**Wound MKP capacitors**
**Small dimensions**

### Construction

- Dielectric: polypropylene
- Wound capacitor technology
- Epoxy resin coating (UL 94 V-0)

### Features

- Very high pulse strength

### Typical applications

- TV S-correction
- Electronic ballast circuits
- High pulse load applications
- Small dimensions

### Terminals

- Crimped wire leads, tinned, lead length (6 – 1) mm or min. 20 mm
- Double crimped wire leads, tinned
- Different lead spacings (reduced and enlarged) available, lead length (6 – 1) mm

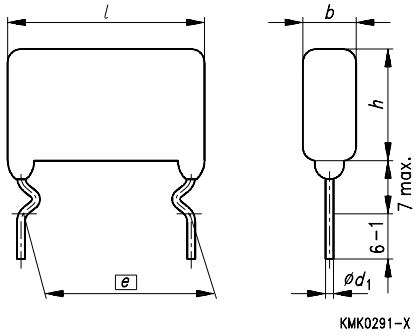
### Marking

Manufacturer's logo,
style and type (P6xx),
rated capacitance,
capacitance tolerance (code letter),
rated dc voltage,
date of manufacture (code)

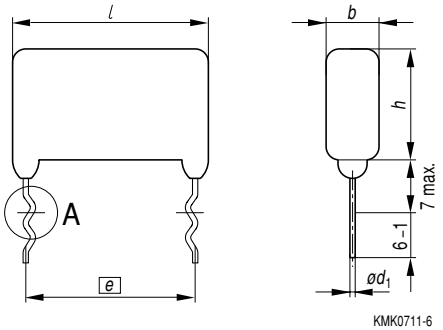
### Delivery mode

Bulk (untaped)
Taped (Ammo pack or reel)
For notes on taping,
refer to chapter "Taping and packing", page 274.

Crimped version



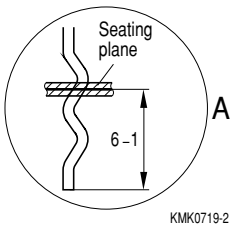

Double crimped version




Dimensions in mm

| Lead spacing e ± 0,8 | Diameter $d_1$ | Type |
|---|---|---|
| 15,0 | 0,8 | B 32 612 |
| 22,5 | 0,8 | B 32 613 |
| 27,5 | 0,8 | B 32 614 |

Detail of double crimped version




# B 32 612 …
## B 32 614

**Overview of available types and lead configurations**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lead spacing | 15 mm | | | | | | |
| Type | B 32 612 | | | | | | |
| Page | 160 | | | | | | |
| 1,0 nF | | | | | | | 2000 Vdc 700 Vac |
| 1,5 nF | | | | | | | |
| 2,2 nF | | | | | | | |
| 3,3 nF | | | | | | 1600 Vdc 700 Vac | |
| 4,7 nF | | | | | 1600 Vdc 500 Vac | | |
| 6,8 nF | | | | | | | |
| 10 nF | | | | 1000 Vdc 250 Vac | | | |
| 15 nF | | | | | | | |
| 22 nF | | | | | | | |
| 33 nF | | | | | | | |
| 47 nF | | | | | | | |
| 68 nF | | 400Vdc 200 Vac | 630 Vdc 250 Vac | | | | |
| 0,10 µF | | | | | | | |
| 0,15 µF | 250 Vdc 160 Vac | | | | | | |
| 0,22 µF | | | | | | | |
| 0,33 µF | | | | | | | |
| 0,47 µF | | | | | | | |
| 0,68 µF | | | | | | | |
| Standard lead spacing |  | | | | | | |
| Reduced lead spacing |  | 7,5 mm<br>10 mm<br>12,5 mm | | | | | |
| Enlarged lead spacing |  | 17,5 mm | | | | | |
| Double crimped version |  | | | | | | |

