

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 $(3,2 \pm 0,3)$ mm lead length upon request
- Taped version of B32560 are also available with lead spacing 5 mm (leads bent from 7,5 spacing to 5 mm)

Marking

Rated capacitance (coded),
 rated dc voltage

Delivery mode

Bulk (untaped)

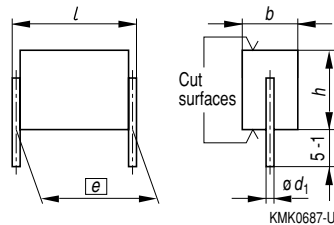
Taped (AMMO pack or reel) for
 lead spacing $\leq 15,0$ mm.

For notes on taping, refer to chapter "Taping and packing", page 274.

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 | 43 | 45 | 46 | 47 | 48 |
| 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 ¹⁾ | | | | | |
| 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 (V_{rms} , $f \leq 60$ Hz) | C_R | Maximum dimensions $b \times h \times l$ (mm) | Ordering code ¹⁾ | Packing units (pcs) | | |
|---|---------------------------------|---|-----------------------------|---------------------|------|---------|
| | | | | Ammo pack | Reel | Untaped |
| 63 Vdc (40 Vac) | 0,22 μ F | 2,5 \times 5,2 \times 9,0 | B32560-J224-+ | 2) | 2) | 2500 |
| | 0,33 μ F | 2,5 \times 5,6 \times 9,0 | B32560-J334-+ | 2) | 2) | 2500 |
| | 0,47 μ F | 2,6 \times 5,8 \times 9,0 | B32560-J474-+**** | 3250 | 2600 | 2000 |
| | 0,68 μ F | 3,2 \times 6,2 \times 9,0 | B32560-J684-+**** | 2850 | 2300 | 1500 |
| | 1,0 μ F | 4,0 \times 6,8 \times 9,0 | B32560-J105-+**** | 2200 | 1800 | 1000 |
| | 1,5 μ F | 5,1 \times 7,6 \times 9,0 | B32560-J155-+**** | 1700 | 1400 | 500 |
| | 2,2 μ F | 6,5 \times 8,2 \times 9,0 | B32560-J225-+**** | 1300 | 1100 | 500 |
| | 3,3 μ F | 8,5 \times 9,1 \times 9,0 | B32560-J335-+ | – | – | 350 |
| | 4,7 μ F | 9,8 \times 11,0 \times 9,0 | B32560-J475-+ | – | – | 250 |
| 6,8 μ F | 11,5 \times 13,3 \times 9,0 | B32560-J685-+ | – | – | 150 | |
| 100 Vdc (63 Vac) | 0,10 μ F | 2,5 \times 4,7 \times 9,0 | B32560-J1104-+ | 2) | 2) | 3000 |
| | 0,15 μ F | 2,5 \times 4,7 \times 9,0 | B32560-J1154-+ | 2) | 2) | 3000 |
| | 0,22 μ F | 2,5 \times 5,1 \times 9,0 | B32560-J1224-+**** | 3400 | 2700 | 2000 |
| | 0,33 μ F | 2,7 \times 5,7 \times 9,0 | B32560-J1334-+**** | 3100 | 2500 | 1500 |
| | 0,47 μ F | 3,4 \times 6,1 \times 9,0 | B32560-J1474-+**** | 2500 | 2000 | 1200 |
| | 0,68 μ F | 4,2 \times 6,5 \times 9,0 | B32560-J1684-+**** | 2000 | 1600 | 1000 |
| | 1,0 μ F | 5,5 \times 7,0 \times 9,0 | B32560-J1105-+**** | 1600 | 1300 | 500 |
| | 1,5 μ F | 6,7 \times 8,2 \times 9,0 | B32560-J1155-+ | – | – | 400 |
| | 2,2 μ F | 8,5 \times 9,2 \times 9,0 | B32560-J1225-+ | – | – | 300 |
| 250 Vdc (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 μ F | 3,2 \times 6,1 \times 9,0 | B32560-J3104-+**** | 2650 | 2200 | 1200 |
| | 0,15 μ F | 3,9 \times 7,0 \times 9,0 | B32560-J3154-+**** | 2150 | 1800 | 1000 |
| | 0,22 μ F | 4,9 \times 7,5 \times 9,0 | B32560-J3224-+**** | 1750 | 1400 | 650 |
| | 0,33 μ 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 chapter "General technical information", page 290.

