

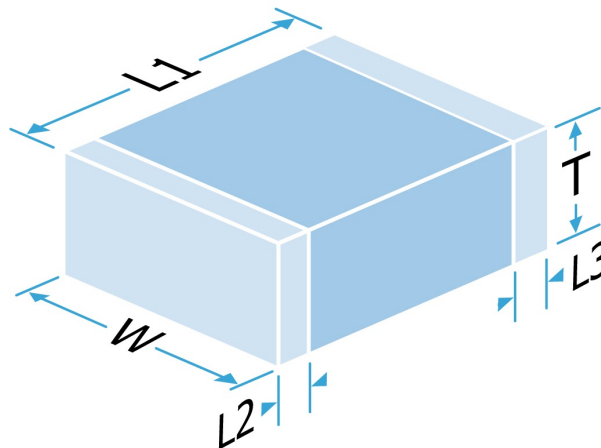
Multilayer Ceramic Chip Capacitor

Part Number: 0805J1K00472KXT

Description: 0805 1000V 4.7nF $\pm 10\%$ X7R (2R1)

A range of X7R MLC capacitors to suit a variety of applications. Available in 0402 to 8060 chip sizes with capacitance values up to 22 μ F as standard. A variety of termination options are available, including FlexiCap™, the world's first commercially available flexible termination.

Parts with WS2 suffix use StackiCap™ technology.
Parts with NC suffix code must be conformally coated after mounting (including between board and chip) to prevent flashover.



Mechanical Specification

Size Code	0805
Length (L1) in mm (")	2.0 $\pm$ 0.20 (0.079 $\pm$ 0.008)
Width (W) in mm (")	1.25 $\pm$ 0.20 (0.049 $\pm$ 0.008)
Thickness (T) in mm (")	1.37 Max (0.054 Max)
Minimum Termination Band (L2,L3) in mm (")	0.25 (0.010)
Maximum Termination Band (L2,L3) in mm (")	0.75 (0.030)
Termination Material	Nickel Barrier, Sn Plated Solder (RoHS compliant)
Solderability	IEC-60068-2-58
Packaging	7" Reel Horizontal Orientation, 3000 per reel

General Electrical Specification

Rated Voltage	1000Vdc
Nominal Capacitance Value	4.7nF
Capacitance Tolerance	$\pm 10\%$
Tangent of Loss Angle (Tan δ)	≤ 0.025
Capacitance and Tan δ Test Conditions	1.0Vrms @ 1kHz
Voltage Proof	1200Vdc
(Voltage applied for 5 secs max. @ 50mA max. charge current)	
Min Insulation Resistance (IR)	100.00GOhm @ 100Vdc
Dielectric Classification	X7R (2R1)
Rated Temperature Range	-55°C / +125°C
Maximum Capacitance Change over Temperature Range	No DC Voltage $\pm 15\%$ Rated DC Voltage -
Climatic Category (IEC)	55/125/56
Ageing Characteristic	<2% per decade

Knowles Precision Devices - Sales

Europe: KPD-Europe-sales@knowles.com

Asia: KPD-Asia-sales@knowles.com

USA: KPD-NA-sales@knowles.com

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: Wednesday, March 13, 2019

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Description: 0805 1000V 4.7nF $\pm 10\%$ X7R (2R1)

Environmental

RoHS Compliant to 2011/65/EC as amended by 2015/863/EU	Compliant
REACH Compliant	191 compliant
California Proposition 65	No exposure risk

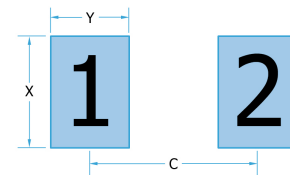
Board Layout

Knowles' conventional 2-terminal chip capacitors can generally be mounted using pad designs in accordance with international specification IPC-7351, Generic Requirements for Surface Mount Design and Land Pattern Standards, but there are some other factors that have been shown to reduce mechanical stress, such as reducing the pad width to less than the chip width. In addition, the position of the chip on the board should be considered.

Some high voltage parts may require modifications to the board layout and/or the addition of a conformal coating to prevent flashover. Refer to application note AN0043 for further information.

IPC-7351 pad design

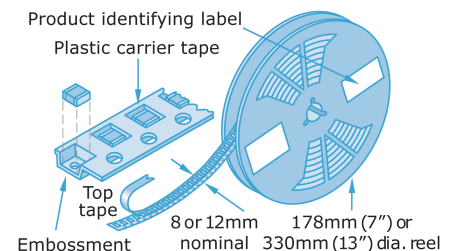
	0805	
C	1.80mm	0.071"
Y	1.15mm	0.045"
X	1.45mm	0.057"



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

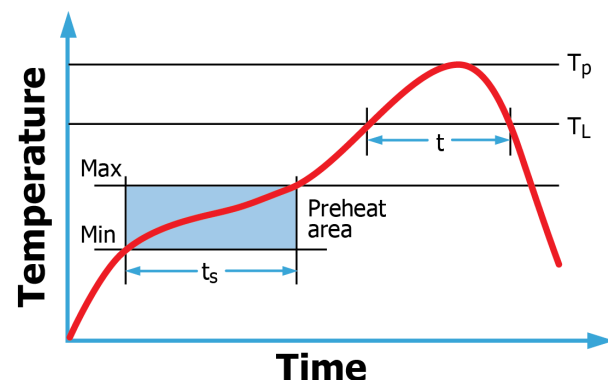
Reflow solder in accordance with IPC-A-610. Recommended reflow profile as laid down in IPC/JEDEC J-STD-020.

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

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

PdAg terminations are primarily intended for conductive epoxy attachment - they may be suitable for soldering but trials are recommended.

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



Compex

DLI

Johanson MFG

Novacap

Syfer

Voltronics

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