

**Extremely small dimensions  
Versions with special dimensions  
can be supplied at short notice**

**Construction**

- Dielectric: polyethylene terephthalate (polyester)
- Stacked-film technology
- Uncoated

**Features**

- Special dimensions available upon request
- High pulse strength
- Minimum tensile strength of leads >10 N

**Typical applications**

- Standard applications
- Electronic lamp ballast circuits
- Energy-saving lamps
- Substitute for electrolytics in electronic lamp ballasts (420 Vdc)

**Terminals**

- Parallel wire leads, tinned
- Also available with  $(3,0 \pm 0,5)$  mm lead length upon request

**Marking**

Rated capacitance (coded),  
rated dc voltage

**Delivery mode**

Bulk (untaped)  
Taped (AMMO pack or reel) for  
lead spacing  $\leq 15,0$  mm.  
For notes on taping, [refer to page 279](#).

**Detail specification**

Homologated in accordance with CECC 30 401-007

**Notes on mounting**

When mounting these capacitors, take into account creepage distances and clearances to adjacent live parts. The insulating strength of the cut surfaces to other live parts of the circuit is 1,5 times the capacitors rated dc voltage, but is always at least 300 Vdc.

Capacitors with 7,5 mm lead spacing are only suitable for use with single-clad printed circuit boards.



Dimensions in mm

| Lead spacing | Diameter $d_1$ | Type     |
|--------------|----------------|----------|
| $e \pm 0,4$  |                |          |
| 7,5          | 0,5            | B 32 560 |
| 10,0         | 0,5            | B 32 561 |
| 15,0         | 0,6            | B 32 562 |
| 22,5         | 0,8            | B 32 563 |
| 27,5         | 0,8            | B 32 564 |



Overview of available types

| Lead spacing         | 7,5 mm   | 10 mm    | 15 mm    | 22,5 mm  | 27,5 mm  |
|----------------------|----------|----------|----------|----------|----------|
| Type                 | B 32 560 | B 32 561 | B 32 562 | B 32 563 | B 32 564 |
| Page                 | 55       | 57       | 58       | 59       | 60       |
| 1,0 nF               |          |          |          |          |          |
| 1,5 nF               |          |          |          |          |          |
| 2,2 nF               |          |          |          |          |          |
| 3,3 nF               |          |          |          |          |          |
| 4,7 nF               |          |          |          |          |          |
| 6,8 nF               |          |          |          |          |          |
| 10 nF                |          |          |          |          |          |
| 15 nF                |          |          |          |          |          |
| 22 nF                |          |          |          |          |          |
| 33 nF                |          |          |          |          |          |
| 47 nF                |          |          |          |          |          |
| 68 nF                |          |          |          |          |          |
| 0,10 µF              |          |          |          |          |          |
| 0,15 µF              |          |          |          |          |          |
| 0,22 µF              |          |          |          |          |          |
| 0,33 µF              |          |          |          |          |          |
| 0,47 µF              |          |          |          |          |          |
| 0,68 µF              |          |          |          |          |          |
| 1,0 µF               |          |          |          |          |          |
| 1,5 µF               |          |          |          |          |          |
| 2,2 µF               |          |          |          |          |          |
| 3,3 µF               |          |          |          |          |          |
| 4,7 µF               |          |          |          |          |          |
| 5,6 µF <sup>1)</sup> |          |          |          |          |          |
| 6,8 µF               |          |          |          |          |          |
| 10 µF                |          |          |          |          |          |
| 15 µF                |          |          |          |          |          |
| 22 µF                |          |          |          |          |          |
| 33 µF                |          |          |          |          |          |