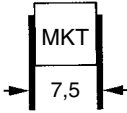
1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

Lead spacing changed from 7,5 to 5 mm by bending leads: Ammo pack = 259, reel = 159

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 (V_{rms} , $f \leq 60$ Hz) | C_R | Maximum dimensions $b \times h \times l$ (mm) | Ordering code ¹⁾ | Packing units (pcs) | | |
|---|---------|---|-----------------------------|---------------------|------|---------|
| | | | | Ammo pack | Reel | Untaped |
| 400 Vdc (200 Vac) | 1,0 nF | 2,5 × 5,5 × 9,0 | B32560-J6102-+ | 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 (400 Vac) | 1,0 nF | 2,5 × 5,5 × 9,0 | B32560-J8102-+ | 2) | 2) | 2300 |
| | 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: ±20 % $\hat{=}$ M, ±10 % $\hat{=}$ K, ±5 % $\hat{=}$ J

Special dimensions available upon request.

For corresponding design rules, refer to chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

Lead spacing changed from 7,5 to 5 mm by bending leads: Ammo pack = 259, reel = 159

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

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

Special dimensions available upon request.

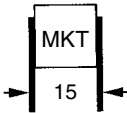
For corresponding design rules, refer to chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance

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

1) + Code letter for capacitance tolerance

*** Code number for 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

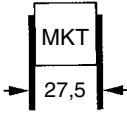
| V_R (V_{rms} , $f \leq 60$ Hz) | C_R | Maximum dimensions $b \times h \times l$ (mm) | Ordering code ¹⁾ | Packing units (pcs) Untaped |
|---|--------------|---|-----------------------------|--------------------------------|
| 100 Vdc (63 Vac) | 3,3 μ F | 5,0 \times 8,2 \times 24,0 | B32563-J1335-+ | 1900 |
| | 4,7 μ F | 5,9 \times 9,0 \times 24,0 | B32563-J1475-+ | 1600 |
| | 6,8 μ F | 7,0 \times 10,5 \times 24,0 | B32563-J1685-+ | 920 |
| | 10 μ F | 8,6 \times 12,2 \times 24,0 | B32563-J1106-+ | 960 |
| | 15 μ F | 10,9 \times 14,0 \times 24,0 | B32563-J1156-+ | 620 |
| | 22 μ F | 12,8 \times 17,2 \times 24,0 | B32563-J1226-+ | 360 |
| 250 Vdc (160 Vac) | 0,68 μ F | 4,8 \times 7,2 \times 24,0 | B32563-J3684-+ | 1760 |
| | 1,0 μ F | 5,6 \times 8,2 \times 24,0 | B32563-J3105-+ | 1140 |
| | 1,5 μ F | 6,9 \times 9,5 \times 24,0 | B32563-J3155-+ | 920 |
| | 2,2 μ F | 8,3 \times 11,2 \times 24,0 | B32563-J3225-+ | 740 |
| | 3,3 μ F | 10,1 \times 13,5 \times 24,0 | B32563-J3335-+ | 700 |
| | 4,7 μ F | 12,2 \times 15,5 \times 24,0 | B32563-J3475-+ | 390 |
| 400 Vdc (200Vac) | 0,33 μ F | 5,1 \times 8,0 \times 24,0 | B32563-J6334-+ | 1700 |
| | 0,47 μ F | 5,7 \times 8,3 \times 24,0 | B32563-J6474-+ | 1660 |
| | 0,68 μ F | 6,9 \times 9,6 \times 24,0 | B32563-J6684-+ | 920 |
| | 1,0 μ F | 8,3 \times 11,2 \times 24,0 | B32563-J6105-+ | 850 |
| | 1,5 μ F | 10,3 \times 13,2 \times 24,0 | B32563-J6155-+ | 660 |
| | 2,2 μ 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 chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance


B 32 564
Ordering codes and packing units, lead spacing 27,5 mm

| V_R (V_{rms} , $f \leq 60$ Hz) | C_R | Maximum dimensions $b \times h \times l$ (mm) | Ordering code ¹⁾ | Packing units (pcs) Untaped |
|---|-------------|---|-----------------------------|--------------------------------|
| 100 Vdc (63Vac) | 4,7 μ F | 5,6 \times 8,3 \times 29,0 | B32564-J1475-+ | 1000 |
| | 6,8 μ F | 6,3 \times 9,5 \times 29,0 | B32564-J1685-+ | 820 |
| | 10 μ F | 7,6 \times 11,0 \times 29,0 | B32564-J1106-+ | 680 |
| | 15 μ F | 9,1 \times 13,5 \times 29,0 | B32564-J1156-+ | 430 |
| | 22 μ F | 11,0 \times 16,0 \times 29,0 | B32564-J1226-+ | 320 |
| | 33 μ F | 13,0 \times 19,8 \times 29,0 | B32564-J1336-+ | 360 |
| 250 Vdc (160 Vac) | 1,0 μ F | 5,1 \times 7,6 \times 29,0 | B32564-J3105-+ | 1620 |
| | 1,5 μ F | 5,3 \times 10,2 \times 29,0 | B32564-J3155-+ | 970 |
| | 2,2 μ F | 6,4 \times 11,8 \times 29,0 | B32564-J3225-+ | 920 |
| | 3,3 μ F | 7,9 \times 14,0 \times 29,0 | B32564-J3335-+ | 750 |
| | 4,7 μ F | 9,6 \times 15,8 \times 29,0 | B32564-J3475-+ | 400 |
| | 6,8 μ F | 11,9 \times 18,0 \times 29,0 | B32564-J3685-+ | 300 |
| | 10 μ F | 13,8 \times 22,5 \times 29,0 | B32564-J3106-+ | 280 |
| 400 Vdc (200 Vac) | 1,0 μ F | 6,8 \times 11,2 \times 29,0 | B32564-J6105-+ | 750 |
| | 1,5 μ F | 7,8 \times 14,2 \times 29,0 | B32564-J6155-+ | 750 |
| | 2,2 μ F | 9,6 \times 16,4 \times 29,0 | B32564-J6225-+ | 400 |
| | 3,3 μ F | 12,2 \times 18,8 \times 29,0 | B32564-J6335-+ | 330 |
| | 4,7 μ F | 14,2 \times 22,8 \times 29,0 | B32564-J6475-+ | 260 |
| 420 Vdc (200 Vac) | 4,7 μ F | 16,0 \times 20,0 \times 29,0 | B32564-T6475-K | 290 |
| | 5,6 μ F | 16,0 \times 20,0 \times 29,0 | B32564-T6565-K | 350 |
| | 6,8 μ 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 chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance

Technical data

| | | | | |
|---|---|---|--|-----------------------|
| Climatic category in accordance with IEC 60068-1 | 55/100/56 ¹⁾ | | | |
| 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 ¹⁾ | Capacitance change $ \Delta C/C $ | ≤ 5 % | | |
| | Dissipation factor change $\Delta \tan \delta$ | ≤ 3 · 10 ^{–3} (at 1 kHz) | | |
| | | ≤ 5 · 10 ^{–3} (at 10 kHz) | | |
| | Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$ | ≥ 50 % of minimum as-delivered values | | |
| Reliability: | | | | |
| Reference conditions | 0,5 · V_R ; 40 °C | | | |
| Failure rate | 2 · 10 ^{–9} /h = 2 fit | | | |
| | For a conversion table for other operating conditions and temperatures, refer to chapter “Quality assurance”, page 327. | | | |
| 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} or time constant $\tau = C_R \cdot R_{is}$ | < 150 MΩ ($C_R \leq 0,33 \mu\text{F}$) < 50 s ($C_R > 0,33 \mu\text{F}$) | | |
| DC test voltage | 1,4 · V_R , 2 s | | | |
| Category voltage V_C | $T \leq 85 \text{ °C}$ | $V_C = 1,0 \cdot V_R$ | $V_{C,rms} = 1,0 \cdot V_{rms}$ | |
| Operation with dc voltage or ac voltage V_{rms} up to 60 Hz | $T \leq 100 \text{ °C}$ | $V_C = 0,8 \cdot V_R$ | $V_{C,rms} = 0,8 \cdot V_{rms}$ | |
| Operating voltage for short operating periods | $T \leq 85 \text{ °C}$ | $V = 1,25 \cdot V_C$, max. 2000 h | $V = 1,0 \cdot V_{C,rms}$, max. 2000 h | |
| | $T \leq 100 \text{ °C}$ | $V = 1,25 \cdot V_C$, max. 2000 h | $V = 1,0 \cdot V_{C,rms}$, max. 2000 h | |
| | $T \leq 125 \text{ °C}$ | $V = 0,5 \cdot V_R$, max. 1000 h | $V = 0,5 \cdot V_{rms}$, max. 1000 h | |
| Dissipation factor $\tan \delta$ (in 10 ^{–3}) 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 ≤ 65 % (minimum as-delivered values) | V_R | $C_R \leq 0,33 \mu\text{F}$ | $C_R > 0,33 \mu\text{F}$ | |
| | ≤ 100 Vdc | 3750 MΩ | 1250 s | |
| | ≥ 250 Vdc | 7500 MΩ | 2500 s | |

