



Features

- Extremely high volumetric efficiency
- Non-linear capacitance change

Applications

- Blocking
- Coupling
- Decoupling
- Interference suppression

Terminals

- For soldering:
silver-nickel-tin
- For conductive adhesion:
silver-nickel

Packing

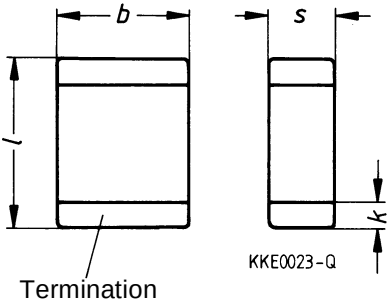
- Taping: blister and cardboard,
for details refer to chapter
“Taping and Packing”, [page 105](#).
- Bulk case for sizes 0603, 0805
and 1206, for details [cf. page 107](#).

Marking

Upon request

Maximum ratings

Climatic category
in accordance with IEC 68-1: 30/85/56



Dimensions (mm)

Size	<i>l</i>	<i>b</i>	<i>s</i>	<i>k</i> ¹⁾
0402	1,0 ± 0,1	0,5 ± 0,05	0,5 ± 0,05	0,2
0603	1,6 ± 0,15	0,8 ± 0,1	0,8 ± 0,1	0,3
0805	2,0 ± 0,2	1,25 ± 0,15	1,3 max.	0,5
1206	3,2 ± 0,2	1,6 ± 0,15	1,3 max.	0,5
1210	3,2 ± 0,2	2,5 ± 0,2	1,3 max.	0,5
1812	4,5 ± 0,2	3,2 ± 0,2	1,3 max.	0,5
2220	5,7 ± 0,2	5,0 ± 0,2	1,3 max.	0,5

For reduced height refer to slim-line
capacitors, [page 55](#).

Available capacitance tolerances

$\Delta C_R / C_R = \pm 20\%$, symbol: M

Rated voltage values

$V_R = 25 \text{ V}, 50 \text{ V}$ ²⁾

1) Tolerances in accordance with CECC 32 101-801.
2) Also suitable for 63 V applications.

Ordering codes for standard chip capacitors, Z5U(Y5U)/2F4, 25 Vdc, AgNiSn terminals

Size	0402	0603	0805	1206	
C_R	Ordering code ¹⁾				
	B37922-	B37932-	B37942-	B37873-	
2,2 nF	-K0222-M60 ▲				
3,3 nF	-K0332-M60 ▲				
4,7 nF	-K0472-M60 ▲				
6,8 nF	-K0682-M60 ▲				
10 nF	-K0103-M60 ▲				
15 nF					
22 nF		-K0223-M60 ○			
33 nF		-K0333-M60 ○			
47 nF		-K0473-M60 ○	-K0473-M60 □		
68 nF		-K0683-M60 ○	-K0683-M60 □		
100 nF		-K0104-M60 ○	-K0104-M60 □		
150 nF			-K0154-M60 ○	-K0154-M62 ○	
220 nF			-K0224-M62 ◆	-K0224-M62 ○	
330 nF			-K0334-M62 ◆	-K0334-M62 ○	
470 nF				-K0474-M62 ◆	
680 nF				-K0684-M62 ◆	
1,0 μF				-K0105-M62 ◆	

Chip thickness: ▲: $0,5 \pm 0,05$ mm □: $0,6 \pm 0,1$ mm
 ○: $0,8 \pm 0,1$ mm ◆: $1,2 \pm 0,1$ mm

1) The tables contain the ordering code for chip capacitors, $V_R = 25$ Vdc
 – with a capacitance tolerance of ± 20 %
 – in the respective standard packing:
 blister tape (last two digits of ordering code: 62) or cardboard tape (last two digits of ordering code: 60) on 180 mm diameter reels. For other versions refer to "Delivery Modes and Ordering Code", [page 113](#).

Ordering codes for standard chip capacitors, Z5U(Y5U)/2F4, 50 Vdc, AgNiSn terminals

Size	0603	0805	1206	
C_R	Ordering code ¹⁾			
	B37932-	B37942-	B37873-	
10 nF	-K5103-M60 ○	-K5103-M60 □		
15 nF	-K5153-M60 ○	-K5153-M60 □		
22 nF	-K5223-M60 ○	-K5223-M60 □		
33 nF	-K5333-M60 ○	-K5333-M60 □		
47 nF	-K5473-M60 ○	-K5473-M60 □	-K5473-M62 ○	
68 nF		-K5683-M62 ○	-K5683-M62 ○	
100 nF		-K5104-M62 ○	-K5104-M62 ○	
150 nF		-K5154-M62 ◆	-K5154-M62 ○	
220 nF			-K5224-M62 ○	
330 nF			-K5334-M62 ◆	
470 nF			-K5474-M62 ◆	

