

Miniature ceramic plate capacitors

Class 1 (non-flanged types)

FEATURES

- High-frequency circuits
- Temperature compensating
- High stability
- Space saving.

APPLICATIONS

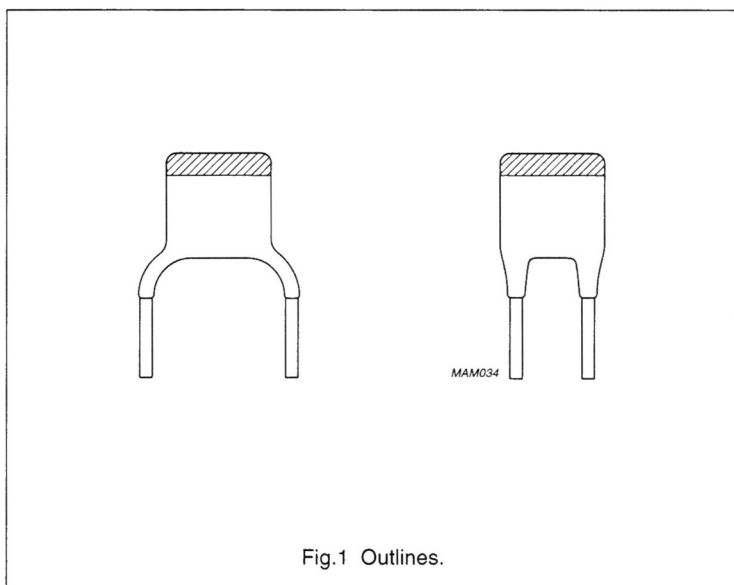
Ceramic plate capacitors without flange are not for current design projects. They are recommended for maintenance purposes only. The electrical properties are identical to capacitors with flanged leads.

DESCRIPTION

The capacitors consist of a thin rectangular ceramic plate, both sides of which are metallized. The tinned connecting leads are secured using a high melting point solder. The capacitors are encapsulated in epoxy lacquer, which is resistant to all commonly used cleaning solvents. They have small dimensions and narrow tolerances on the lead spacing. The electrical properties are characterized by low losses, a narrow tolerance on capacitance (± 0.25 pF or 2%), high stability and, owing to the absence of silver, an extremely good DC behaviour.

QUICK REFERENCE DATA

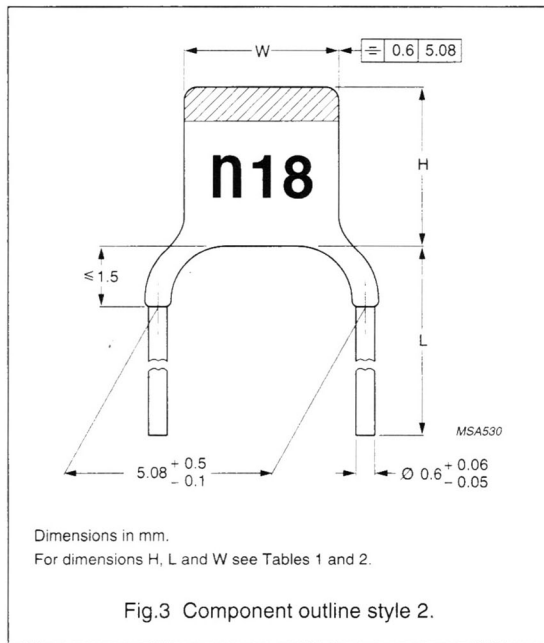
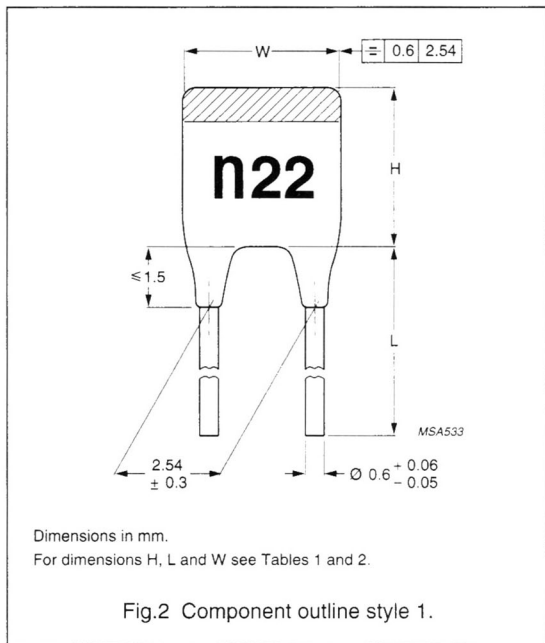
DESCRIPTION	VALUE
Capacitance range (E12 series)	0.56 to 560 pF
Rated DC voltage	100 V
Tolerance on capacitance	$\pm 2\%$ or ± 0.25 pF
Temperature coefficients	P100, NP0, N075, N150, N220, N330, N470, N750 and N1500
Sectional specification	IEC 384-8
Climatic category (IEC 68)	55/085/21



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MECHANICAL DATA



Marking

The temperature coefficient is indicated by a colour code in accordance with IEC and EIA recommendations. Capacitance value and voltage are indicated by a marking code in a contrasting colour on the body. Refer to the Tables of data sheet "Class 1, 100 V (DC) (flanged types)" for marking codes and colours.

Mounting

When bending, cutting or flattening, the leads should be relieved of the applied load by supporting them at the capacitor body.

Soldering conditions:

max. 265 °C, max. 10 s.

Lacquer on the leads

When the capacitors shown in Figs 2 and 3 are mounted on printed-circuit boards with a thickness of 1.5 mm and with holes of 1.3 mm diameter or on printed-circuit boards with a thickness of 1 mm and with holes of 0.8 mm diameter there will be no lacquer on the leads at the lower side of the board. For capacitors with maximum thickness greater than 2.3 mm and lead pitch of 5.08 mm, the lacquer on the leads extends less than 2 mm.

Physical dimensions

Table 1 Capacitor dimensions and mass

SIZE ⁽¹⁾	W ⁽²⁾ (mm)	H ⁽²⁾ (mm)	MASS (g)
I	3.6 (-1.1)	3.7 (-1.2)	≈0.14
IIA	3.9 (-1.4)	4.0 (-1.5)	≈0.15
IIB	4.5 (-1.8)	4.7 (-2.0)	≈0.16
III	5.3 (-1.8)	5.5 (-2.0)	≈0.17
IV	6.2 (-2.0)	6.4 (-2.2)	≈0.20
V	6.2 (-2.0)	8.6 (-2.6)	≈0.23

Notes

1. Unless indicated in the Tables of data sheet "Class 1, 100 V (DC) (flanged types)" the thickness of the capacitors does not exceed 2.3 mm. Capacitors exceeding this thickness have $H_{\max} = 4.5$ mm.
2. Tolerances are given between parentheses.

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PACKAGING

For details refer to this handbook, Chapter "Miniature ceramic plate capacitors", Section "General data".

ORDERING INFORMATION**Table 2** Catalogue numbers

PITCH P	LEAD DIAMETER d	STYLE	CATALOGUE NUMBERS ⁽¹⁾	
			L ≥ 15 mm	L = 6 +0/-2 mm
2.54 mm (0.1 in)	0.6 mm (0.024 in)	1	2222 631	2222 641
5.08 mm (0.2 in)	0.6 mm (0.024 in)	2	2222 638	2222 642

Note

1. Catalogue number to be completed by adding the 5-digit suffix for required capacitance value. Refer to the Tables of data sheet "Class 1, 100 V (DC) (flanged types)" for catalogue numbers.