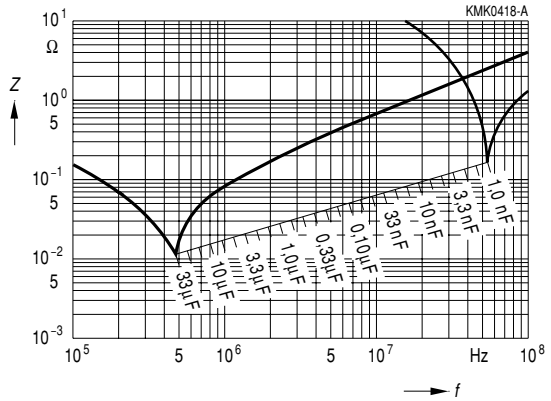
1) Test criteria must be met after exposure to damp heat for 21 days.



B 32 560 ...

B 32 564

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}/τ 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}/τ may be multiplied by the factor V_R/V_{pp} . Also refer to the calculation example in chapter “General technical information”, page 302.

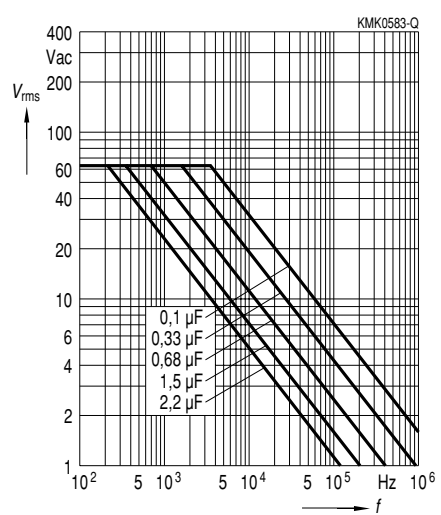
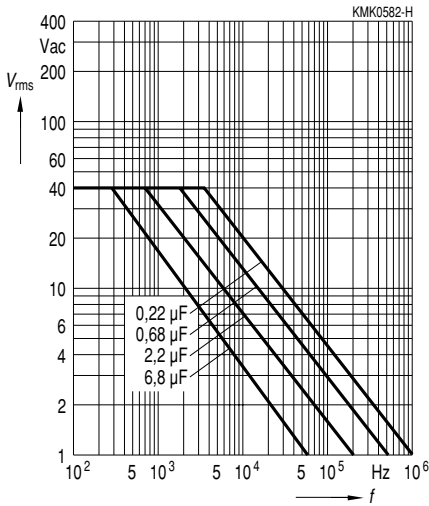
| V_R | Pulse characteristic k_0 in $V^2/\mu s$ (for $V_{pp} \leq V_R$) | | | | |
|---------|--|---------|---------|---------|---------|
| | Lead spacing | | | | |
| | 7,5 mm | 10 mm | 15 mm | 22,5 mm | 27,5 mm |
| 63 Vdc | 15 000 | – | – | – | – |
| 100 Vdc | 30 000 | 15 000 | 10 000 | 10 000 | 5 000 |
| 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