Size	1210	1812	2220	
C_R	Ordering code ¹⁾			
	B37951-	B37954-	B37957-	
220 nF	-K5224-M62 ○			
330 nF	-K5334-M62 ○			
470 nF	-K5474-M62 ○	-K5474-M62 ◆		
680 nF	-K5684-M62 ◆	-K5684-M62 ◆		
1 μF	-K5105-M62 ◆	-K5105-M62 ◆	-K5105-M62 ◆	
1,5 μF		-K5155-M62 ◆	-K5155-M62 ◆	
2,2 μF			-K5225-M62 ◆	
3,3 μF			-K5335-M62 ◆	
4,7 μF			-K5475-M62 ◆	

Chip thickness: □: $0,6 \pm 0,1$ mm

○: $0,8 \pm 0,1$ mm

◆: $1,2 \pm 0,1$ mm

1) The tables contain the ordering code for chip capacitors, $V_R = 50$ Vdc

– with a capacitance tolerance of ± 20 %

– in the respective standard packing:

blister tape (last two digits of ordering code: 62) or cardboard tape (last two digits of ordering code: 60) on 180 mm diameter reels. For other versions refer to “Delivery Modes and Ordering Code”, [page 113](#).

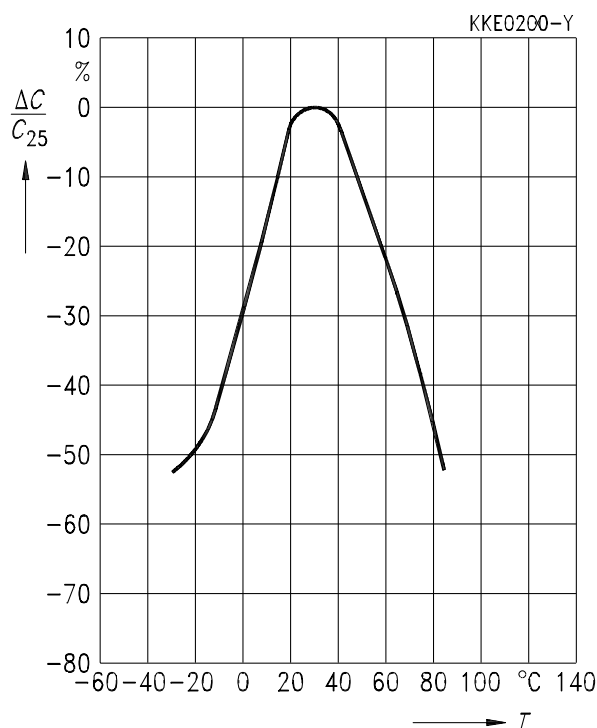
**Ordering codes for chip capacitors,
Z5U(Y5U)/2F4, 25 V/50 Vdc, AgNiSn terminals, bulk case packing**

Size	0603	0603	0805	1206	
V _R	25 V	50 V	50 V	50 V	
C _R	Ordering code ¹⁾				
	B37932-	B37932-	B37942-	B37873-	
10 nF		-K5103-M01	-K5103-M01		
15 nF		-K5153-M01	-K5153-M01		
22 nF	-K0223-M01	-K5223-M01	-K5223-M01		
33 nF	-K0333-M01	-K5333-M01	-K5333-M01		
47 nF	-K0473-M01	-K5473-M01	-K5473-M01	-K5473-M01	
68 nF	-K0683-M01		-K5683-M01	-K5683-M01	
100 nF	-K0104-M01			-K5104-M01	
150 nF				-K5154-M01	

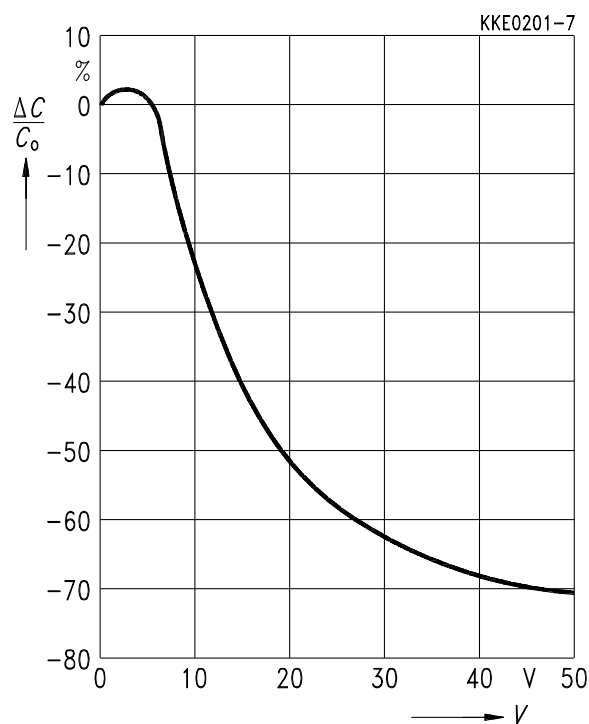
1) The tables contain the ordering code for chip capacitors, V_R = 25 Vdc or 50 Vdc, with a capacitance tolerance of ± 20 %.
For other versions refer to "Delivery Modes and Ordering Code", [page 113](#).

