

**Features**

- Good thermal stability
- High insulation resistance
- Low dissipation factor
- Low inductance

**Applications**

- Resonant circuits
- Filter circuits
- Timing elements
- Coupling and filtering, particularly in RF circuits

**Terminations**

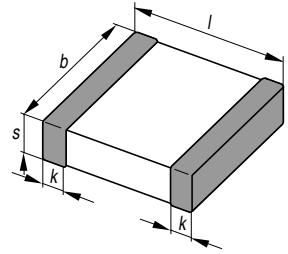
- For soldering:  
silver/nickel/tin
- For conductive adhesion:  
silver palladium

**Packing**

- Blister and cardboard tape, for details refer to chapter on "Taping and Packing", page 111.
- Bulk case for sizes 0603, 0805 and 1206, for details see page 114.

**Maximum ratings**

Climatic category  
in accordance with IEC 68-1: 55/125/56



KKE0272-V

**Dimensions (mm)**

| Size<br>inch/mm   | l            | b           | s          | k   |
|-------------------|--------------|-------------|------------|-----|
| <b>0402</b> /1005 | 1,0 ± 0,10   | 0,50 ± 0,05 | 0,5 ± 0,05 | 0,2 |
| <b>0603</b> /1608 | 1,6 ± 0,15*) | 0,80 ± 0,10 | 0,8 ± 0,10 | 0,3 |
| <b>0805</b> /2012 | 2,0 ± 0,20   | 1,25 ± 0,15 | 1,3 max.   | 0,5 |
| <b>1206</b> /3216 | 3,2 ± 0,20   | 1,60 ± 0,15 | 1,3 max.   | 0,5 |
| <b>1210</b> /3225 | 3,2 ± 0,30   | 2,50 ± 0,30 | 1,7 max.   | 0,5 |

\*) For bulk cases: 1,6 ± 0,1

Tolerances in acc. with CECC 32101-801

**Available capacitance tolerances**

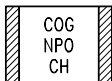
| Rated capacitance<br>$C_R$ | Tolerance  | Symbol   |
|----------------------------|--|----------|
| $C_R < 10 \text{ pF}$ :    | $\Delta C_R = \pm 0,1 \text{ pF}$                    | B        |
|                            | <b><math>\Delta C_R = \pm 0,25 \text{ pF}</math></b> | <b>C</b> |
|                            | $\Delta C_R = \pm 0,5 \text{ pF}$                    | D        |
| $C_R \geq 10 \text{ pF}$ : | $\Delta C_R / C_R = \pm 1 \%$                        | F        |
|                            | $\Delta C_R / C_R = \pm 2 \%$                        | G        |
|                            | <b><math>\Delta C_R / C_R = \pm 5 \%</math></b>      | <b>J</b> |
|                            | $\Delta C_R / C_R = \pm 10 \%$                       | K        |

Standard tolerances in bold print

F and G tolerance not available for 200 V

**Rated voltage values**

$V_R = 50 \text{ V}, 100 \text{ V}, 200 \text{ V}$



### Product range

|                                  | COG/NPO/CH           |  |              |  |              |  |  |              |  |  |              |  |
|----------------------------------|----------------------|--|--------------|--|--------------|--|--|--------------|--|--|--------------|--|
| Size <sup>1)</sup><br>inch<br>mm | 0402<br>1005         |  | 0603<br>1608 |  | 0805<br>2012 |  |  | 1206<br>3216 |  |  | 1210<br>3225 |  |
| Type                             | B37920               |  | B37930       |  | B37940       |  |  | B37871       |  |  | B37949       |  |
| V <sub>R</sub> (Vdc)             | 50                   |  | 50           |  | 50 100 200   |  |  | 50 100 200   |  |  | 50 200       |  |
| 1,0 pF                           | 1,0 pF               |  |              |  |              |  |  |              |  |  |              |  |
| 1,2 pF                           |                      |  |              |  |              |  |  |              |  |  |              |  |
| 1,5 pF                           |                      |  |              |  |              |  |  |              |  |  |              |  |
| 1,8 pF                           |                      |  |              |  |              |  |  |              |  |  |              |  |
| 2,2 pF                           | 2,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 2,7 pF                           | 3,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 3,3 pF                           | 4,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 3,9 pF                           | 5,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 4,7 pF                           | 6,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 5,6 pF                           | 7,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 6,8 pF                           | 8,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 8,2 pF                           | 9,0 pF <sup>2)</sup> |  |              |  |              |  |  |              |  |  |              |  |
| 10 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 12 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 15 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 18 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 22 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 27 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 33 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 39 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 47 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 56 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 68 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |
| 82 pF                            |                      |  |              |  |              |  |  |              |  |  |              |  |

