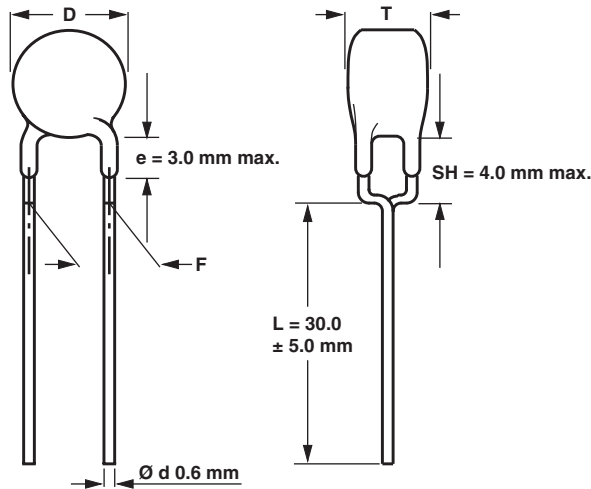


Ceramic Disc Capacitors

Safety Standard Approved Disc Capacitors



Capacitors with 10 mm lead spacing

DISSIPATION FACTOR

2.5 % maximum

CATEGORY TEMPERATURE RANGE

- 40 °C to + 125 °C

TEMPERATURE CHARACTERISTICS

See Ordering Information tables

CLIMATIC CATEGORY

40/125/21 according to EN60068-1

COATING

According to UL 94V-0

Epoxy resin, isolating, flame retardant

WEEE/RoHS

Components in accordance with EU Directive 2002/95/EC

APPROVALS

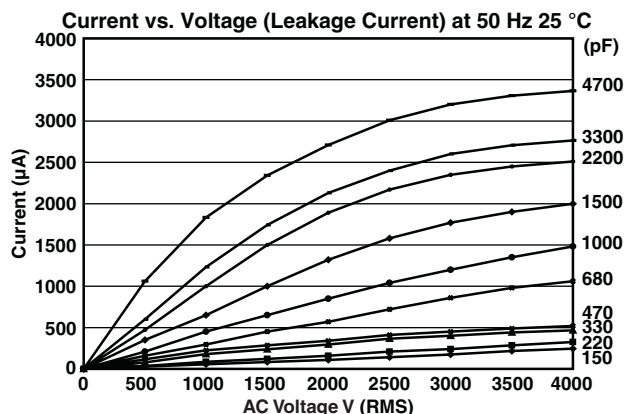
ENEC VDE (DE1-32019)

UL 1414 file E183844

CSA 22.2

PACKAGING

Bulk; Tape and reel; Taped ammpack



FEATURES

- Complying with "EN 132 400" and "IEC 60384-14, 2nd edition, including amendment 1.1995"
- High reliability
- Vertical (inline) kinked or straight leads

APPLICATIONS

- X1, Y1 according to IEC 60384-14.2
- Across-the-line
- Line by-pass
- Antenna coupling

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 may be supplied with vertical (inline) kinked leads having a lead spacing of 10.0 mm. Encapsulation is made of flammable resistant epoxy resin in accordance with "UL94V-0".

CAPACITANCE RANGE

10 pF to 4700 pF

RATED VOLTAGE U_R

IEC 60384-14.2:

(X1): 760 V (AC), 50 Hz

(Y1): 500 V (AC), 50 Hz

250 V (AC), 50/60 Hz, UL1414 and CSA 22.2

TEST VOLTAGE

Component Test (100 %):

4000 V (AC), 50 Hz, 2 s

Random sampling test (destructive test):

4000 V (AC), 50 Hz, 60 s

Voltage proof of coating (destructive test):

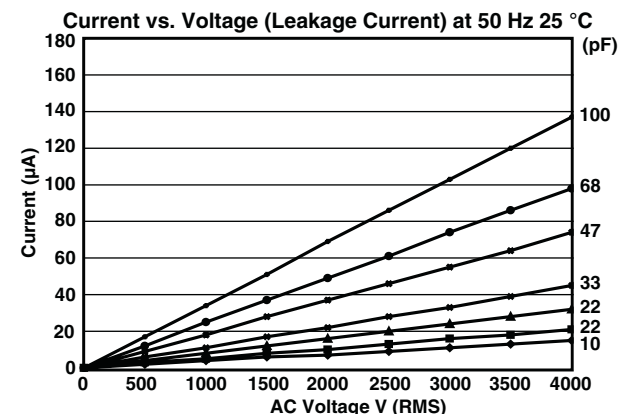
4000 V (AC), 50 Hz, 60 s

INSULATION RESISTANCE

10 000 MΩ minimum

TOLERANCE OF CAPACITANCE

± 20 % (Code M); ± 10 % (Code K)



The capacitors meet the essential requirements of "EIA 198". Unless stated otherwise all electrical values apply at an ambient temperature of 25 ± 3 °C, at normal atmospheric conditions.