Characteristics

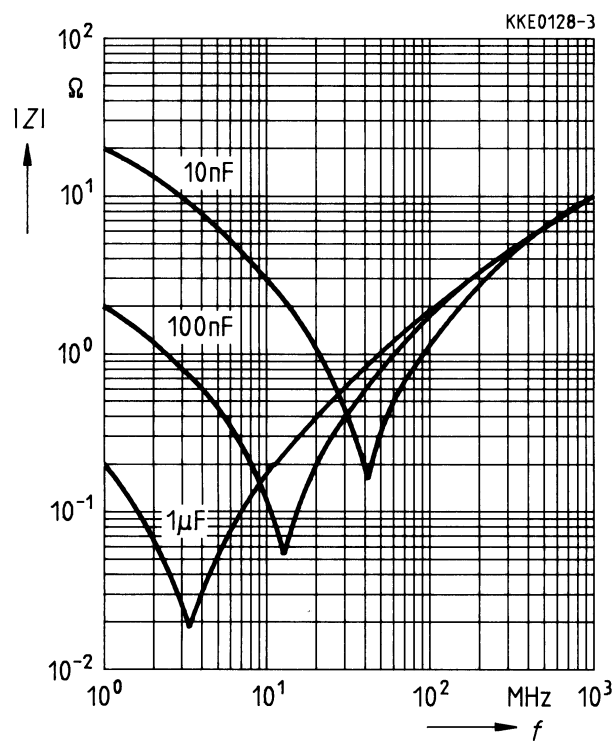
Capacitance change $\Delta C/C_{25}$ versus temperature T



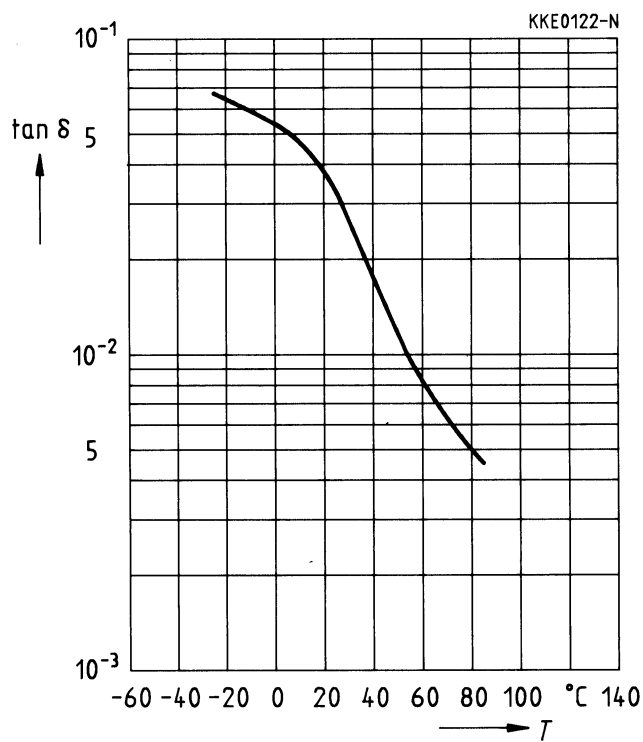
Capacitance change $\Delta C/C_0$ versus superimposed dc voltage V



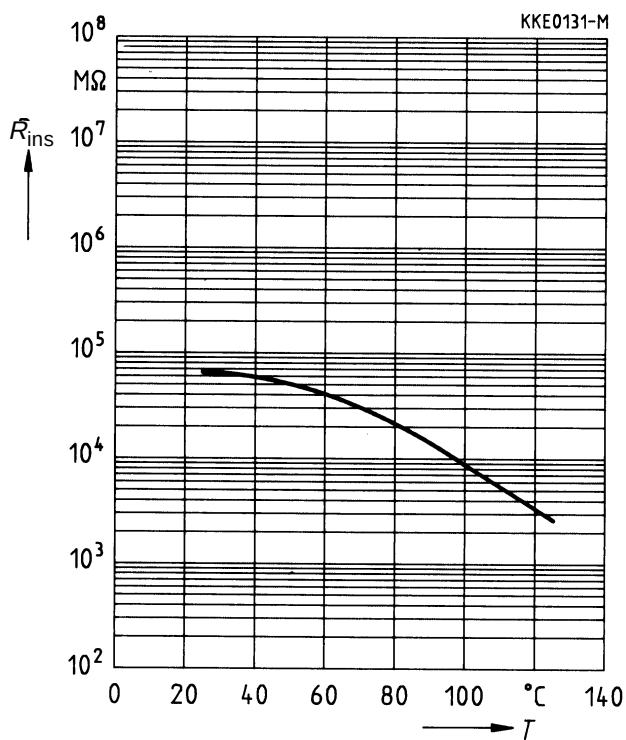
Impedance $|Z|$ versus frequency f



Dissipation factor $\tan \delta$ versus temperature T



Insulation resistance R_{ins} versus temperature T



Capacitance change $\Delta C/C_1$ versus time t