1) For B 32 564, 420 Vdc only


**Ordering codes and packing units, lead spacing 7,5 mm**

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$                           | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs) |      |         |
|---|---------------------------------|---|-----------------------------|---------------------|------|---------|
|   |                                 |   |                             | Ammo<br>pack        | Reel | Untaped |
| 63 Vdc<br>(40 Vac)                        | 0,22 $\mu$ F                    | 2,5 $\times$ 5,2 $\times$ 9,0                       | B32560-J224-+               | 2)                  | 2)   | 2500    |
|   | 0,33 $\mu$ F                    | 2,5 $\times$ 5,6 $\times$ 9,0                       | B32560-J334-+               | 2)                  | 2)   | 2500    |
|   | 0,47 $\mu$ F                    | 2,6 $\times$ 5,8 $\times$ 9,0                       | B32560-J474-+****           | 3250                | 2600 | 2000    |
|   | 0,68 $\mu$ F                    | 3,2 $\times$ 6,2 $\times$ 9,0                       | B32560-J684-+****           | 2850                | 2300 | 1500    |
|   | 1,0 $\mu$ F                     | 4,0 $\times$ 6,8 $\times$ 9,0                       | B32560-J105-+****           | 2200                | 1800 | 1000    |
|   | 1,5 $\mu$ F                     | 5,1 $\times$ 7,6 $\times$ 9,0                       | B32560-J155-+****           | 1700                | 1400 | 500     |
|   | 2,2 $\mu$ F                     | 6,5 $\times$ 8,2 $\times$ 9,0                       | B32560-J225-+****           | 1300                | 1100 | 500     |
|   | 3,3 $\mu$ F                     | 8,5 $\times$ 9,1 $\times$ 9,0                       | B32560-J335-+               | –                   | –    | 350     |
|   | 4,7 $\mu$ F                     | 9,8 $\times$ 11,0 $\times$ 9,0                      | B32560-J475-+               | –                   | –    | 250     |
| 6,8 $\mu$ F                               | 11,5 $\times$ 13,3 $\times$ 9,0 | B32560-J685-+                                       | –                           | –                   | 150  |         |
| 100 Vdc<br>(63 Vac)                       | 0,10 $\mu$ F                    | 2,5 $\times$ 4,7 $\times$ 9,0                       | B32560-J1104-+              | 2)                  | 2)   | 3000    |
|   | 0,15 $\mu$ F                    | 2,5 $\times$ 4,7 $\times$ 9,0                       | B32560-J1154-+              | 2)                  | 2)   | 3000    |
|   | 0,22 $\mu$ F                    | 2,5 $\times$ 5,1 $\times$ 9,0                       | B32560-J1224-+****          | 3400                | 2700 | 2000    |
|   | 0,33 $\mu$ F                    | 2,7 $\times$ 5,7 $\times$ 9,0                       | B32560-J1334-+****          | 3100                | 2500 | 1500    |
|   | 0,47 $\mu$ F                    | 3,4 $\times$ 6,1 $\times$ 9,0                       | B32560-J1474-+****          | 2500                | 2000 | 1200    |
|   | 0,68 $\mu$ F                    | 4,2 $\times$ 6,5 $\times$ 9,0                       | B32560-J1684-+****          | 2000                | 1600 | 1000    |
|   | 1,0 $\mu$ F                     | 5,5 $\times$ 7,0 $\times$ 9,0                       | B32560-J1105-+****          | 1600                | 1300 | 500     |
|   | 1,5 $\mu$ F                     | 6,7 $\times$ 8,2 $\times$ 9,0                       | B32560-J1155-+              | –                   | –    | 400     |
| 2,2 $\mu$ F                               | 8,5 $\times$ 9,2 $\times$ 9,0   | B32560-J1225-+                                      | –                           | –                   | 300  |         |
| 250 Vdc<br>(160 Vac)                      | 33 nF                           | 2,5 $\times$ 4,8 $\times$ 9,0                       | B32560-J3333-+              | 2)                  | 2)   | 3000    |
|   | 47 nF                           | 2,5 $\times$ 5,2 $\times$ 9,0                       | B32560-J3473-+****          | 3500                | 2800 | 2300    |
|   | 68 nF                           | 2,6 $\times$ 5,7 $\times$ 9,0                       | B32560-J3683-+****          | 3400                | 2700 | 1700    |
|   | 0,10 $\mu$ F                    | 3,2 $\times$ 6,1 $\times$ 9,0                       | B32560-J3104-+****          | 2650                | 2200 | 1200    |
|   | 0,15 $\mu$ F                    | 3,9 $\times$ 7,0 $\times$ 9,0                       | B32560-J3154-+****          | 2150                | 1800 | 1000    |
|   | 0,22 $\mu$ F                    | 4,9 $\times$ 7,5 $\times$ 9,0                       | B32560-J3224-+****          | 1750                | 1400 | 650     |
|   | 0,33 $\mu$ F                    | 6,4 $\times$ 8,2 $\times$ 9,0                       | B32560-J3334-+              | –                   | –    | 500     |

Capacitance tolerance:  $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

- 1) Replace the + by the code letter for the required capacitance tolerance.  
 Replace the \*\*\* by the code number for the required packing: Ammo pack = 289, reel = 189  
 The ordering code for untaped components ends after the tolerance code letter.
- 2) Taping upon request



## B 32 560

### Ordering codes and packing units, lead spacing 7,5 mm

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$                | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs) |      |         |
|---|----------------------|---|-----------------------------|---------------------|------|---------|
|   |                      |   |                             | Ammo<br>pack        | Reel | Untaped |
| 400 Vdc<br>(200 Vac)                      | 1,0 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6102-+              | 2)                  | 2)   | 2300    |
|   | 1,5 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6152-+***           | 3500                | 2900 | 2000    |
|   | 2,2 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6222-+***           | 3700                | 3000 | 2100    |
|   | 3,3 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6332-+***           | 3400                | 2800 | 2000    |
|   | 4,7 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6472-+***           | 3700                | 3000 | 2000    |
|   | 6,8 nF               | 2,5 × 5,5 × 9,0                                     | B32560-J6682-+***           | 3700                | 3000 | 2000    |
|   | 10 nF                | 2,5 × 5,5 × 9,0                                     | B32560-J6103-+***           | 3500                | 2800 | 2200    |
|   | 15 nF                | 2,5 × 5,5 × 9,0                                     | B32560-J6153-+***           | 3500                | 2800 | 2500    |
|   | 22 nF                | 2,5 × 5,5 × 9,0                                     | B32560-J6223-+***           | 3400                | 2700 | 2300    |
|   | 33 nF                | 2,6 × 6,0 × 9,0                                     | B32560-J6333-+***           | 3400                | 2700 | 1600    |
|   | 47 nF                | 3,2 × 6,5 × 9,0                                     | B32560-J6473-+***           | 2650                | 2200 | 1200    |
|   | 68 nF                | 3,8 × 7,3 × 9,0                                     | B32560-J6683-+***           | 2250                | 1900 | 1000    |
|   | 0,10 μF              | 4,9 × 7,7 × 9,0                                     | B32560-J6104-+***           | 1750                | 1400 | 500     |
|   | 0,15 μF              | 6,5 × 8,2 × 9,0                                     | B32560-J6154-+              | –                   | –    | 500     |
|   | 630 Vdc<br>(400 Vac) | 1,0 nF  | 2,5 × 5,5 × 9,0             | B32560-J8102-+      | 2)   | 2)      |
| 1,5 nF                                    |                      | 2,5 × 5,5 × 9,0                                     | B32560-J8152-+***           | 3500                | 2900 | 2000    |
| 2,2 nF                                    |                      | 2,5 × 5,5 × 9,0                                     | B32560-J8222-+***           | 3700                | 3000 | 2100    |
| 3,3 nF                                    |                      | 2,5 × 5,5 × 9,0                                     | B32560-J8332-+***           | 3400                | 2800 | 2000    |
| 4,7 nF                                    |                      | 2,5 × 5,5 × 9,0                                     | B32560-J8472-+***           | 3400                | 2700 | 1800    |
| 6,8 nF                                    |                      | 3,2 × 6,5 × 9,0                                     | B32560-J8682-+***           | 2900                | 2400 | 1300    |
| 10 nF                                     |                      | 3,8 × 7,5 × 9,0                                     | B32560-J8103-+***           | 2400                | 2000 | 1000    |