ORDERING INFORMATION

C (pF)	TOL. (%)	TEMP. COEFFICIENT	BODY DIAMETER D max. (mm)	BODY THICK T max. (mm)	LEAD SPACING F (mm)	CLEAR TEXT CODE	
						15 th DIGIT (*): T = REEL; U = AMMO; 3 = BULK ⁽¹⁾	
10	± 10	U2J (N750)	8	5.0	10.0	VY1100K31U2JQ6*V0	
15						VY1150K31U2JQ6*V0	
22						VY1220K31U2JQ6*V0	
33		Y5S (2C3)				VY1330K31Y5SQ6*V0	
47						VY1470K31Y5SQ6*V0	
68						VY1680K31Y5SQ6*V0	
100						VY1101K31Y5SQ6*V0	
150						VY1151K31Y5SQ6*V0	
220						VY1221K31Y5SQ6*V0	
330						VY1331K31Y5SQ6*V0	
470	± 20	Y5U (2E3)				VY1471M31Y5UQ6*V0	
680						VY1681M31Y5UQ6*V0	
1000						9	VY1102M35Y5UQ6*V0
1500						10.5	VY1152M41Y5UQ6*V0
2200						12	VY1222M47Y5UQ6*V0
3300						15	VY1332M59Y5UQ6*V0
3900						15.5	VY1392M61Y5UQ6*V0
4700						16.0	VY1472M63Y5UQ6*V0

Notes:

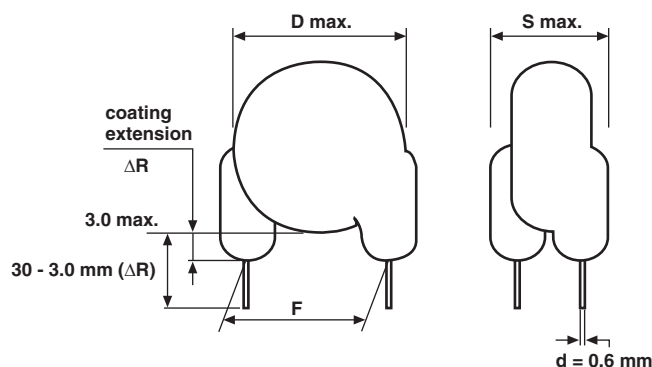
1. 15th digit of the clear text code number to be completed with the packaging code
- Straight leads are available on request
 - Coating extension ΔR valid for straight leads only
 - On request available: $\pm 10\%$ tolerance
 - On request available: Leadspacing 12.5 mm

LEADSPACING 10.0 mm**PACKAGING**

CAPACITANCE VALUE	SIZE CODE	BODY DIAMETER D max. (mm)	PACKAGING QUANTITIES		
			BULK	REEL	AMMO
10 pF to 2200 pF	31 ~ 47	12.0	1000	500	750
3300 pF to 4700 pF	51 ~ 63	16.0	500	500	750

Note:

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

STRAIGHT LEADS

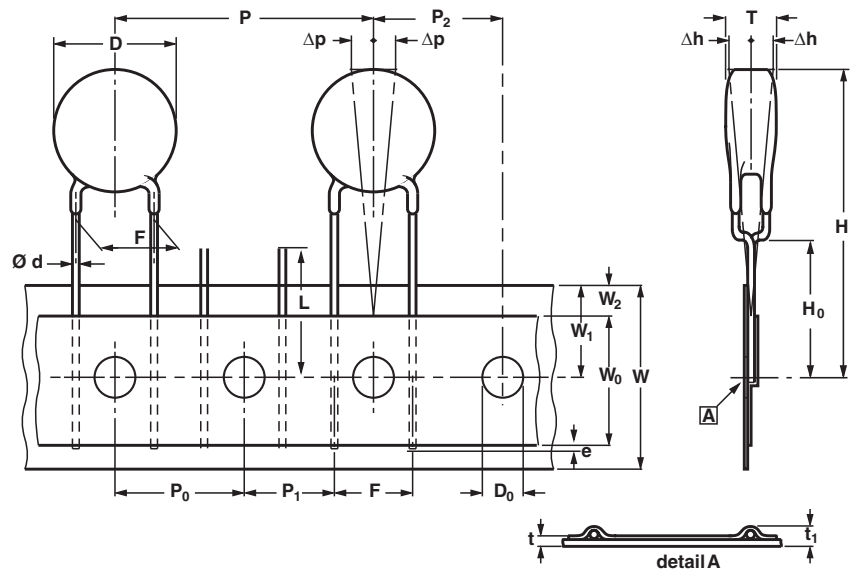


Fig. 2 Lead spacing 10 mm, sprocket hole pitch 25.04 mm for lead spacing

STANDARD RECOGNITION

IEC 60384 - 14/2nd Issue (1993) incl. Am.1 (1995) - Safety Tests

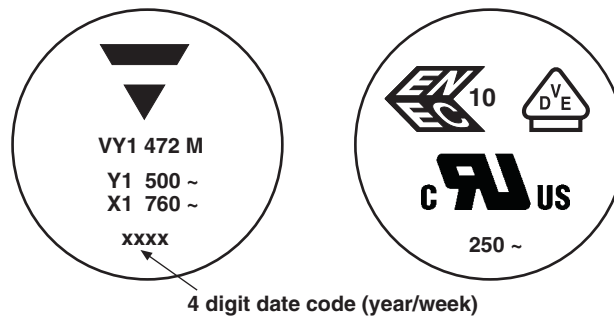
EN 132 400 (1994) - Safety Tests

UL 1414 - Across-the-line, antenna-coupling and line-by-pass component

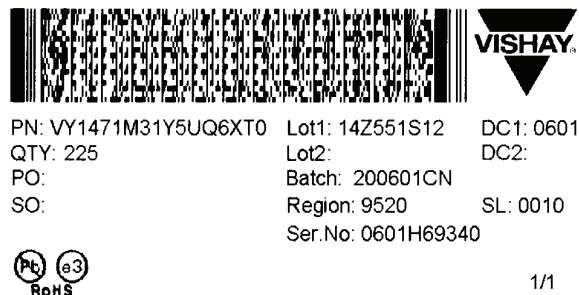
CSA C22.2 - Across-the-line, line to ground and antenna isolation capacitor

CCC - Chinese Safety Standard is available on request

MARKING: 2 SIDES (EXAMPLE)



LABEL (EXAMPLE)

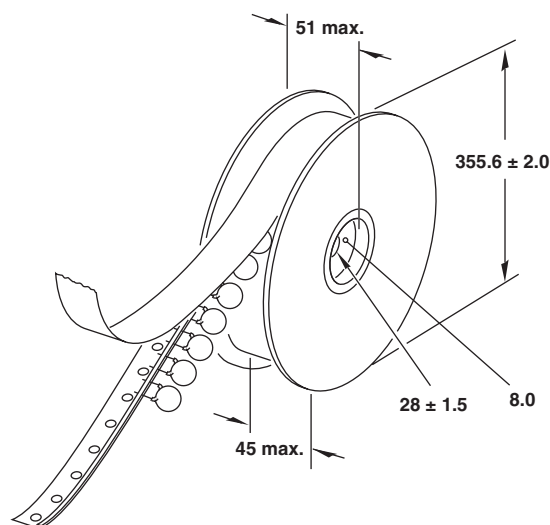


DIMENSIONS OF TAPE

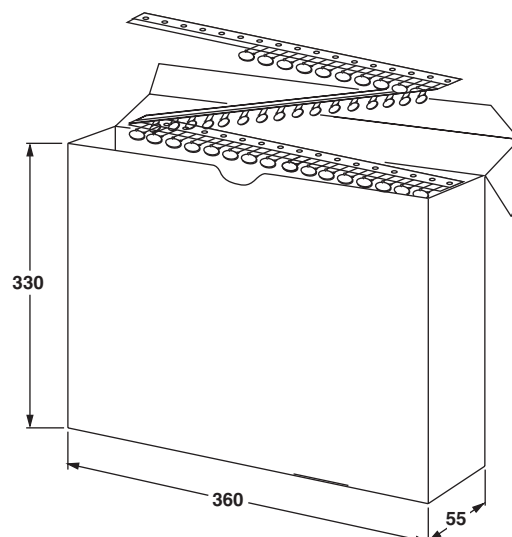
SYMBOL	PARAMETER	DIMENSIONS (mm)
		Fig. 2
D ⁽¹⁾	Body diameter	16.0 max.
d	Lead diameter	0.6 ± 0.05
P	Pitch of component	25.4 ± 1
P ₀ ⁽²⁾	Pitch of sprocket hole	12.7 ± 0.3
P ₁ ⁽³⁾	Distance, hole centre to lead	7.7 ± 1.0
P ₂ ⁽³⁾	Distance, hole to centre of component	12.7 ± 1.5
F	Lead spacing	10.0 + 0.6/- 0.4
Δh	Average deviation across tape	± 1.0 max.
ΔP	Average deviation in direction of reeling	± 1.0 max.
W	Carrier tape width	18.0 + 1 - 0.5
W ₀	Hold-down tape width	5.0 min.
W ₁	Position of sprocket hole	9.0 + 0.75 - 0.5
W ₂	Distance of hold-down tape	3.0 max.
H ₁	Maximum component height	40.0
H ₀	Height to seating plane (for kinked leads)	16.0 ± 0.5
H ₀	Height to seating plane (for straight leads)	20.0 ± 0.5
L	Length of cut leads	11.0 max.
l	Length of lead protrusion	1.0 max.
D ₀	Diameter of sprocket hole	4.0 ± 0.2
t	Total tape thickness	0.9 max.

Notes:

1. See ordering information table
2. Cumulative pitch error: ± 1 mm/20 pitches
3. Obliquity maximum 3°

REEL AND TAPE DATA in millimeters

Reel with capacitors on tape



Ampopack with capacitors on tape



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