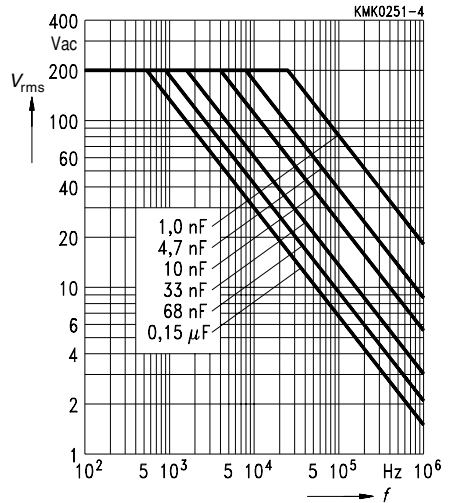
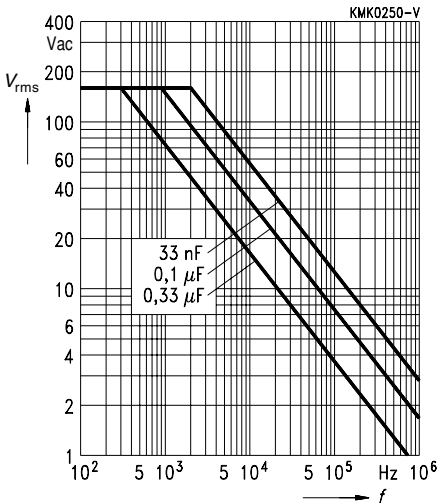
63 Vdc/ 40 Vac

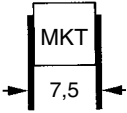
100 Vdc/ 63 Vac



250Vdc/ 160Vac

400 Vdc/ 200 Vac

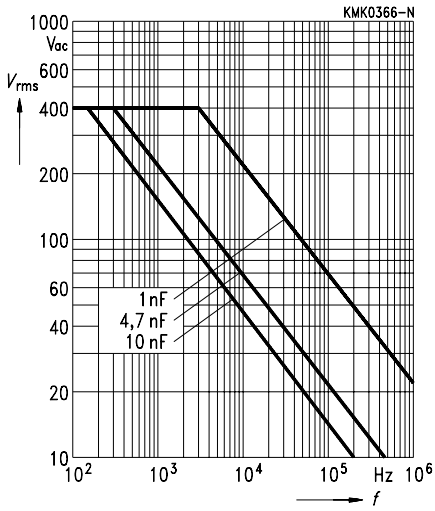




B 32 560

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

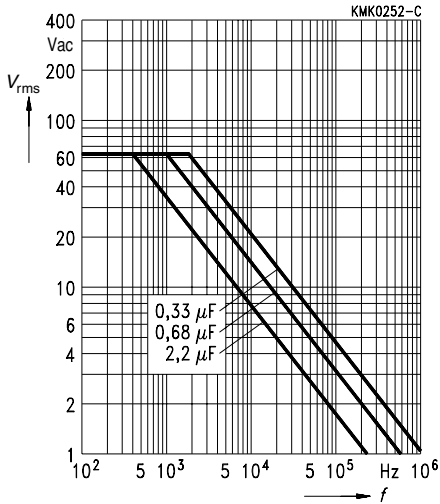
630 Vdc/ 400 Vac



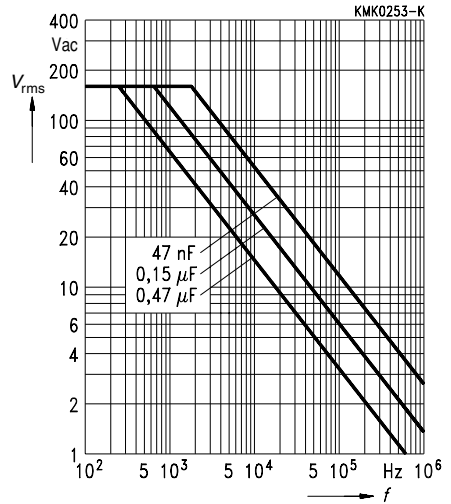
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 10 mm