Capacitance tolerance:  $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

- 1) Replace the + by the code letter for the required capacitance tolerance.  
 Replace the \*\*\* by the code number for the required packing: Ammo pack = 289, reel = 189  
 The ordering code for untaped components ends after the tolerance code letter.
- 2) Taping upon request


**Ordering codes and packing units, lead spacing 10 mm**

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$        | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs) |      |         |
|---|--------------|---|-----------------------------|---------------------|------|---------|
|   |              |   |                             | Ammo<br>pack        | Reel | Untaped |
| 100 Vdc<br>(63 Vac)                       | 0,33 $\mu$ F | $2,5 \times 5,2 \times 11,5$                        | B32561-J1334-****           | 1750                | 2400 | 1600    |
|   | 0,47 $\mu$ F | $2,9 \times 5,8 \times 11,5$                        | B32561-J1474-****           | 1560                | 2300 | 1200    |
|   | 0,68 $\mu$ F | $3,6 \times 6,3 \times 11,5$                        | B32561-J1684-****           | 1260                | 2000 | 1000    |
|   | 1,0 $\mu$ F  | $4,5 \times 6,9 \times 11,5$                        | B32561-J1105-****           | 1050                | 1500 | 500     |
|   | 1,5 $\mu$ F  | $5,6 \times 7,8 \times 11,5$                        | B32561-J1155-****           | 810                 | 1200 | 500     |
|   | 2,2 $\mu$ F  | $6,9 \times 9,0 \times 11,5$                        | B32561-J1225-+              | –                   | –    | 400     |
| 250 Vdc<br>(160 Vac)                      | 47 nF        | $2,5 \times 4,4 \times 11,5$                        | B32561-J3473-+              | 2)                  | 2)   | 2300    |
|   | 68 nF        | $2,5 \times 4,8 \times 11,5$                        | B32561-J3683-****           | 1760                | 2400 | 1800    |
|   | 0,10 $\mu$ F | $2,8 \times 5,3 \times 11,5$                        | B32561-J3104-****           | 1600                | 2300 | 1300    |
|   | 0,15 $\mu$ F | $3,3 \times 6,0 \times 11,5$                        | B32561-J3154-****           | 1300                | 2000 | 1000    |
|   | 0,22 $\mu$ F | $4,2 \times 6,6 \times 11,5$                        | B32561-J3224-****           | 1040                | 1600 | 700     |
|   | 0,33 $\mu$ F | $5,2 \times 7,5 \times 11,5$                        | B32561-J3334-****           | 850                 | 1300 | 500     |
|   | 0,47 $\mu$ F | $6,3 \times 8,5 \times 11,5$                        | B32561-J3474-****           | 700                 | 1000 | 400     |
| 400 Vdc<br>(200 Vac)                      | 10 nF        | $2,5 \times 5,1 \times 11,5$                        | B32561-J6103-****           | 1760                | 2400 | 1700    |
|   | 15 nF        | $2,5 \times 5,1 \times 11,5$                        | B32561-J6153-****           | 1830                | 2500 | 2000    |
|   | 22 nF        | $2,5 \times 5,1 \times 11,5$                        | B32561-J6223-****           | 1830                | 2500 | 2000    |
|   | 33 nF        | $2,5 \times 5,1 \times 11,5$                        | B32561-J6333-****           | 1760                | 2400 | 1700    |
|   | 47 nF        | $2,6 \times 6,0 \times 11,5$                        | B32561-J6473-****           | 1760                | 2400 | 1300    |
|   | 68 nF        | $3,2 \times 6,6 \times 11,5$                        | B32561-J6683-****           | 1390                | 2100 | 1000    |
|   | 0,10 $\mu$ F | $4,0 \times 6,9 \times 11,5$                        | B32561-J6104-****           | 1090                | 1700 | 700     |
|   | 0,15 $\mu$ F | $5,2 \times 7,7 \times 11,5$                        | B32561-J6154-****           | 850                 | 1300 | 500     |
|   | 0,22 $\mu$ F | $6,6 \times 8,5 \times 11,5$                        | B32561-J6224-+              | –                   | –    | 300     |