**Overview of available types and lead configurations**

| Lead spacing | 22,5 mm | | | | | | 27,5 mm | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | B 32 613 | | | | | | B 32 614 | | | | |
| Page | 162 | | | | | | 163 | | | | |
| 3,3 nF | | | | | | 2000 Vdc 1000 Vac | | | | | |
| 4,7 nF | | | | | | | | | | | |
| 6,8 nF | | | | | | | | | | | |
| 10 nF | | | | | 1600 Vdc 500 Vac | | | | | | |
| 15 nF | | | | | | | | | | | |
| 22 nF | | | | | | | | | | | 1600 Vdc 500 Vac |
| 33 nF | | | | 1000 Vdc 250 Vac | | | | | | | |
| 47 nF | | | | | | | | | | | |
| 68 nF | | | | | | | | | | | |
| 0,10 µF | | | 630 Vdc 250 Vac | | | | | | | 1000 Vdc 250 Vac | |
| 0,15 µF | | 400 Vdc 200 Vac | | | | | | | | | |
| 0,22 µF | 250 Vdc 160 Vac | | | | | | | | | | |
| 0,33 µF | | | | | | | | | 630 Vdc 250 Vac | | |
| 0,47 µF | | | | | | | 250 Vdc 160 Vac | 400 Vdc 200 Vac | | | |
| 0,68 µF | | | | | | | | | | | |
| 1,0 µF | | | | | | | | | | | |
| 1,5 µF | | | | | | | | | | | |
| 2,2 µF | | | | | | | | | | | |
| Standard lead spacing |  | | | | | |  | | | | |
| Reduced lead spacing |  | 17,5 mm 20 mm | | | | |  | 25 mm | | | |
| Enlarged lead spacing |  | | | | | | | | | | |
| Double-crimped version |  | | | | | |  | | | | |

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

| $V_R$ ($V_{rms}$ $f \leq 1$ kHz) | $C_R$ | Maximum dimensions $b \times h \times l$ (mm) | Ordering code | Packing units (pcs) Ammo pack | Reel | Untaped (bulk) |
|---|---|---|---|---|---|---|
| 250 Vdc (160 Vac) | 0,15 µF | 6,5 × 12,5 × 18,0 | B32612-A3154-+*** | 1170 | 1300 | 1000 |
| | 0,22 µF | 7,0 × 13,5 × 18,0 | B32612-A3224-+*** | 960 | 1100 | 1000 |
| | 0,33 µF | 8,0 × 14,5 × 18,0 | B32612-A3334-+*** | 830 | 900 | 500 |
| | 0,47 µF | 9,5 × 16,0 × 18,0 | B32612-A3474-+*** | 680 | 700 | 500 |
| | 0,68 µF | 11,5 × 17,5 × 18,0 | B32612-A3684-+*** | 640 | 700 | 500 |
| 400 Vdc (200 Vac) | 68 nF | 6,5 × 12,0 × 18,0 | B32612-A4683-+*** | 1170 | 1300 | 1000 |
| | 0,10 µF | 7,0 × 12,5 × 18,0 | B32612-A4104-+*** | 1170 | 1300 | 1000 |
| | 0,15 µF | 7,5 × 12,5 × 18,0 | B32612-A4154-+*** | 960 | 1100 | 1000 |
| | 0,22 µF | 8,0 × 14,5 × 18,0 | B32612-A4224-+*** | 830 | 900 | 500 |
| | 0,33 µF | 9,5 × 16,0 × 18,0 | B32612-A4334-+*** | 680 | 700 | 500 |
| | 0,47 µF | 11,0 × 17,5 × 18,0 | B32612-A4474-+*** | 640 | 700 | 500 |
| 630 Vdc (250 Vac) | 68 nF | 6,5 × 12,0 × 18,0 | B32612-A6683-+*** | 960 | 1100 | 1000 |
| | 0,10 µF | 7,5 × 13,0 × 18,0 | B32612-A6104-+*** | 830 | 900 | 1000 |
| | 0,15 µF | 9,0 × 14,5 × 18,0 | B32612-A6154-+*** | 680 | 700 | 500 |
| | 0,22 µF | 10,0 × 16,5 × 18,0 | B32612-A6224-+*** | 640 | 700 | 500 |
| 1000 Vdc (250 Vac) | 10 nF | 7,0 × 12,5 × 18,0 | B32612-A0103-+*** | 1170 | 1300 | 1000 |
| | 15 nF | 8,0 × 13,5 × 18,0 | B32612-A0153-+*** | 1170 | 1300 | 1000 |
| | 22 nF | 9,0 × 15,5 × 18,0 | B32612-A0223-+*** | 1170 | 1300 | 1000 |
| | 33 nF | 6,5 × 13,0 × 18,0 | B32612-A0333-+*** | 960 | 1100 | 1000 |
| | 47 nF | 7,0 × 15,5 × 18,0 | B32612-A0473-+*** | 830 | 900 | 1000 |
| | 68 nF | 8,5 × 16,5 × 18,0 | B32612-A0683-+*** | 680 | 700 | 500 |
| | 0,10 µF | 11,0 × 17,5 × 18,0 | B32612-A0104-+*** | 640 | 700 | 500 |
| *** Code number for packing<br>+ Code letter for capacitance tolerance | | | | 289 | 189 | see table below |