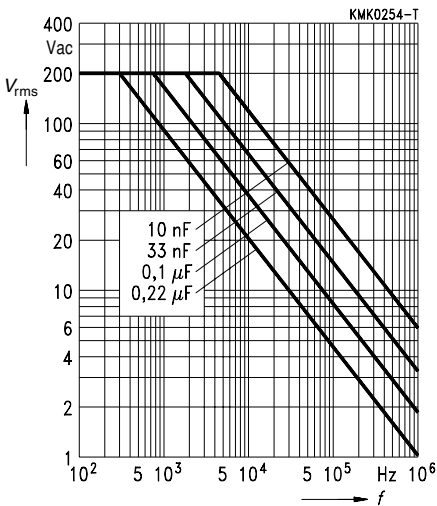
100 Vdc/63 Vac

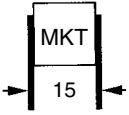


250 Vdc/ 160 Vac



400 Vdc/200 Vac



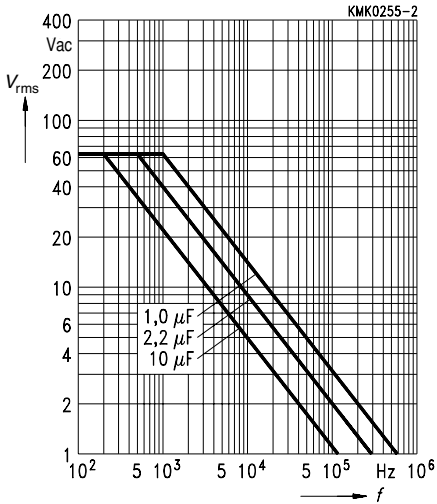


B 32 562

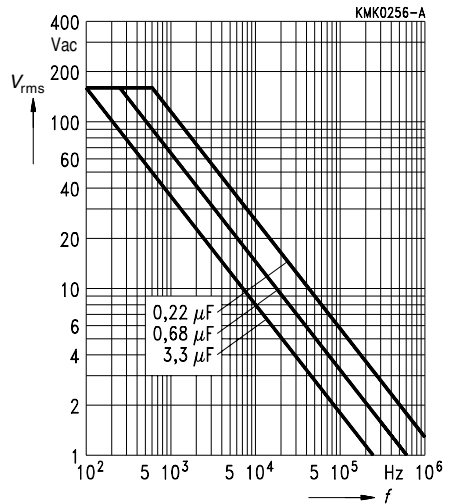
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 15 mm

