S222K59X7RR83K7.	22.2 603 38226		
CLASS 2 Y5P							
100	± 10	8.5	7.5	4.0	S101K33Y5PR63K7.	22.2 613 37016	
150					S151K33Y5PR63K7.	22.2 613 37116	
220					S221K33Y5PR63K7.	22.2 613 37216	
330					S331K33Y5PR63K7.	22.2 613 37316	
470					S471K33Y5PR63K7.	22.2 613 37416	
680					11.0	S681K33Y5PR63K7.	22.2 613 37616
1000					12.0	S102K43Y5PR63K7.	22.2 613 37026
1500		15.0		S152K47Y5PR63K7.	22.2 613 37126		
2200		19.0		S222K59Y5PR63K7.	22.2 613 37226		
3300		10.0		S332K75Y5PR83K0.	22.2 613 48326		
CLASS 2 Z5U							
470	± 20	8.5	7.5	4.0	S471M33Z5UR63K7.	22.2 643 37417	
680					S681M33Z5UR63K7.	22.2 643 37617	
1000					S102M33Z5UR63K7.	22.2 643 37027	
1500					S152M39Z5UR63K7.	22.2 643 37127	
2200					11.0	S222M43Z5UR63K7.	22.2 643 37227
3300		13.5		S332M53Z5UR63K7.	22.2 643 37327		
4700		17.5		S472M69Z5UR83K7.	22.2 643 38427		
CLASS 2 Y5V							
1000	+ 80/- 20	8.5	7.5	4.0	S102Z33Y5VR63K7.	22.2 633 37028	
1500		10.0			S152Z33Y5VR63K7.	22.2 633 37128	
2200		11.0			S222Z39Y5VR63K7.	22.2 633 37228	
3300		12.0		S322Z43Y5VR63K7.	22.2 633 37328		
4700		15.0		S472Z47Y5VR63K7.	22.2 633 37428		
6800		4.8		S682Z59Y5VR63K7.	22.2 633 37628		

Notes

1. Maximum thickness 6.0 mm.
2. Packaging codes refer to outward kinked leads. Other styles available on request. 3rd digit to complete RoHS catalog number.
3. All packaged in bulk.



ORDERING INFORMATION, 6 kV (DC), KINKED						
C (pF)	TOL. (%)	D _{max} (mm)	LEAD SPACING F (mm)	SEATED HEIGHT (mm)	CLEAR TEXT CODE 16 th DIGIT: R = RoHS COMPLIANT	CATALOG NUMBER ⁽²⁾ 3 rd DIGIT: 5 = STANDARD, 8 = RoHS COMPLIANT
			STRAIGHT			STRAIGHT ⁽³⁾
CLASS 1 SL						
10	± 20	10.0	10	3.0	S100M39SL0U83L0.	22.2 564 52007
15					S150M43SL0U83L0.	22.2 564 52107
22					S220M43SL0U83L0.	22.2 564 52207
33					S330M53SL0U83L0.	22.2 564 52307
CLASS 1 S3N						
47	± 20	11.0	10	3.0	S470M43S3NU83L0.	22.2 574 52407
68		13.5			S680M53S3NU83L0.	22.2 574 52607
100		15.0			S101M59S3NU83L0.	22.2 574 52017
150		15.0			S151M59S3NU83L0.	22.2 574 52117
CLASS 2 Z5U						
220	± 20	10.0	10	3.0	S221M39Z5UU83L0.	22.2 644 52217
330		11.0			S331M43Z5UU83L0.	22.2 644 52317
470		12.0			S471M47Z5UU83L0.	22.2 644 52417
680		13.5			S681M53Z5UU83L0.	22.2 644 52617
1000		15.0			S102M59Z5UU83L0.	22.2 644 52027
1500		17.5			S152M69Z5UU83L0.	22.2 644 52127
2200		19.0			S222M75Z5UU83L0.	22.2 644 52227