Capacitance tolerance:  $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

- 1) Replace the + by the code letter for the required capacitance tolerance.  
 Replace the \*\*\* by the code number for the required packing: Ammo pack = 289, reel = 189  
 The ordering code for untaped components ends after the tolerance code letter.
- 2) Taping upon request



## B 32 562

### Ordering codes and packing units, lead spacing 15 mm

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$                            | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs) |      |         |
|---|----------------------------------|---|-----------------------------|---------------------|------|---------|
|   |                                  |   |                             | Ammo<br>pack        | Reel | Untaped |
| 100 Vdc<br>(63 Vac)                       | 1,0 $\mu$ F                      | 3,2 $\times$ 6,3 $\times$ 16,5                      | B32562-J1105-****           | 1750                | 2000 | 1500    |
|   | 1,5 $\mu$ F                      | 4,0 $\times$ 7,3 $\times$ 16,5                      | B32562-J1155-****           | 1460                | 1500 | 1000    |
|   | 2,2 $\mu$ F                      | 4,9 $\times$ 8,0 $\times$ 16,5                      | B32562-J1225-****           | 1190                | 1300 | 800     |
|   | 3,3 $\mu$ F                      | 6,0 $\times$ 9,3 $\times$ 16,5                      | B32562-J1335-****           | 960                 | 1000 | 500     |
|   | 4,7 $\mu$ F                      | 7,3 $\times$ 10,6 $\times$ 16,5                     | B32562-J1475-****           | 790                 | 900  | 400     |
|   | 6,8 $\mu$ F                      | 9,0 $\times$ 11,8 $\times$ 16,5                     | B32562-J1685-****           | 640                 | 700  | 290     |
|   | 10 $\mu$ F                       | 11,8 $\times$ 13,0 $\times$ 16,5                    | B32562-J1106-+              | –                   | –    | 200     |
| 250 Vdc<br>(160 Vac)                      | 0,22 $\mu$ F                     | 3,2 $\times$ 5,6 $\times$ 16,5                      | B32562-J3224-****           | 1750                | 2000 | 1700    |
|   | 0,33 $\mu$ F                     | 4,0 $\times$ 6,2 $\times$ 16,5                      | B32562-J3334-****           | 1460                | 1500 | 1200    |
|   | 0,47 $\mu$ F                     | 5,0 $\times$ 6,7 $\times$ 16,5                      | B32562-J3474-****           | 1190                | 1300 | 950     |
|   | 0,68 $\mu$ F                     | 6,0 $\times$ 7,8 $\times$ 16,5                      | B32562-J3684-****           | 960                 | 1000 | 500     |
|   | 1,0 $\mu$ F                      | 7,0 $\times$ 9,3 $\times$ 16,5                      | B32562-J3105-****           | 830                 | 900  | 500     |
|   | 1,5 $\mu$ F                      | 8,7 $\times$ 11,0 $\times$ 16,5                     | B32562-J3155-****           | 660                 | 700  | 300     |
|   | 2,2 $\mu$ F                      | 10,7 $\times$ 12,8 $\times$ 16,5                    | B32562-J3225-+              | –                   | –    | 200     |
| 3,3 $\mu$ F                               | 13,9 $\times$ 14,5 $\times$ 16,5 | B32562-J3335-+                                      | –                           | –                   | 150  |         |
| 400 Vdc<br>(200 Vac)                      | 22 nF                            | 3,3 $\times$ 5,6 $\times$ 16,5                      | B32562-J6223-****           | 1750                | 2000 | 1800    |
|   | 33 nF                            | 3,3 $\times$ 5,6 $\times$ 16,5                      | B32562-J6333-****           | 1750                | 2000 | 1800    |
|   | 47 nF                            | 3,3 $\times$ 5,6 $\times$ 16,5                      | B32562-J6473-****           | 1870                | 2100 | 1800    |
|   | 68 nF                            | 3,3 $\times$ 5,6 $\times$ 16,5                      | B32562-J6683-****           | 1800                | 2000 | 1800    |
|   | 0,10 $\mu$ F                     | 3,3 $\times$ 5,6 $\times$ 16,5                      | B32562-J6104-****           | 1700                | 1900 | 1600    |
|   | 0,15 $\mu$ F                     | 3,9 $\times$ 6,5 $\times$ 16,5                      | B32562-J6154-****           | 1420                | 1600 | 1200    |
|   | 0,22 $\mu$ F                     | 4,7 $\times$ 7,5 $\times$ 16,5                      | B32562-J6224-****           | 1240                | 1300 | 850     |
|   | 0,33 $\mu$ F                     | 6,0 $\times$ 8,3 $\times$ 16,5                      | B32562-J6334-****           | 960                 | 1000 | 500     |
|   | 0,47 $\mu$ F                     | 7,3 $\times$ 9,3 $\times$ 16,5                      | B32562-J6474-****           | 790                 | 900  | 450     |
|   | 0,68 $\mu$ F                     | 8,9 $\times$ 10,8 $\times$ 16,5                     | B32562-J6684-****           | 640                 | 700  | 300     |
|   | 1,0 $\mu$ F                      | 10,9 $\times$ 12,5 $\times$ 16,5                    | B32562-J6105-+              | –                   | –    | 200     |
| 630 Vdc<br>(350 Vac)                      | 0,10 $\mu$ F                     | 6,2 $\times$ 9,3 $\times$ 16,5                      | B32562-J8104-+              | –                   | –    | 700     |
|   | 0,15 $\mu$ F                     | 7,6 $\times$ 10,8 $\times$ 16,5                     | B32562-J8154-+              | –                   | –    | 500     |
|   | 0,22 $\mu$ F                     | 9,2 $\times$ 12,2 $\times$ 16,5                     | B32562-J8224-+              | –                   | –    | 350     |
|   | 0,33 $\mu$ F                     | 11,2 $\times$ 14,2 $\times$ 16,5                    | B32562-J8334-+              | –                   | –    | 250     |
|   | 0,47 $\mu$ F                     | 13,5 $\times$ 16,3 $\times$ 16,5                    | B32562-J8474-+              | –                   | –    | 180     |