Capacitance tolerance: ±10 % ≙ K, ±5 % ≙ J

Customized capacitance ratings upon request.

*** Code number for untaped versions (for Ammo pack and reel see table above):

| Untaped versions (bulk) | Reduced, standard or enlarged lead spacings | | | | |
|---|---|---|---|---|---|
| | 7,5 mm | 10 mm | 12,5 mm | 15,0 mm | 17,5 mm |
| Lead length (6 – 1) mm | 030 | 040 | 050 | 010 | 060 |
| Lead length min. 20 mm | | | | 011 | |
| Double crimped version, lead length (6 – 1) mm | | | | 020 | |

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

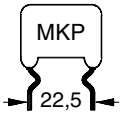
| $V_R$ ($V_{rms}$ $f \leq 1$ kHz) | $C_R$ | Maximum dimensions $b \times h \times l$ (mm) | Ordering code | Packing units (pcs) Ammo pack | Reel | Untaped (bulk) |
|---|---|---|---|---|---|---|
| 1600 Vdc (500 Vac) | 4,7 nF | 6,5 × 12,0 × 18,0 | B32612-A1472-+*** | 960 | 1100 | 1000 |
| | 6,8 nF | 8,0 × 13,0 × 18,0 | B32612-A1682-+*** | 830 | 900 | 500 |
| | 10 nF | 9,0 × 14,5 × 18,0 | B32612-A1103-+*** | 680 | 700 | 500 |
| | 15 nF | 10,0 × 17,5 × 18,0 | B32612-A1153-+*** | 640 | 700 | 500 |
| 1600 Vdc (700 Vac) | 3,3 nF | 6,5 × 11,5 × 18,0 | B32612-J1332-+*** | 960 | 1100 | 1000 |
| | 4,7 nF | 7,5 × 12,5 × 18,0 | B32612-J1472-+*** | 830 | 900 | 1000 |
| | 6,8 nF | 8,5 × 14,5 × 18,0 | B32612-J1682-+*** | 680 | 700 | 500 |
| | 10 nF | 9,5 × 17,0 × 18,0 | B32612-J1103-+*** | 640 | 700 | 250 |
| 2000 Vdc (700 Vac) | 1,0 nF | 7,0 × 10,5 × 18,0 | B32612-A2102-+*** | 1170 | 1300 | 1000 |
| | 1,5 nF | 7,5 × 11,5 × 18,0 | B32612-A2152-+*** | 960 | 1100 | 1000 |
| | 2,2 nF | 8,0 × 14,5 × 18,0 | B32612-A2222-+*** | 830 | 900 | 1000 |
| | 3,3 nF | 8,5 × 15,0 × 18,0 | B32612-A2332-+*** | 680 | 700 | 500 |
| | 4,7 nF | 9,5 × 18,0 × 18,0 | B32612-A2472-+*** | 640 | 700 | 500 |
| *** Code number for packing<br>+ Code letter for capacitance tolerance | | | | 289 | 189 | see table below |

Capacitance tolerance: ±10 % ≙ K, ±5 % ≙ J

Customized capacitance ratings upon request.

