

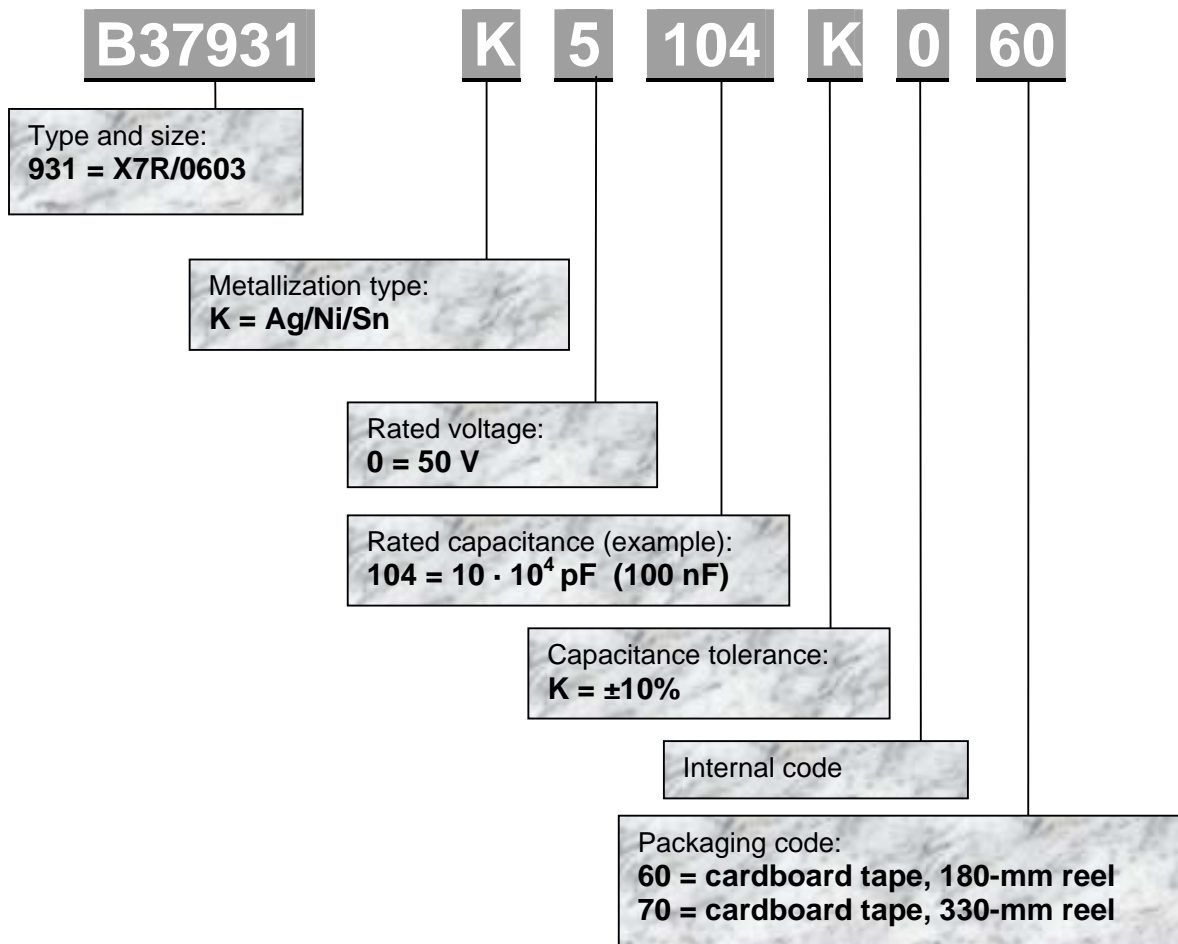


Multilayer ceramic capacitor

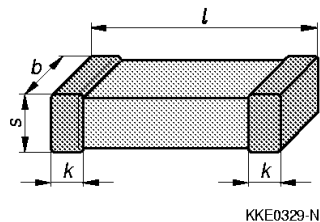
HighCV, X7R 0603 50 V

Series/Type: Chip
Ordering code: B37931K5104K0**
Date: 25.10.2005
Version: 1

Ordering code



Dimensional drawing



Size [inch / mm]	l [mm]	b [mm]	s [mm]	k [mm]
0603 / 1608	1.6 ±0.15	0.8 ±0.10	0.8 ±0.10	0.1 – 0.4

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:	50 V
Capacitance ¹⁾ test conditions	
Test frequency:	(1.0 ±0.2) kHz
Test voltage:	(1.0 ±0.2) V _{RMS}
Max. relative capacitance change:	±15%
Dissipation factor tanδ (limit value):	< 25 · 10 ⁻³
Time constant τ at +25 °C:	> 500 s
Operating temperature range:	-55 °C ... +125 °C
Capacitance value:	100 nF

¹⁾ Subject to aging, please see “General Technical Information” at www.epcos.com/ceramic_capacitors or the databook “Multilayer Ceramic Capacitors”.

Ordering codes and chip thickness

Size [inch]	C _R [nF]	Ordering code	Thickness [mm]	Packing quantity	
				Ø 180-mm reel [pcs]	Ø 330-mm reel [pcs]
0603	100	B37931K5104K060*	0.8 ±0.1	4000	16000

* Ordering code example Standard tolerance: ±10%
 Standard packaging: Cardboard tape, 180-mm reel

Further information

Please see General Technical Information at 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

Cautions and warnings

- Derating: A "state of the art" application design is essential to achieve failures rates at ppb level. Do not use designs based on 100% of specified rated values.
- AC applications may damage MLCC on a much lower level than DC voltage due to power dissipation losses.
- Mechanical stress - Please note EPCOS "General Technical Information", "Surface mounting instructions" and information about the effect of mechanical stress.
- ESD - EPCOS recommends the use of varistors.
- Further processing - care must be taken using moulding processes.
- Combined stresses - the total stress (e.g. DC voltage, AC ripple, pulses and temperature) has to be taken into account to estimate reliability of MLCC.

Important notes

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