

ProtectiCap™ MLCCs for high voltage applications

X7R MLCCs

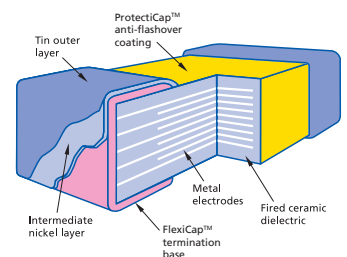
MLCCs are particularly suitable for high voltage applications where small size is required. For standard high voltage capacitors a coating may be required to be applied post-soldering, to minimise the risk of flashover from one termination on the chip to the other. By contrast, the new ProtectiCap™ high voltage range has been introduced to specifically address this issue. The integral coating minimises the risk of flashover without any requirement for the customer to apply conformal coating after soldering.

FEATURES

- High voltage flashover resistance
- High voltage / small case size, for example 3kV in 1206
- Voltage ranges up to 5kV
- Case sizes from 1206 to 2220

APPLICATIONS

- Power supplies
- Lighting ballasts
- Inverters / DC link
- General high voltage circuits



Specification

Capacitance Values

X7R

100pF - 33nF

See overleaf for full list of values

Electrical

Operating Temperature

-55°C to +125°C

Temperature Coefficient of Capacitance (Typical)

±15%

Insulation Resistance

Time constant (Ri xCr) (whichever is the least)

100GΩ or 1000s

Ageing Rate

Typical 1% per time decade

Mechanical

Termination Material

See ordering information below

Solderability

IEC 60068-2-58. Passed 3 times reflow profile defined in J-STD-020

Lead Free Soldering

This range is fully compliant with the RoHS and WEEE directives and parts are compatible with lead free solders.

Climatic Category

55/125/56

Reeled Quantities

See Capacitance tables overleaf

Ordering Information

1206	P	2K0	0102	K	X	T
Chip size	Termination	Voltage	Capacitance in picofarads (pF)	Capacitance tolerance	Dielectric	Packaging
1206 1210 1808 1812 2220	P = ProtectiCap™ (FlexiCap™ termination base with Ni barrier, 100% matte tin plating)	2K0 = 2000V 2K5 = 2500V 3K0 = 3000V 4K0 = 4000V 5K0 = 5000V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of 0's following Example 0102=1000pF	J = ±5% K = ±10% M = ±20%	X = X7R	T = 178mm (7") reel R = 330mm (13") reel B = Bulk pack - tubs

ProtectiCap™

Maximum Capacitance Values

Chip Size	1206	1210	1808	1812	2220
Min Cap	100pF	330pF	100pF	150pF	220pF
2000V	3.3nF	5.6nF	5.6nF	12nF	33nF
2500V	2.7nF	4.7nF	4.7nF	8.2nF	22nF
3000V	1.5nF	3.3nF	3.3nF	4.7nF	10nF
4000V	-	-	2.2nF	3.3nF	6.8nF
5000V	-	-	-	-	4.7nF
7" Reel	2,500	2,000	1,500	500/1,000*	500/1,000*
13" Reel	10,000	8,000	6,000	2,000/4,000*	2,000/4,000*

NOTE: Other capacitance values may become available, please contact our Sales Office if you need values other than those shown in the above table. For dimensions and soldering information, please go to our website (www.syfer.com) or see our MLC Catalogue.

*Reel quantity depends on chip thickness. Please contact sales office.



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