Capacitance tolerance:  $\pm 20\% \hat{=}$  M,  $\pm 10\% \hat{=}$  K,  $\pm 5\% \hat{=}$  J

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

1) Replace the + by the code letter for the required capacitance tolerance.  
 Replace the \*\*\* by the code number for the required packing: Ammo pack = 289, reel = 189  
 The ordering code for untaped components ends after the tolerance code letter.


**Ordering codes and packing units, lead spacing 22,5 mm**

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$        | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs)<br>Untaped |
|---|--------------|---|-----------------------------|--------------------------------|
| 100 Vdc<br>(63Vac)                        | 1,5 $\mu$ F  | 5,0 $\times$ 8,0 $\times$ 24,0                      | B32563-J1155-+              | 1400                           |
|   | 2,2 $\mu$ F  | 5,0 $\times$ 8,2 $\times$ 24,0                      | B32563-J1225-+              | 1900                           |
|   | 3,3 $\mu$ F  | 5,0 $\times$ 8,2 $\times$ 24,0                      | B32563-J1335-+              | 1900                           |
|   | 4,7 $\mu$ F  | 5,9 $\times$ 9,0 $\times$ 24,0                      | B32563-J1475-+              | 1600                           |
|   | 6,8 $\mu$ F  | 7,0 $\times$ 10,5 $\times$ 24,0                     | B32563-J1685-+              | 920                            |
|   | 10 $\mu$ F   | 8,6 $\times$ 12,2 $\times$ 24,0                     | B32563-J1106-+              | 960                            |
|   | 15 $\mu$ F   | 10,9 $\times$ 14,0 $\times$ 24,0                    | B32563-J1156-+              | 620                            |
|   | 22 $\mu$ F   | 12,8 $\times$ 17,2 $\times$ 24,0                    | B32563-J1226-+              | 360                            |
| 250 Vdc<br>(160 Vac)                      | 0,68 $\mu$ F | 4,8 $\times$ 7,2 $\times$ 24,0                      | B32563-J3684-+              | 1760                           |
|   | 1,0 $\mu$ F  | 5,6 $\times$ 8,2 $\times$ 24,0                      | B32563-J3105-+              | 1140                           |
|   | 1,5 $\mu$ F  | 6,9 $\times$ 9,5 $\times$ 24,0                      | B32563-J3155-+              | 920                            |
|   | 2,2 $\mu$ F  | 8,3 $\times$ 11,2 $\times$ 24,0                     | B32563-J3225-+              | 740                            |
|   | 3,3 $\mu$ F  | 10,1 $\times$ 13,5 $\times$ 24,0                    | B32563-J3335-+              | 700                            |
|   | 4,7 $\mu$ F  | 12,2 $\times$ 15,5 $\times$ 24,0                    | B32563-J3475-+              | 390                            |
| 400 Vdc<br>(200Vac)                       | 0,22 $\mu$ F | 5,1 $\times$ 8,0 $\times$ 24,0                      | B32563-J6224-+              | 1800                           |
|   | 0,33 $\mu$ F | 5,1 $\times$ 8,0 $\times$ 24,0                      | B32563-J6334-+              | 1700                           |
|   | 0,47 $\mu$ F | 5,7 $\times$ 8,3 $\times$ 24,0                      | B32563-J6474-+              | 1660                           |
|   | 0,68 $\mu$ F | 6,9 $\times$ 9,6 $\times$ 24,0                      | B32563-J6684-+              | 920                            |
|   | 1,0 $\mu$ F  | 8,3 $\times$ 11,2 $\times$ 24,0                     | B32563-J6105-+              | 850                            |
|   | 1,5 $\mu$ F  | 10,3 $\times$ 13,2 $\times$ 24,0                    | B32563-J6155-+              | 660                            |
|   | 2,2 $\mu$ F  | 12,6 $\times$ 15,5 $\times$ 24,0                    | B32563-J6225-+              | 360                            |

Capacitance tolerance:  $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

1) Replace the + by the code letter for the required capacitance tolerance.