Chip thickness (s): 0,5 ± 0,1 mm 0,6 ± 0,1 mm 0,8 ± 0,1 mm 1,2 ± 0,1 mm

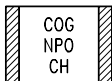
1) l × b (inch) / l × b (mm)  
 2) Only listed capacitance values available  
 Capacitance values < 1 pF upon request

Product range

| COG/NPO/CH                       |              |  |              |  |              |     |     |              |     |     |              |     |     |
|----------------------------------|--------------|--|--------------|--|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|
| Size <sup>1)</sup><br>inch<br>mm | 0402<br>1005 |  | 0603<br>1608 |  | 0805<br>2012 |     |     | 1206<br>3216 |     |     | 1210<br>3225 |     |     |
| Type                             | B37920       |  | B37930       |  | B37940       |     |     | B37871       |     |     | B37949       |     |     |
| V <sub>R</sub> (Vdc)             | 50           |  | 50           |  | 50           | 100 | 200 | 50           | 100 | 200 | 50           | 100 | 200 |
| 100 pF                           | ■            |  | ■            |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 120 pF                           | ■            |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 150 pF                           | ■            |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 180 pF                           | ■            |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 220 pF                           | ■            |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 270 pF                           |              |  | ■            |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 330 pF                           |              |  | ■            |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 390 pF                           |              |  | ■            |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 470 pF                           |              |  | ■            |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 560 pF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 680 pF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 820 pF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ■   |
| 1,0 nF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   | ■            | ■   | ■   |
| 1,2 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   |              |     | ■   |
| 1,5 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   |              |     | ■   |
| 1,8 nF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   | ■            | ■   | ■   |
| 2,2 nF                           |              |  |              |  | ■            | ■   | ■   | ■            | ■   | ■   |              |     | ▨   |
| 2,7 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   | ■            | ■   | ■   |
| 3,3 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   | ■            | ■   | ■   |
| 3,9 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   | ■            | ■   | ■   |
| 4,7 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   | ■            | ■   | ■   |
| 5,6 nF                           |              |  |              |  |              |     |     | ■            | ■   | ■   | ■            | ■   | ■   |
| 6,8 nF                           |              |  |              |  |              |     |     |              |     |     | ■            | ■   | ■   |
| 8,2 nF                           |              |  |              |  |              |     |     |              |     |     | ■            | ■   | ■   |
| 10 nF                            |              |  |              |  |              |     |     |              |     |     | ■            | ■   | ■   |

Chip thickness (s): 0,5 ± 0,1 mm 0,6 ± 0,1 mm 0,8 ± 0,1 mm 1,2 ± 0,1 mm 1,6 ± 0,1 mm ▨

1) l × b (inch) / l × b (mm)