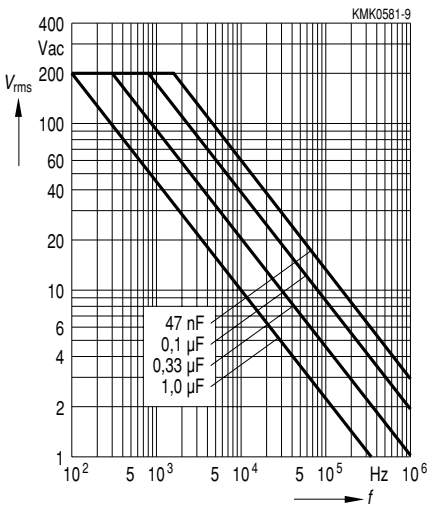
100 Vdc/63 Vac



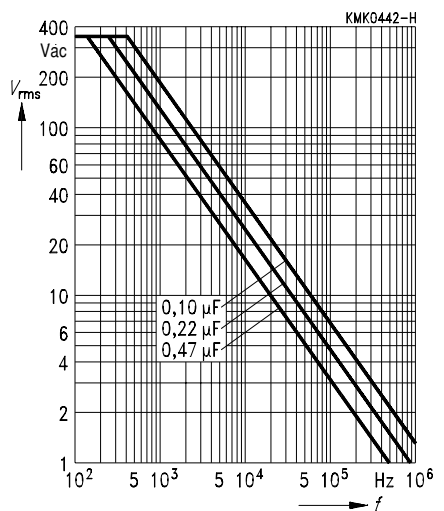
250 Vdc/ 160 Vac



400 Vdc/200 Vac



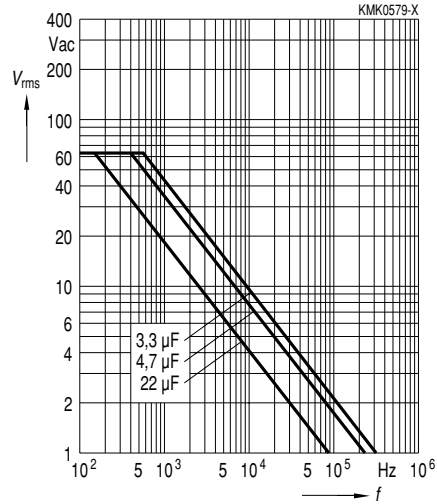
630 Vdc/350 Vac



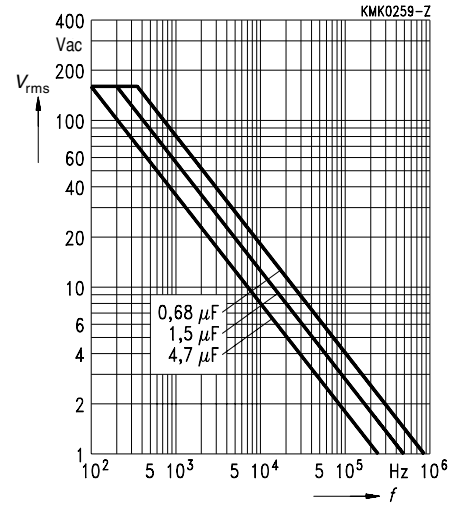
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 22,5 mm

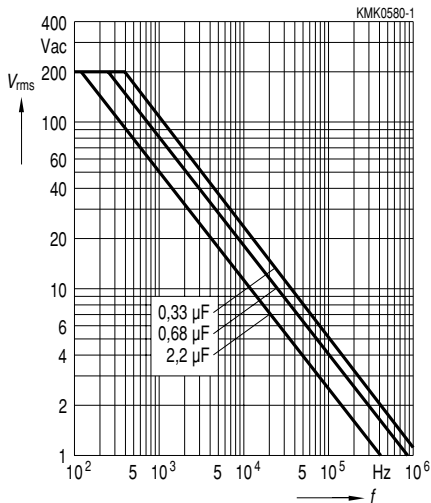
100 Vdc/63 Vac

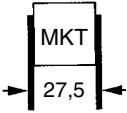


250 Vdc/160 Vac



400 Vdc/200 Vac



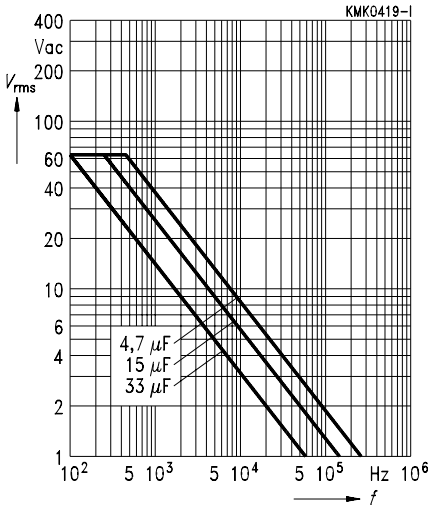


B 32 564

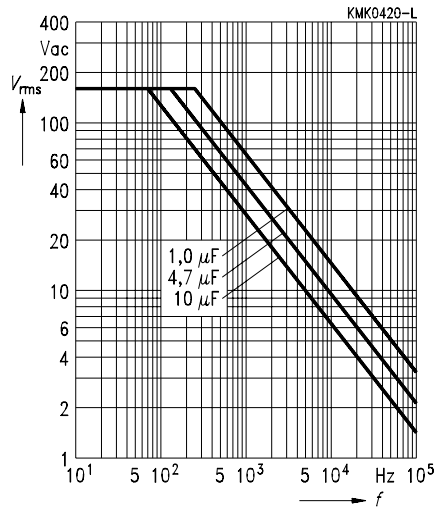
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 27,5 mm

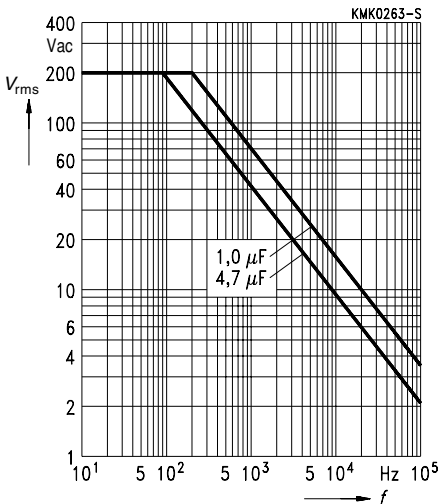
100 Vdc/63 Vac



250 Vdc/ 160 Vac



400 Vdc/200 Vac



Herausgegeben von EPCOS AG

Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

© EPCOS AG 2000. Alle Rechte vorbehalten. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Mit den Angaben in dieser Broschüre werden die Bauelemente spezifiziert, keine Eigenschaften zugesichert. Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland.

Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

Published by EPCOS AG

Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.