## B 32 564

### Ordering codes and packing units, lead spacing 27,5 mm

| $V_R$<br>( $V_{rms}$ ,<br>$f \leq 60$ Hz) | $C_R$       | Maximum<br>dimensions<br>$b \times h \times l$ (mm) | Ordering code <sup>1)</sup> | Packing units (pcs)<br>Untaped |
|---|-------------|---|-----------------------------|--------------------------------|
| 100 Vdc<br>(63Vac)                        | 4,7 $\mu$ F | 5,6 $\times$ 8,3 $\times$ 29,0                      | B32564-J1475-+              | 1000                           |
|   | 6,8 $\mu$ F | 6,3 $\times$ 9,5 $\times$ 29,0                      | B32564-J1685-+              | 820                            |
|   | 10 $\mu$ F  | 7,6 $\times$ 11,0 $\times$ 29,0                     | B32564-J1106-+              | 680                            |
|   | 15 $\mu$ F  | 9,1 $\times$ 13,5 $\times$ 29,0                     | B32564-J1156-+              | 430                            |
|   | 22 $\mu$ F  | 11,0 $\times$ 16,0 $\times$ 29,0                    | B32564-J1226-+              | 320                            |
|   | 33 $\mu$ F  | 13,0 $\times$ 19,8 $\times$ 29,0                    | B32564-J1336-+              | 360                            |
| 250 Vdc<br>(160 Vac)                      | 1,0 $\mu$ F | 5,1 $\times$ 7,6 $\times$ 29,0                      | B32564-J3105-+              | 1620                           |
|   | 1,5 $\mu$ F | 5,3 $\times$ 10,2 $\times$ 29,0                     | B32564-J3155-+              | 970                            |
|   | 2,2 $\mu$ F | 6,4 $\times$ 11,8 $\times$ 29,0                     | B32564-J3225-+              | 920                            |
|   | 3,3 $\mu$ F | 7,9 $\times$ 14,0 $\times$ 29,0                     | B32564-J3335-+              | 750                            |
|   | 4,7 $\mu$ F | 9,6 $\times$ 15,8 $\times$ 29,0                     | B32564-J3475-+              | 400                            |
|   | 6,8 $\mu$ F | 11,9 $\times$ 18,0 $\times$ 29,0                    | B32564-J3685-+              | 300                            |
| 400 Vdc<br>(200 Vac)                      | 1,0 $\mu$ F | 13,8 $\times$ 22,5 $\times$ 29,0                    | B32564-J3106-+              | 280                            |
|   | 1,5 $\mu$ F | 6,8 $\times$ 11,2 $\times$ 29,0                     | B32564-J6105-+              | 750                            |
|   | 2,2 $\mu$ F | 7,8 $\times$ 14,2 $\times$ 29,0                     | B32564-J6155-+              | 750                            |
|   | 3,3 $\mu$ F | 9,6 $\times$ 16,4 $\times$ 29,0                     | B32564-J6225-+              | 400                            |
|   | 4,7 $\mu$ F | 12,2 $\times$ 18,8 $\times$ 29,0                    | B32564-J6335-+              | 330                            |
|   | 6,8 $\mu$ F | 14,2 $\times$ 22,8 $\times$ 29,0                    | B32564-J6475-+              | 260                            |
| 420 Vdc<br>(200 Vac)                      | 4,7 $\mu$ F | 16,0 $\times$ 20,0 $\times$ 29,0                    | B32564-T6475-K              | 290                            |
|   | 5,6 $\mu$ F | 16,0 $\times$ 20,0 $\times$ 29,0                    | B32564-T6565-K              | 290                            |
|   | 6,8 $\mu$ F | 16,0 $\times$ 20,0 $\times$ 29,0                    | B32564-T6685-K              | 290                            |

Capacitance tolerance:  $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request. For corresponding design rules, [refer to page 238](#).

1) Replace the + by the code letter for the required capacitance tolerance.