### Ordering codes for COG/NP0/CH, 50 Vdc, AgNiSn terminations

| Size         | 0402/1005                   | 0603/1608     | 0805/2012     | 1206/3216     | 1210/3225 |
|--------------|-----------------------------|---------------|---------------|---------------|-----------|
| $C_R^{1)}$   | Ordering code <sup>2)</sup> |               |               |               |           |
|              | B37920-                     | B37930-       | B37940-       | B37871-       | B37949-   |
| 1,0 pF       | -K5010-C60 ▲                | -K5010-C60 ○  | -K5010-C60 □  | -K5010-C60 ○  |           |
| 1,2 pF       |                             | -K5010-C260 ○ | -K5010-C260 □ | -K5010-C260 ○ |           |
| 1,5 pF       |                             | -K5010-C560 ○ | -K5010-C560 □ | -K5010-C560 ○ |           |
| 1,8 pF       |                             | -K5010-C860 ○ | -K5010-C860 □ | -K5010-C860 ○ |           |
| 2,2 (2,0) pF | -K5020-C60 ▲                | -K5020-C260 ○ | -K5020-C260 □ | -K5020-C260 ○ |           |
| 2,7 (3,0) pF | -K5030-C60 ▲                | -K5020-C760 ○ | -K5020-C760 □ | -K5020-C760 ○ |           |
| 3,3 (4,0) pF | -K5040-C60 ▲                | -K5030-C360 ○ | -K5030-C360 □ | -K5030-C360 ○ |           |
| 3,9 (5,0) pF | -K5050-C60 ▲                | -K5030-C960 ○ | -K5030-C960 □ | -K5030-C960 ○ |           |
| 4,7 (6,0) pF | -K5060-C60 ▲                | -K5040-C760 ○ | -K5040-C760 □ | -K5040-C760 ○ |           |
| 5,6 (7,0) pF | -K5070-C60 ▲                | -K5050-C660 ○ | -K5050-C660 □ | -K5050-C660 ○ |           |
| 6,8 (8,0) pF | -K5080-C60 ▲                | -K5060-C860 ○ | -K5060-C860 □ | -K5060-C860 ○ |           |
| 8,2 (9,0) pF | -K5090-C60 ▲                | -K5080-C260 ○ | -K5080-C260 □ | -K5080-C260 ○ |           |
| 10 pF        | -K5100-J60 ▲                | -K5100-J60 ○  | -K5100-J60 □  | -K5100-J60 ○  |           |
| 12 pF        | -K5120-J60 ▲                | -K5120-J60 ○  | -K5120-J60 □  | -K5120-J60 ○  |           |
| 15 pF        | -K5150-J60 ▲                | -K5150-J60 ○  | -K5150-J60 □  | -K5150-J60 ○  |           |
| 18 pF        | -K5180-J60 ▲                | -K5180-J60 ○  | -K5180-J60 □  | -K5180-J60 ○  |           |
| 22 pF        | -K5220-J60 ▲                | -K5220-J60 ○  | -K5220-J60 □  | -K5220-J60 ○  |           |
| 27 pF        | -K5270-J60 ▲                | -K5270-J60 ○  | -K5270-J60 □  | -K5270-J60 ○  |           |
| 33 pF        | -K5330-J60 ▲                | -K5330-J60 ○  | -K5330-J60 □  | -K5330-J60 ○  |           |
| 39 pF        | -K5390-J60 ▲                | -K5390-J60 ○  | -K5390-J60 □  | -K5390-J60 ○  |           |
| 47 pF        | -K5470-J60 ▲                | -K5470-J60 ○  | -K5470-J60 □  | -K5470-J60 ○  |           |
| 56 pF        | -K5560-J60 ▲                | -K5560-J60 ○  | -K5560-J60 □  | -K5560-J60 ○  |           |
| 68 pF        | -K5680-J60 ▲                | -K5680-J60 ○  | -K5680-J60 □  | -K5680-J60 ○  |           |
| 82 pF        | -K5820-J60 ▲                | -K5820-J60 ○  | -K5820-J60 □  | -K5820-J60 ○  |           |
| 100 pF       | -K5101-J60 ▲                | -K5101-J60 ○  | -K5101-J60 □  | -K5101-J60 ○  |           |
| 120 pF       | -K5121-J60 ▲                | -K5121-J60 ○  | -K5121-J60 □  | -K5121-J60 ○  |           |
| 150 pF       | -K5151-J60 ▲                | -K5151-J60 ○  | -K5151-J60 □  | -K5151-J60 ○  |           |
| 180 pF       | -K5181-J60 ▲                | -K5181-J60 ○  | -K5181-J60 □  | -K5181-J60 ○  |           |
| 220 pF       | -K5221-J60 ▲                | -K5221-J60 ○  | -K5221-J60 □  | -K5221-J60 ○  |           |
| 270 pF       |                             | -K5271-J60 ○  | -K5271-J60 □  | -K5271-J60 ○  |           |
| 330 pF       |                             | -K5331-J60 ○  | -K5331-J60 □  | -K5331-J60 ○  |           |
| 390 pF       |                             | -K5391-J60 ○  | -K5391-J60 □  | -K5339-J60 ○  |           |
| 470 pF       |                             | -K5471-J60 ○  | -K5471-J60 □  | -K5471-J60 ○  |           |
| 560 pF       |                             |               | -K5561-J60 □  | -K5561-J60 ○  |           |
| 680 pF       |                             |               | -K5681-J60 □  | -K5681-J60 ○  |           |
| 820 pF       |                             |               | -K5821-J60 □  | -K5821-J60 ○  |           |

Chip thickness: ▲: 0,5 ± 0,1 mm □: 0,6 ± 0,1 mm ○: 0,8 ± 0,1 mm

1) E24 series available on request. For size 0402 only capacitance values in ( ) available; capacitance values < 1 pF on request.

