



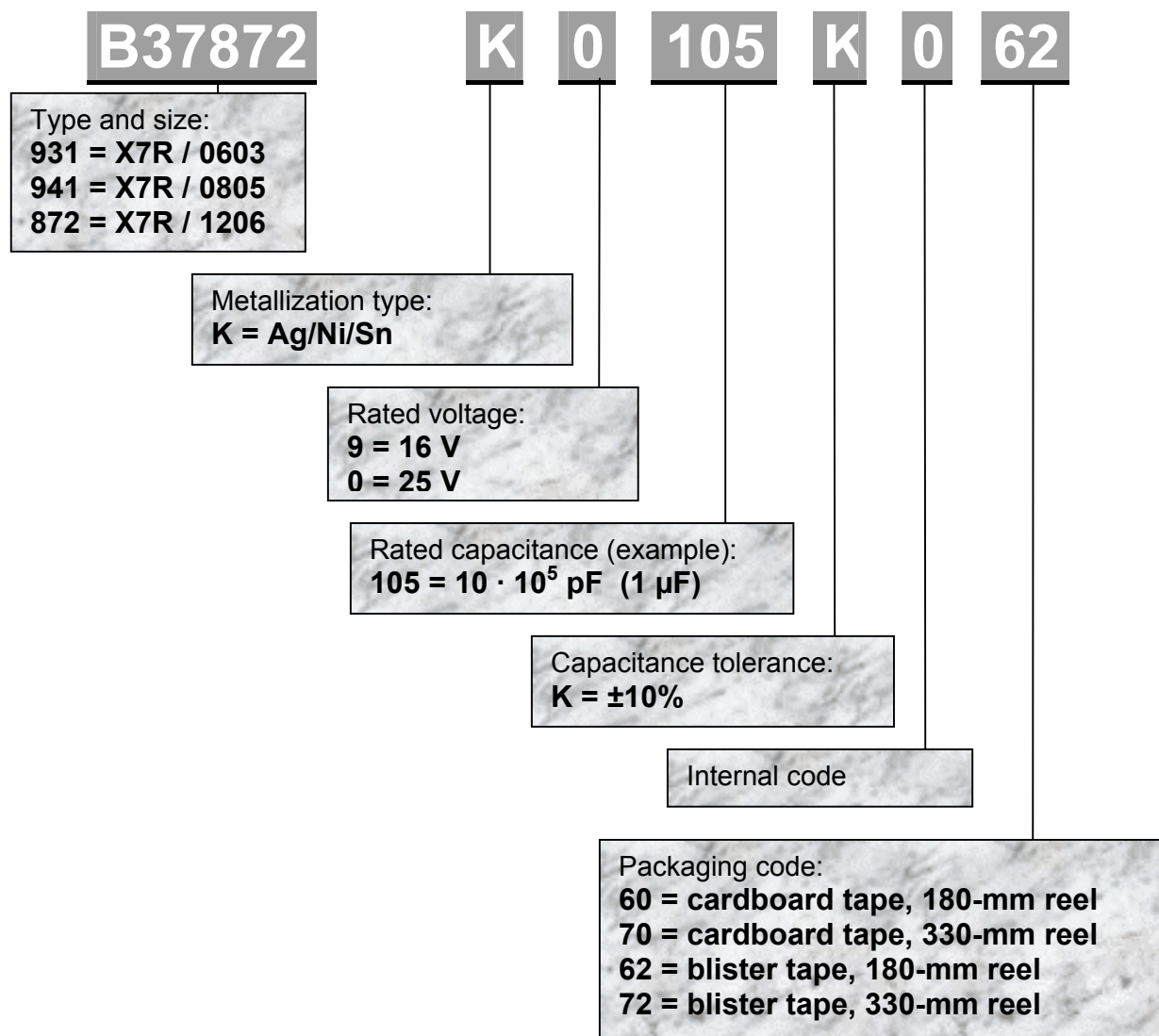
## Multilayer ceramic capacitor

HighCV, X7R, 16 V and 25 V

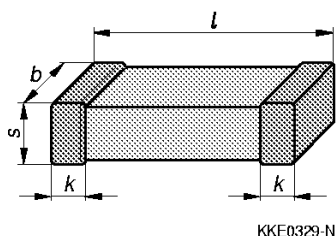
**Series/Type:** Chip  
**Ordering code:** B37\*\*\*K