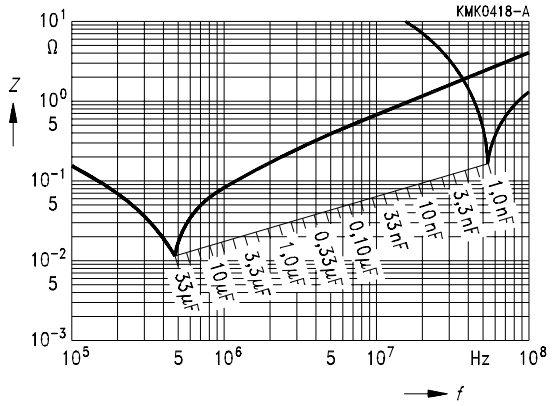
**Technical data**

|  |  |  |  |                       |
|--|--|--|--|-----------------------|
| Climatic category in accordance with IEC 68-1  | 55/100/56 <sup>1)</sup>  |  |  |                       |
| Lower category temperature $T_{\min}$  | - 55 °C  |  |  |                       |
| Upper category temperature $T_{\max}$  | + 100 °C (+ 125 °C for 1000 h and $V_C = 0,5 \cdot V_R$ )                                      |  |  |                       |
| Damp heat test   | 56 days/40 °C/93 % relative humidity   |  |  |                       |
| Limit values after damp heat test <sup>1)</sup>  | Capacitance change $ \Delta C/C $  | $\leq 5 \%$                              |  |                       |
|  | Dissipation factor change $\Delta \tan \delta$   | $\leq 3 \cdot 10^{-3}$ (at 1 kHz)        |  |                       |
|  |  | $\leq 5 \cdot 10^{-3}$ (at 10 kHz)       |  |                       |
|  | Insulation resistance $R_{is}$   | $\geq 50 \%$ of minimum                  |  |                       |
|  | or time constant $\tau = C_R \cdot R_{is}$   | as-delivered values                      |  |                       |
| Reliability:   |  |  |  |                       |
| Reference conditions   | 0,5 · $V_R$ ; 40 °C  |  |  |                       |
| Failure rate   | 2 · 10 <sup>-9</sup> /h = 2 fit  |  |  |                       |
|  | For a conversion table for other operating conditions and temperatures, refer to page 276.     |  |  |                       |
| Service life   | 200 000 h  |  |  |                       |
| Failure criteria:  |  |  |  |                       |
| Total failure  | Short circuit or open circuit  |  |  |                       |
| Failure due to variation of parameters   | Capacitance change $ \Delta C/C $  | > 10 %                                   |  |                       |
|  | Dissipation factor $\tan \delta$   | > 2 · upper limit value                  |  |                       |
|  | Insulation resistance $R_{is}$   | < 150 MΩ ( $C_R \leq 0,33 \mu\text{F}$ ) |  |                       |
|  | or time constant $\tau = C_R \cdot R_{is}$   | < 50 s ( $C_R > 0,33 \mu\text{F}$ )      |  |                       |
| DC test voltage  | 1,4 · $V_R$ , 2 s  |  |  |                       |
| Category voltage $V_C$   | $T \leq 85 \text{ °C}$ : $V_C = 1,0 \cdot V_R$ or $1,0 \cdot V_{\text{rms}}$                   |  |  |                       |
| Operation with dc voltage or ac voltage $V_{\text{rms}}$ up to 60 Hz   | $T \leq 100 \text{ °C}$ : $V_C = 0,8 \cdot V_R$ or $0,8 \cdot V_{\text{rms}}$                  |  |  |                       |
| Category voltage for short operating periods   | $T \leq 100 \text{ °C}$ : $V_C = 1,25 \cdot V_R$ or $1,0 \cdot V_{\text{rms}}$ for max. 2000 h |  |  |                       |
|  | $T \leq 125 \text{ °C}$ : $V_C = 0,5 \cdot V_R$ or $0,5 \cdot V_{\text{rms}}$ for max. 1000 h  |  |  |                       |
| Dissipation factor $\tan \delta$ (in 10 <sup>-3</sup> ) at 20 °C (upper limit values)  |  | $C_R \leq 0,1 \mu\text{F}$               | $0,1 \mu\text{F} < C_R \leq 1 \mu\text{F}$ | $C_R > 1 \mu\text{F}$ |
|  | at 1 kHz   | 8  | 8  | 10                    |
|  | 10 kHz   | 15                                       | 15   | –                     |
|  | 100 kHz  | 30                                       | –  | –                     |
| Insulation resistance $R_{is}$ or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity $\leq 65 \%$ (minimum as-delivered values) | $V_R$  | $C_R \leq 0,33 \mu\text{F}$              | $C_R > 0,33 \mu\text{F}$                   |                       |
|  | $\leq 100 \text{ Vdc}$   | 3750 MΩ                                  | 1250 s                                     |                       |
|  | $\geq 250 \text{ Vdc}$   | 7500 MΩ                                  | 2500 s                                     |                       |

1) According to CECC 30401-007, test criteria must be met after exposure to damp heat for 21 days.



Impedance  $Z$   
versus  
frequency  $f$   
(typical values)



**Pulse handling capability**

Maximum permissible voltage change per unit of time for non-sinusoidal voltages (pulse, sawtooth).

| $V_R$   | Max. rate of voltage rise $V_{pp}/\tau$ in $V/\mu s$ (for $V_{pp} = V_R$ ) |       |       |         |         |
|---------|--|-------|-------|---------|---------|
|         | Lead spacing   |       |       |         |         |
|         | 7,5 mm   | 10 mm | 15 mm | 22,5 mm | 27,5 mm |
| 63 Vdc  | 120  | —     | —     | —       | —       |
| 100 Vdc | 150  | 75    | 50    | 50      | 25      |
| 250 Vdc | 200  | 150   | 100   | 100     | 50      |
| 400 Vdc | 275  | 175   | 125   | 125     | 60      |
| 420 Vdc | —  | —     | —     | —       | 60      |
| 630 Vdc | 320  | —     | 150   | —       | —       |

For  $V_{pp} < V_R$ , the permissible voltage rise rate value  $V_{pp}/\tau$  may be multiplied by the factor  $V_R/V_{pp}$ . Also refer to the calculation example on [page 250](#).