2) The tables contain the ordering codes for the standard capacitance tolerance:

C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37920-K5010-C60

For other available capacitance tolerances see page 15

**Ordering codes for COG/NP0/CH, 50 Vdc, AgNiSn terminations (cont'd)**

| Size                | 0402/1005                   | 0603/1606 | 0805/2012    | 1206/3216    | 1210/3225    |
|---------------------|-----------------------------|-----------|--------------|--------------|--------------|
| $C_R$ <sup>1)</sup> | Ordering code <sup>2)</sup> |           |              |              |              |
|                     | B37920-                     | B37930-   | B37940-      | B37871-      | B37949-      |
| 1,0 nF              |                             |           | -K5102-J60 □ | -K5102-J60 ○ | -K5102-J62 ○ |
| 1,2 nF              |                             |           | -K5122-J60 ○ | -K5122-J60 ○ | -K5122-J62 ○ |
| 1,5 nF              |                             |           | -K5152-J60 ○ | -K5152-J60 ○ | -K5152-J62 ○ |
| 1,8 nF              |                             |           | -K5182-J62 ◆ | -K5182-J60 ○ | -K5182-J62 ○ |
| 2,2 nF              |                             |           | -K5222-J62 ◆ | -K5222-J60 ○ | -K5222-J62 ○ |
| 2,7 nF              |                             |           |              | -K5272-J60 ○ | -K5272-J62 ○ |
| 3,3 nF              |                             |           |              | -K5332-J60 ○ | -K5332-J62 ○ |
| 3,9 nF              |                             |           |              | -K5392-J60 ○ | -K5392-J62 ○ |
| 4,7 nF              |                             |           |              | -K5472-J62 ◆ | -K5472-J62 ○ |
| 5,6 nF              |                             |           |              | -K5562-J62 ◆ | -K5562-J62 ○ |
| 6,8 nF              |                             |           |              |              | -K5682-J62 ○ |
| 8,2 nF              |                             |           |              |              | -K5822-J62 ◆ |
| 10 nF               |                             |           |              |              | -K5103-J62 ◆ |

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

1) E24 series available on request

2) The tables contain the ordering codes for the standard capacitance tolerance:  
 C =  $\pm 0,25$  pF for < 10 pF; J =  $\pm 5\%$  for  $\geq 10$  pF. Example: B37940-K5102-J60  
 For other available capacitance tolerances see page 15

### Ordering codes for COG/NP0/CH, 100 Vdc, AgNiSn terminations

| Size   | 0805/2012                   | 1206/3216     | Size   | 1206/3216                   | 1210/3225    |
|--------|-----------------------------|---------------|--------|-----------------------------|--------------|
| $C_R$  | Ordering code <sup>1)</sup> |               | $C_R$  | Ordering code <sup>1)</sup> |              |
|        | B37940-                     | B37871-       |        | B37871-                     | B37949-      |
| 1,0 pF | -K1010-C60 □                | -K1010-C60 ○  | 1,2 nF | -K1122-J60 ○                | -K1122-J60 ○ |
| 1,2 pF | -K1010-C260 □               | -K1010-C260 ○ | 1,5 nF | -K1152-J60 ○                | -K1152-J60 ○ |
| 1,5 pF | -K1010-C560 □               | -K1010-C560 ○ | 1,8 nF | -K1182-J60 ○                | -K1182-J60 ○ |
| 1,8 pF | -K1010-C860 □               | -K1010-C860 ○ | 2,2 nF | -K1222-J62 ◆                | -K1222-J60 ○ |
| 2,2 pF | -K1020-C260 □               | -K1020-C260 ○ | 2,7 nF |                             | -K1272-J60 ○ |
| 2,7 pF | -K1020-C760 □               | -K1020-C760 ○ | 3,3 nF |                             | -K1332-J60 ○ |
| 3,3 pF | -K1030-C360 □               | -K1030-C360 ○ | 3,9 nF |                             | -K1392-J60 ○ |
| 3,9 pF | -K1030-C960 □               | -K1030-C960 ○ | 4,7 nF |                             | -K1472-J62 ◆ |
| 4,7 pF | -K1040-C760 □               | -K1040-C760 ○ | 5,6 nF |                             | -K1562-J62 ◆ |
| 5,6 pF | -K1050-C660 □               | -K1050-C660 ○ | 6,8 nF |                             | -K1682-J62 ◆ |
| 6,8 pF | -K1060-C860 □               | -K1060-C860 ○ |        |                             |              |
| 8,2 pF | -K1080-C260 □               | -K1080-C260 ○ |        |                             |              |
| 10 pF  | -K1100-J60 □                | -K1100-J60 ○  |        |                             |              |
| 12 pF  | -K1120-J60 □                | -K1120-J60 ○  |        |                             |              |
| 15 pF  | -K1150-J60 □                | -K1150-J60 ○  |        |                             |              |
| 18 pF  | -K1180-J60 □                | -K1180-J60 ○  |        |                             |              |
| 22 pF  | -K1220-J60 □                | -K1220-J60 ○  |        |                             |              |
| 27 pF  | -K1270-J60 □                | -K1270-J60 ○  |        |                             |              |
| 33 pF  | -K1330-J60 □                | -K1330-J60 ○  |        |                             |              |
| 39 pF  | -K1390-J60 □                | -K1390-J60 ○  |        |                             |              |
| 47 pF  | -K1470-J60 □                | -K1470-J60 ○  |        |                             |              |
| 56 pF  | -K1560-J60 □                | -K1560-J60 ○  |        |                             |              |
| 68 pF  | -K1680-J60 □                | -K1680-J60 ○  |        |                             |              |
| 82 pF  | -K1820-J60 □                | -K1820-J60 ○  |        |                             |              |
| 100 pF | -K1101-J60 □                | -K1101-J60 ○  |        |                             |              |
| 120 pF | -K1121-J60 □                | -K1121-J60 ○  |        |                             |              |
| 150 pF | -K1151-J60 □                | -K1151-J60 ○  |        |                             |              |
| 180 pF | -K1181-J60 □                | -K1181-J60 ○  |        |                             |              |
| 220 pF | -K1221-J60 □                | -K1221-J60 ○  |        |                             |              |
| 270 pF | -K1271-J60 □                | -K1271-J60 ○  |        |                             |              |
| 330 pF | -K1331-J60 □                | -K1331-J60 ○  |        |                             |              |
| 390 pF | -K1391-J60 □                | -K1391-J60 ○  |        |                             |              |
| 470 pF | -K1471-J60 □                | -K1471-J60 ○  |        |                             |              |
| 560 pF | -K1561-J60 ○                | -K1561-J60 ○  |        |                             |              |
| 680 pF | -K1681-J60 ○                | -K1681-J60 ○  |        |                             |              |
| 820 pF | -K1821-J62 ◆                | -K1821-J60 ○  |        |                             |              |
| 1,0 nF | -K1102-J62 ◆                | -K1102-J60 ○  |        |                             |              |