Date: 15.07.2005  
Version: 1

## Ordering code



## Dimensional drawing



Size [inch / mm]	l [mm]	b [mm]	s [mm]	k [mm]
<b>0603 / 1608</b>	1.6 ±0.15	0.80 ±0.1	0.8 ±0,1	0.10 – 0.4
<b>0805 / 2012</b>	2.0 ±0.20	1.25 ±0.15	1.35 max.	0.13 – 0.75
<b>1206 / 3216</b>	3.2 ±0.20	1.60 ±0.15	1.2 ±0.1	0.25 – 0.75

see also "Ordering codes and chip thickness", dimensions in accordance to CECC 32101-801

## Electrical data

Temperature characteristic:	X7R
Climatic category (IEC 60068-1):	55/125/56
Standard:	EIA
Dielectric:	Class 2
Rated voltage:	16 V / 25 V
Capacitance <sup>1)</sup> test conditions	
Test frequency:	(1.0 ±0.2) kHz
Test voltage:	(1.0 ±0.2) V <sub>RMS</sub>
Max. relative capacitance change:	±15%
Dissipation factor tanδ (limit value):	< 25 · 10 <sup>-3</sup>
Time constant τ at +25 °C:	> 500 s
Operating temperature range:	-55 °C ... +125 °C
<b>Capacitance values:</b>	<b>220 nF ... 2.2 μF</b>

<sup>1)</sup> Subject to aging, please see "General Technical Information" at [www.epcos.com/ceramic\\_capacitors](http://www.epcos.com/ceramic_capacitors) or the data book "Multilayer Ceramic Capacitors".

## Ordering codes and chip thickness

Case size [inch]	C <sub>R</sub> [μF]	Ordering code	Thickness [mm]	Packing quantity	
				∅ 180-mm reel [pcs]	∅ 330-mm reel [pcs]
<b>16 V types</b>					
0603	0.220	B37931K9224K060*	0.8 ±0.1	4000	16000
0805	0.220	B37941K9224K060*	0.8 ±0.1	4000	16000
	0.330	B37941K9334K060*	0.8 ±0.1	4000	16000
	0.470	B37941K9474K060*	0.8 ±0.1	4000	16000
	1.0	B37941K9105K062**	1.25 ±0.1	3000	12000
1206	1.0	B37872K9105K062**	1.2 ±0.1	3000	12000
	2.2	B37872K9225K062**	1.2 ±0.1	3000	12000

Size [inch]	C <sub>R</sub> [μF]	Ordering code	Thickness [mm]	Packing quantity	
				∅ 180-mm reel [pcs]	∅ 330-mm reel [pcs]
<b>25 V types</b>					
0603	0.220	B37931K0224K060*	0.8 ±0.1	4000	16000
0805	0.220	B37941K0224K060*	0.8 ±0.1	4000	16000
	0.330	B37941K0334K060*	0.8 ±0.1	4000	16000
	0.470	B37941K0474K060*	0.8 ±0.1	4000	16000
	1.0	B37941K0105K062**	1.25 ±0.1	3000	12000
1206	1.0	B37872K0105K062**	1.2 ±0.1	3000	12000
	2.2	B37872K0225K062**	1.2 ±0.1	3000	12000

- \* Ordering Code Example      Standard tolerance:      ± 10%  
    Standard packaging:      Cardboard tape, 180-mm reel
- \*\* Ordering Code Example      Standard tolerance:      ± 10%  
    Standard packaging:      Blister tape, 180-mm reel

## Further information

Please see General Technical Information at [www.epcos.com/ceramic\\_capacitors](http://www.epcos.com/ceramic_capacitors) or the data book "Multilayer Ceramic Capacitors" for further information on:

- Soldering directions
- Taping and packing
- Surface mounting instructions
- Effects of mechanical stress

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