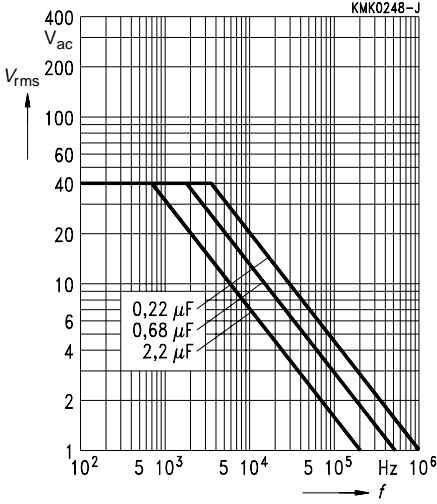
| $V_R$   | Pulse characteristic $k_0$ in $V^2/\mu s$ (for $V_{pp} \leq V_R$ ) |         |         |         |         |
|---------|--|---------|---------|---------|---------|
|         | Lead spacing   |         |         |         |         |
|         | 7,5 mm   | 10 mm   | 15 mm   | 22,5 mm | 27,5 mm |
| 63 Vdc  | 15 000   | —       | —       | —       | —       |
| 100 Vdc | 30 000   | 15 000  | 10 000  | 10 000  | 5 000   |
| 250 Vdc | 100 000  | 75 000  | 50 000  | 50 000  | 25 000  |
| 400 Vdc | 220 000  | 140 000 | 100 000 | 100 000 | 50 000  |
| 420 Vdc | —  | —       | —       | —       | 50 000  |
| 630 Vdc | 400 000  | —       | 190 000 | —       | —       |



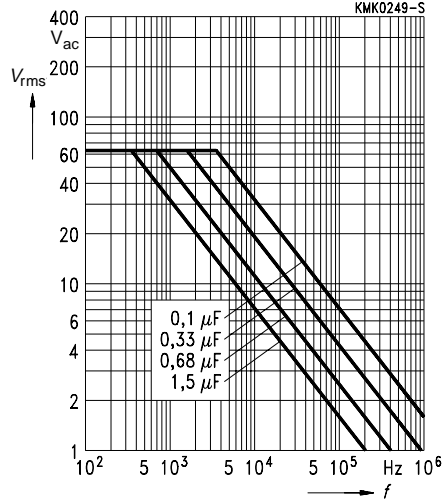
Permissible ac voltage  $V_{rms}$  versus frequency  $f$

Lead spacing 7,5 mm

63 Vdc/ 40 Vac



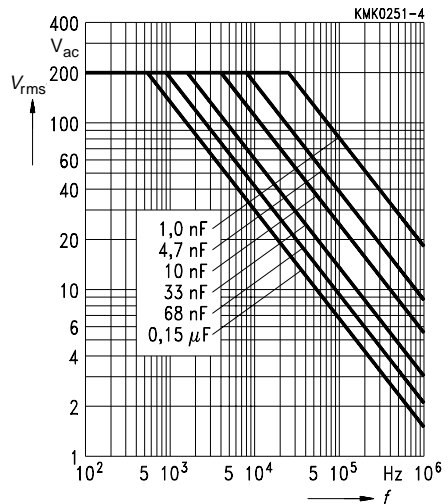
100 Vdc/ 63 Vac



250Vdc/ 160Vac



400 Vdc/ 200 Vac





**B 32 560**

**Permissible ac voltage  $V_{rms}$  versus frequency  $f$**   
**Lead spacing 7,5 mm**

630 Vdc/ 400 Vac





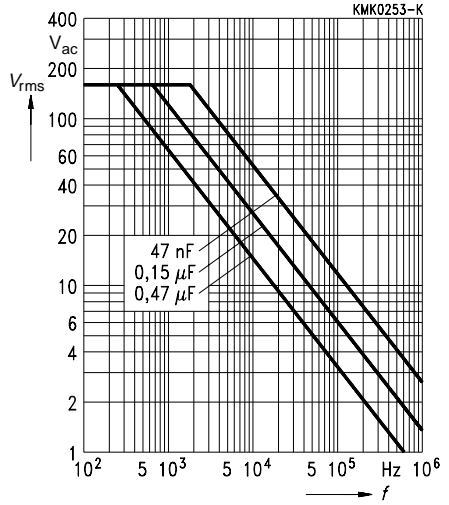
Permissible ac voltage  $V_{rms}$  versus frequency  $f$

Lead spacing 10 mm

100 Vdc/ 63 Vac



250 Vdc/ 160 Vac



400 Vdc/ 200 Vac





B 32 562

Permissible ac voltage  $V_{rms}$  versus frequency  $f$

Lead spacing 15 mm

100 Vdc/63 Vac



250 Vdc/ 160 Vac



400 Vdc/200 Vac



630 Vdc/350 Vac





Permissible ac voltage  $V_{rms}$  versus frequency  $f$

Lead spacing 22,5 mm

100 Vdc/ 63 Vac



250 Vdc/ 160 Vac



400 Vdc/ 200 Vac





B 32 564

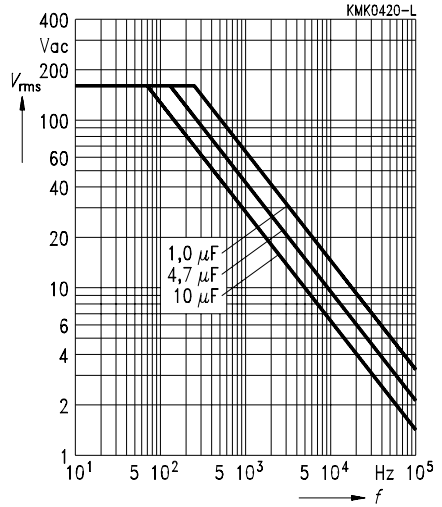
Permissible ac voltage  $V_{rms}$  versus frequency  $f$

Lead spacing 27,5 mm

100 Vdc/ 63 Vac



250 Vdc/ 160 Vac



400 Vdc/ 200 Vac