Chip thickness: □: 0,6 ± 0,1 mm ○: 0,8 ± 0,1 mm ◆: 1,2 ± 0,1 mm

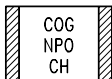
1) The tables contain the ordering codes for the standard capacitance tolerance:  
 C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37940-K1010-C60  
 For other available capacitance tolerances see page 15

Ordering codes for COG/NPO/CH, 200 Vdc, AgNiSn terminations

| Size           | 0805/2012                   | 1206/3216     | 1210/3225    |  |  |
|----------------|-----------------------------|---------------|--------------|--|--|
| C <sub>R</sub> | Ordering code <sup>1)</sup> |               |              |  |  |
|                | B37940-                     | B37871-       | B37949-      |  |  |
| 1,0 pF         | -K2010-C60 □                | -K2010-C60 ○  |              |  |  |
| 1,2 pF         | -K2010-C260 □               | -K2010-C260 ○ |              |  |  |
| 1,5 pF         | -K2010-C560 □               | -K2010-C560 ○ |              |  |  |
| 1,8 pF         | -K2010-C860 □               | -K2010-C860 ○ |              |  |  |
| 2,2 pF         | -K2020-C260 □               | -K2020-C260 ○ |              |  |  |
| 2,7 pF         | -K2020-C760 □               | -K2020-C760 ○ |              |  |  |
| 3,3 pF         | -K2030-C360 □               | -K2030-C360 ○ |              |  |  |
| 3,9 pF         | -K2030-C960 □               | -K2030-C960 ○ |              |  |  |
| 4,7 pF         | -K2040-C760 □               | -K2040-C760 ○ |              |  |  |
| 5,6 pF         | -K2050-C660 □               | -K2050-C660 ○ |              |  |  |
| 6,8 pF         | -K2060-C860 □               | -K2060-C860 ○ |              |  |  |
| 8,2 pF         | -K2080-C260 □               | -K2080-C260 ○ |              |  |  |
| 10 pF          | -K2100-J60 □                | -K2100-J60 ○  |              |  |  |
| 12 pF          | -K2120-J60 □                | -K2120-J60 ○  |              |  |  |
| 15 pF          | -K2150-J60 □                | -K2150-J60 ○  |              |  |  |
| 18 pF          | -K2180-J60 □                | -K2180-J60 ○  |              |  |  |
| 22 pF          | -K2220-J60 □                | -K2220-J60 ○  |              |  |  |
| 27 pF          | -K2270-J60 □                | -K2270-J60 ○  |              |  |  |
| 33 pF          | -K2330-J60 □                | -K2330-J60 ○  |              |  |  |
| 39 pF          | -K2390-J60 □                | -K2390-J60 ○  |              |  |  |
| 47 pF          | -K2470-J60 □                | -K2470-J60 ○  |              |  |  |
| 56 pF          | -K2560-J60 □                | -K2560-J60 ○  |              |  |  |
| 68 pF          | -K2680-J60 □                | -K2680-J60 ○  |              |  |  |
| 82 pF          | -K2820-J60 □                | -K2820-J60 ○  |              |  |  |
| 100 pF         | -K2101-J60 □                | -K2101-J60 ○  | -K2101-J62 ○ |  |  |
| 120 pF         | -K2121-J60 □                | -K2121-J60 ○  | -K2121-J62 ○ |  |  |
| 150 pF         | -K2151-J60 □                | -K2151-J60 ○  | -K2151-J62 ○ |  |  |
| 180 pF         | -K2181-J60 □                | -K2181-J60 ○  | -K2181-J62 ○ |  |  |
| 220 pF         | -K2221-J60 □                | -K2221-J60 ○  | -K2221-J62 ○ |  |  |
| 270 pF         | -K2271-J62 ◆                | -K2271-J60 ○  | -K2271-J62 ○ |  |  |
| 330 pF         | -K2331-J62 ◆                | -K2331-J60 ○  | -K2331-J62 ○ |  |  |
| 390 pF         |                             | -K2391-J60 ○  | -K2391-J62 ○ |  |  |
| 470 pF         |                             | -K2471-J60 ○  | -K2471-J62 ○ |  |  |
| 560 pF         |                             | -K2561-J60 ○  | -K2561-J62 ○ |  |  |
| 680 pF         |                             | -K2681-J62 ◆  | -K2681-J62 ○ |  |  |
| 820 pF         |                             | -K2821-J62 ◆  | -K2821-J62 ○ |  |  |