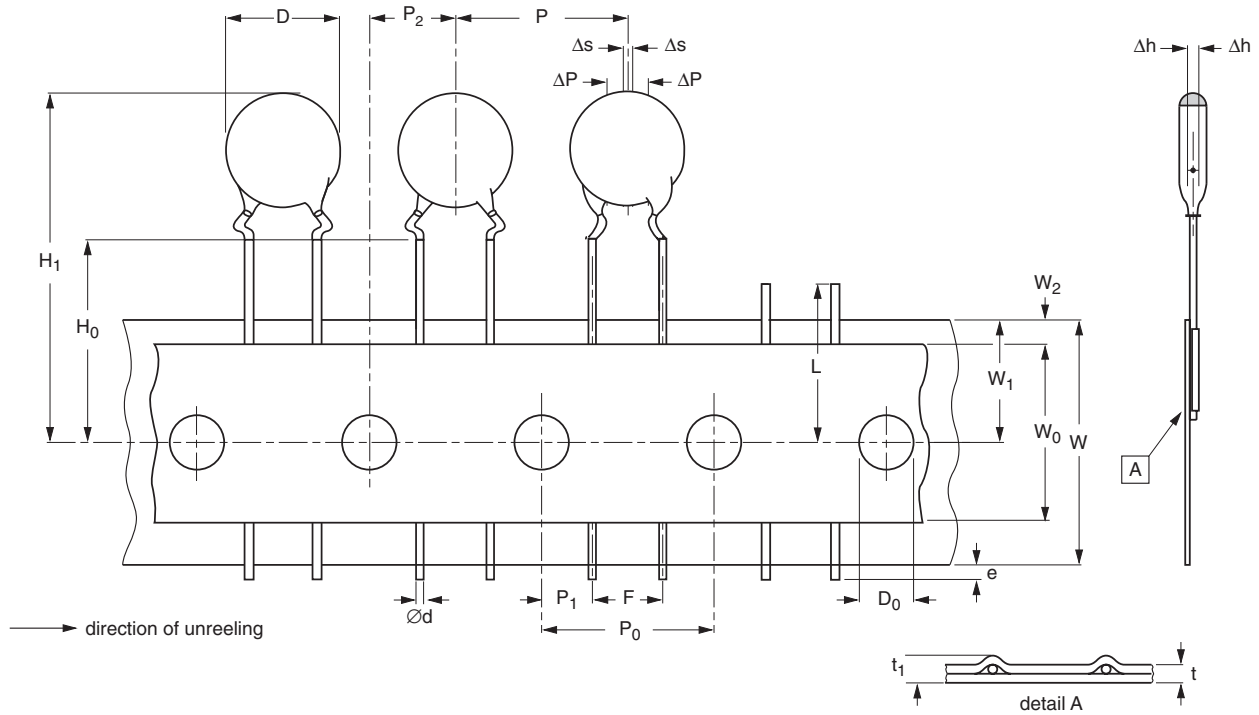
Notes

1. Maximum thickness 8.0 mm.
2. Packaging codes refer to straight leads. Other styles available on request. 3rd digit to complete RoHS catalog number.
3. All packaged in bulk.

PACKAGING					
PACKAGING TYPE	SIZE CODE	LEAD SPACE (mm)	VOLTAGE (VDC)	SPQ	BOX DIMENSIONS L x W x H (mm)
Bulk (long lead L ≥ 25.4 mm)	20 to 47	all	all	1000	245 x 120 x 65
				1000	
	53 to 75			500	
	84 to 96			250	
Tape and reel	≤ 47	≤ 6.4	< 500	2500	370 x 370 x 60
			500 ≤ WV ≤ 2000	2000	
		3000	1000		
		≥ 7.5	all	1000	
Ammopack	≤ 47	≤ 6.4	< 500	2000	335 x 240 x 50
			500 ≤ WV < 2000	2000	335 x 290 x 50
		2000 and 3000	1500	360 x 330 x 55	
		≥ 7.5	all		1500

Note

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



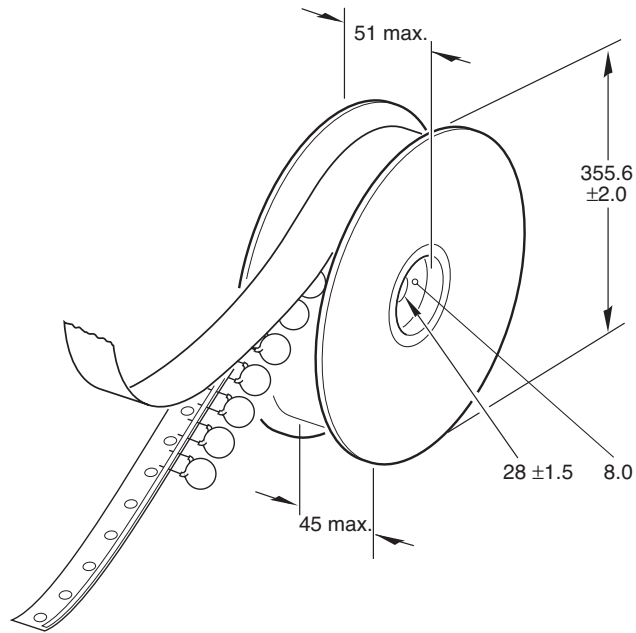
Kinked capacitors on tape, lead spacing 5.0 mm (0.2 inch)

DIMENSIONS OF TAPE		DIMENSIONS (mm)	
SYMBOL	PARAMETER	NOMINAL	TOLERANCE
		D	body diameter
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
Δh	component alignment	0	± 1.0
Δs	deviation along tape, left or right	0	± 1.0
W	tape width	18.0	+ 1.0
W ₀	hold-down tape width	5.0 minimum	-
W ₁	hole position	9.0	+ 0.75
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 snapped 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	-

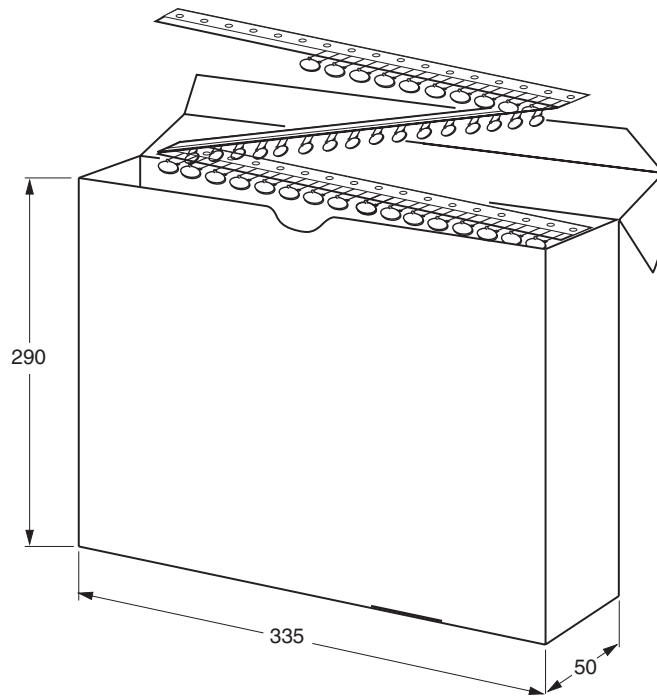
Notes

1. Cumulative pitch error: ± ≤ 1 mm /20 pitches.
2. Obliquity maximum 3°.

REEL AND TAPE DATA in millimeters



Reel with capacitors on tape.



Ampopack with capacitors on tape.