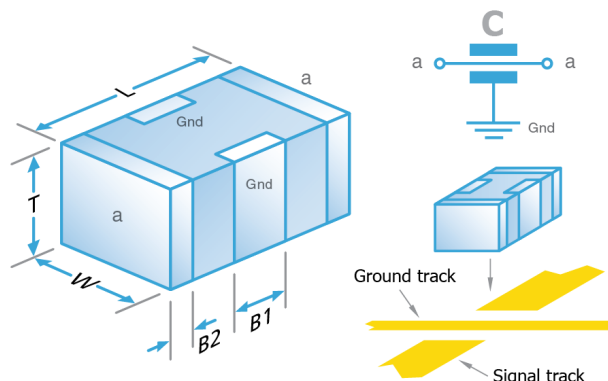


Part Number: 1206J1000221MCTE01

Description: 1206 100Vdc 220pF $\pm 20\%$ C0G/NP0 (1B)
(CTI ≥ 600)

A range of ceramic MLCC feedthrough 'C' filters. Internal electrodes conduct signals through the MLCC body, with the capacitance formed to ground pads on the side of the chip, providing low inductance and high performance. Available with a variety of termination options including FlexiCap™ (on X7R), the world's first commercially available flexible termination.



Mechanical Specification

Size Code	1206
Length (L1) in mm (")	3.2 ± 0.30 (0.126 $\pm$ 0.012)
Width (W) in mm (")	1.6 ± 0.20 (0.063 $\pm$ 0.008)
Thickness (T) in mm (")	1.1 ± 0.2 (0.043 $\pm$ 0.008)
Termination Bands (B2) in mm (")	0.50 ± 0.25 (0.02 $\pm$ 0.01)
Center (Ground) Band (B1) in mm (")	0.95 ± 0.30 (0.037 $\pm$ 0.012)
Termination Material	Nickel Barrier, Sn Plated Solder (RoHS compliant)
Solderability	IEC-60068-2-58
Packaging	7" Reel Horizontal Orientation, 2500 per reel

General Electrical Specification

Rated Voltage	100Vdc
Rated DC Current	300mA
DC Resistance	0.35 Ω
Nominal Capacitance Value	220pF
Capacitance Tolerance	$\pm 20\%$
Tangent of Loss Angle (Tan δ)	≤ 0.0015
Capacitance and Tan δ Test Conditions	1.0Vrms @ 1MHz
Voltage Proof	250Vdc
(Voltage applied for 5 secs max. @ 50mA max. charge current. 50% Max, RH)	
Min Insulation Resistance (IR)	100.00GOhm @ 100Vdc
Dielectric Classification	C0G/NP0 (1B) (CTI ≥ 600)
Rated Temperature Range	-55°C / +125°C
Maximum Capacitance Change over Temperature Range	No DC Voltage 0 $\pm$ 30ppm/°C Rated DC Voltage -
Climatic Category (IEC)	55/125/56
Ageing Characteristic	Zero

Knowles Precision Devices - Sales

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www.knowlescapacitors.com

This datasheet is for a standard item and is confirmed valid on the date generated, the latest published data for this part may differ and is available at <http://www.knowlescapacitors.com> or by contacting us.

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Data is correct to the best of our knowledge, errors and omissions excepted.

Date: Thursday, August 06, 2026

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Part Number: 1206J1000221MCTE01

Description: 1206 100Vdc 220pF $\pm 20\%$ C0G/NP0 (1B)
(CTI ≥ 600)

Environmental

RoHS Compliant to 2011/65/EC as amended by 2015/863/EU

Compliant

REACH Compliant

253 compliant

California Proposition 65

No exposure risk

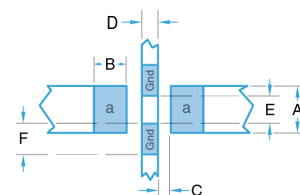
Board Layout

Knowles' conventional 3-terminal chip capacitors should be mounted using the pad design supplied.

It has been developed in conjunction with our customers over the years and has been shown to yield successful soldering results. It incorporates factors that have been shown to reduce mechanical stress, such as reducing the pad width to less than the chip width, but the position of the chip on the board should also be considered.

Note that for optimum noise rejection the ground pads should be placed on the circuit board ground plane, or connected to the ground plane by the shortest and widest route possible.

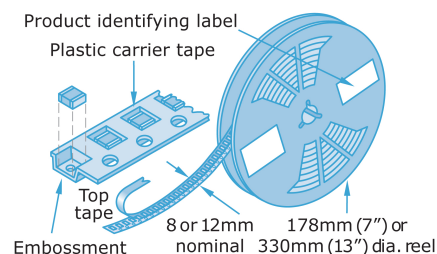
1206		
A	1.20mm	0.047"
B	0.90mm	0.035"
C	0.60mm	0.024"
D	0.80mm	0.031"
E	1.00mm	0.039"
F	0.70mm	0.028"



Packaging

Tape packaging information for tape-and-reel parts:

Tape and reel packing of surface mounting chip capacitors for automatic placement are in accordance with IEC60286-3.



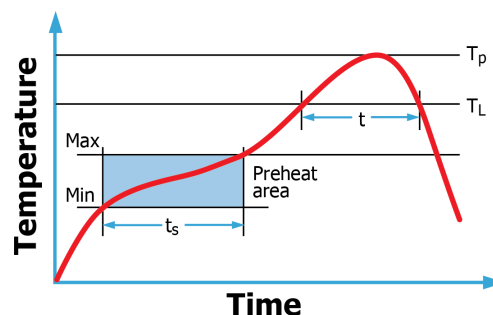
Soldering

Reflow solder in accordance with IPC-A-610.
Recommended reflow profile as laid down in IPC/JEDEC J-STD-020.

Wave soldering is also possible, but care must be taken for case sizes 1210 and larger and component thickness $> 1.0\text{mm}$. Trials are encouraged.

Hand soldering is not recommended and can lead to component damage through thermal shock.

Application notes with mounting and handling guidance are available on request.



Compex

DLI

Johanson MFG

Novacap

Syfer

Voltronics

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