Chip thickness: □: 0,6 ± 0,1 mm ○: 0,8 ± 0,1 mm ◆: 1,2 ± 0,1 mm

1) The tables contain the ordering codes for the standard capacitance tolerance:  
 C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37940-K2010-C62  
 For other available capacitance tolerances see page 15



### Ordering codes for COG/NP0/CH, 200 Vdc, AgNiSn terminations (cont'd)

| Size   | 0805/2012                   | 1206/3216    | 1210/3225    |  |  |
|--------|-----------------------------|--------------|--------------|--|--|
| $C_R$  | Ordering code <sup>1)</sup> |              |              |  |  |
|        | B37940-                     | B37871-      | B37949-      |  |  |
| 1,0 nF |                             | -K2102-J62 ◆ | -K2102-J62 ○ |  |  |
| 1,2 nF |                             |              | -K2122-J62 ◆ |  |  |
| 1,5 nF |                             |              | -K2152-J62 ◆ |  |  |
| 1,8 nF |                             |              | -K2182-J62 ◆ |  |  |
| 2,2 nF |                             |              | -K2222-J62 ● |  |  |

Chip thickness: □: 0,6 ± 0,1 mm   ○: 0,8 ± 0,1 mm   ◆: 1,2 ± 0,1 mm   ●: 1,6 ± 0,1 mm

1) The tables contain the ordering codes for the standard capacitance tolerance:  
 C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37871-K2102-J62  
 For other available capacitance tolerances see page 15



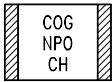
**Ordering codes for COG/NPO/CH, 50 Vdc, AgNiSn terminations, bulk case packing**

| Size       | 0603/1608                   | 0805/2012     | 1206/3216     |  |
|------------|-----------------------------|---------------|---------------|--|
| $C_R^{1)}$ | Ordering code <sup>2)</sup> |               |               |  |
|            | B37930-                     | B37940-       | B37871-       |  |
| 1,0 pF     | -K5010-C01 ○                | -K5010-C01 □  | -K5010-C01 □  |  |
| 1,2 pF     | -K5010-C201 ○               | -K5010-C201 □ | -K5010-C201 □ |  |
| 1,5 pF     | -K5010-C501 ○               | -K5010-C501 □ | -K5010-C501 □ |  |
| 1,8 pF     | -K5010-C801 ○               | -K5010-C801 □ | -K5010-C801 □ |  |
| 2,2 pF     | -K5020-C201 ○               | -K5020-C201 □ | -K5020-C201 □ |  |
| 2,7 pF     | -K5020-C701 ○               | -K5020-C701 □ | -K5020-C701 □ |  |
| 3,3 pF     | -K5030-C301 ○               | -K5030-C301 □ | -K5030-C301 □ |  |
| 3,9 pF     | -K5030-C901 ○               | -K5030-C901 □ | -K5030-C901 □ |  |
| 4,7 pF     | -K5040-C701 ○               | -K5040-C701 □ | -K5040-C701 □ |  |
| 5,6 pF     | -K5050-C601 ○               | -K5050-C601 □ | -K5050-C601 □ |  |
| 6,8 pF     | -K5060-C801 ○               | -K5060-C801 □ | -K5060-C801 □ |  |
| 8,2 pF     | -K5080-C201 ○               | -K5080-C201 □ | -K5080-C201 □ |  |
| 10 pF      | -K5100-J01 ○                | -K5100-J01 □  | -K5100-J01 □  |  |
| 12 pF      | -K5120-J01 ○                | -K5120-J01 □  | -K5120-J01 □  |  |
| 15 pF      | -K5150-J01 ○                | -K5150-J01 □  | -K5150-J01 □  |  |
| 18 pF      | -K5180-J01 ○                | -K5180-J01 □  | -K5180-J01 □  |  |
| 22 pF      | -K5220-J01 ○                | -K5220-J01 □  | -K5220-J01 □  |  |
| 27 pF      | -K5270-J01 ○                | -K5270-J01 □  | -K5270-J01 □  |  |
| 33 pF      | -K5330-J01 ○                | -K5330-J01 □  | -K5330-J01 □  |  |
| 39 pF      | -K5390-J01 ○                | -K5390-J01 □  | -K5390-J01 □  |  |
| 47 pF      | -K5470-J01 ○                | -K5470-J01 □  | -K5470-J01 □  |  |
| 56 pF      | -K5560-J01 ○                | -K5560-J01 □  | -K5560-J01 □  |  |
| 68 pF      | -K5680-J01 ○                | -K5680-J01 □  | -K5680-J01 □  |  |
| 82 pF      | -K5820-J01 ○                | -K5820-J01 □  | -K5820-J01 □  |  |
| 100 pF     | -K5101-J01 ○                | -K5101-J01 □  | -K5101-J01 □  |  |
| 120 pF     | -K5121-J01 ○                | -K5121-J01 □  | -K5121-J01 □  |  |
| 150 pF     | -K5151-J01 ○                | -K5151-J01 □  | -K5151-J01 □  |  |
| 180 pF     | -K5181-J01 ○                | -K5181-J01 □  | -K5181-J01 □  |  |
| 220 pF     | -K5221-J01 ○                | -K5221-J01 □  | -K5221-J01 □  |  |
| 270 pF     | -K5271-J01 ○                | -K5271-J01 □  | -K5271-J01 □  |  |
| 330 pF     | -K5331-J01 ○                | -K5331-J01 □  | -K5331-J01 □  |  |
| 390 pF     | -K5391-J01 ○                | -K5391-J01 □  | -K5391-J01 □  |  |
| 470 pF     | -K5471-J01 ○                | -K5471-J01 □  | -K5471-J01 □  |  |
| 560 pF     |                             | -K5561-J01 □  | -K5561-J01 □  |  |
| 680 pF     |                             | -K5681-J01 □  | -K5681-J01 □  |  |
| 820 pF     |                             | -K5821-J01 □  | -K5821-J01 □  |  |

Chip thickness: □: 0,6 ± 0,1 mm    ○: 0,8 ± 0,1 mm

1) E24 series available on request

2) The tables contain the ordering codes for the standard capacitance tolerance:  
 C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37930-K5010-C01  
 For other available capacitance tolerances see page 15



**Ordering codes for C0G/NP0/CH, 50 Vdc, AgNiSn terminations, bulk case packing (cont'd)**

| Size       | 0603/1608                   | 0805/2012    | 1206/3216    |  |
|------------|-----------------------------|--------------|--------------|--|
| $C_R^{1)}$ | Ordering code <sup>2)</sup> |              |              |  |
|            | B37930-                     | B37940-      | B37871-      |  |
| 1,0 nF     |                             | -K5102-J01 □ | -K5102-J01 □ |  |
| 1,2 nF     |                             |              | -K5122-J01 □ |  |
| 1,5 nF     |                             |              | -K5152-J01 □ |  |
| 1,8 nF     |                             |              | -K5182-J01 □ |  |
| 2,2 nF     |                             |              | -K5222-J01 □ |  |

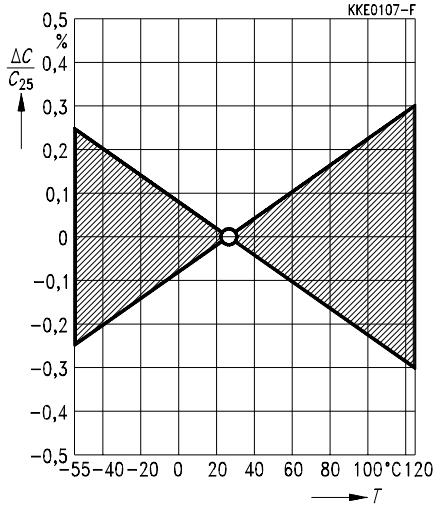
Chip thickness: □: 0,6 ± 0,1 mm

1) E24 series available on request

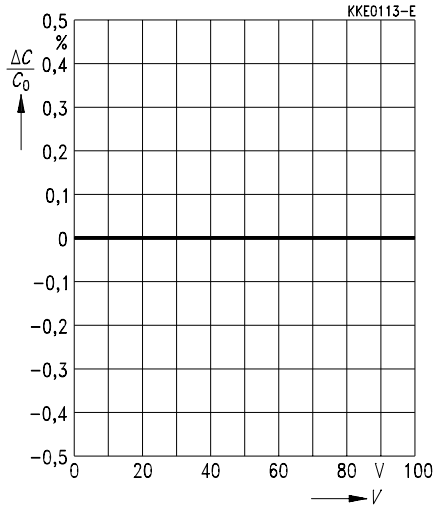
2) The tables contain the ordering codes for the standard capacitance tolerance:  
 C = ± 0,25 pF for < 10 pF; J = ± 5% for ≥ 10 pF. Example: B37871-K5102-J01  
 For other available capacitance tolerances see page 15

**Characteristics**

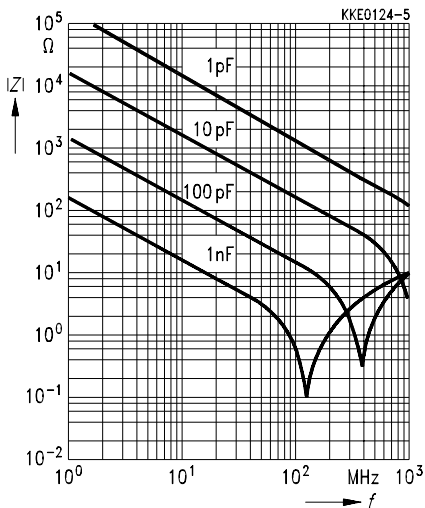
Capacitance change  $\Delta C/C_{25}$  versus temperature  $T$  (tolerance range  $\square$ )



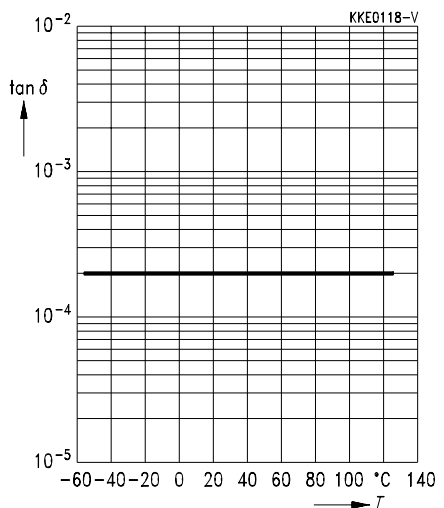
Capacitance change  $\Delta C/C_0$  versus superimposed dc voltage  $V$

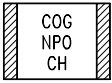


Impedance  $|Z|$  versus frequency  $f$

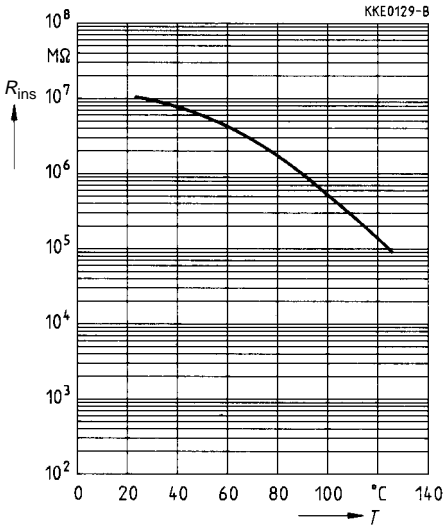


Dissipation factor  $\tan \delta$  versus temperature  $T$





Insulation resistance  $R_{ins}$  versus temperature  $T$



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