*** Code number for untaped versions (for Ammo pack and reel see table above):

| Untaped versions (bulk) | Reduced, standard or enlarged lead spacings | | | | |
|---|---|---|---|---|---|
| | 7,5 mm | 10 mm | 12,5 mm | 15,0 mm | 17,5 mm |
| Lead length (6 – 1) mm | 030 | 040 | 050 | 010 | 060 |
| Lead length min. 20 mm | | | | 011 | |
| Double crimped version, lead length (6 – 1) mm | | | | 020 | |





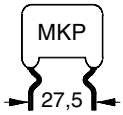

**Ordering codes and packing units, lead spacing 22,5 mm**

| $V_R$ ($V_{rms}$ $f \leq 1$ kHz) | $C_R$ | Maximum dimensions $b \times h \times l$ (mm) | Ordering code | Packing units (pcs) Ammo pack | Reel | Untaped |
|---|---|---|---|---|---|---|
| 250 Vdc (160 Vac) | 0,22 µF | 7,0 × 14,5 × 26,5 | B32613-A3224-+*** | 680 | 700 | 500 |
| | 0,33 µF | 7,0 × 14,5 × 26,5 | B32613-A3334-+*** | 680 | 700 | 500 |
| | 0,47 µF | 8,0 × 15,5 × 26,5 | B32613-A3474-+*** | 580 | 600 | 500 |
| | 0,68 µF | 9,5 × 16,0 × 26,5 | B32613-A3684-+*** | 480 | 500 | 500 |
| | 1,0 µF | 11,0 × 19,0 × 26,5 | B32613-A3105-+*** | 390 | 400 | 250 |
| 400 Vdc (200 Vac) | 0,15 µF | 7,0 × 13,5 × 26,5 | B32613-A4154-+*** | 680 | 700 | 500 |
| | 0,22 µF | 7,0 × 14,0 × 26,5 | B32613-A4224-+*** | 680 | 700 | 500 |
| | 0,33 µF | 8,0 × 16,0 × 26,5 | B32613-A4334-+*** | 580 | 600 | 500 |
| | 0,47 µF | 9,5 × 16,0 × 26,5 | B32613-A4474-+*** | 480 | 500 | 250 |
| | 0,68 µF | 11,5 × 17,5 × 26,5 | B32613-A4684-+*** | 390 | 400 | 250 |
| 630 Vdc (250 Vac) | 0,10 µF | 7,0 × 12,5 × 26,5 | B32613-A6104-+*** | 680 | 700 | 250 |
| | 0,15 µF | 7,5 × 14,0 × 26,5 | B32613-A6154-+*** | 680 | 700 | 250 |
| | 0,22 µF | 9,0 × 15,5 × 26,5 | B32613-A6224-+*** | 480 | 500 | 250 |
| | 0,33 µF | 10,0 × 18,0 × 26,5 | B32613-A6334-+*** | 390 | 400 | 250 |
| | 0,47 µF | 11,0 × 20,0 × 26,5 | B32613-A6474-+*** | 370 | 350 | 250 |
| 1000 Vdc (250 Vac) | 33 nF | 8,5 × 14,5 × 26,5 | B32613-A0333-+*** | 680 | 700 | 500 |
| | 47 nF | 10,0 × 15,5 × 26,5 | B32613-A0473-+*** | 680 | 700 | 250 |
| | 68 nF | 11,0 × 17,5 × 26,5 | B32613-A0683-+*** | 680 | 700 | 250 |
| | 0,10 µF | 10,0 × 16,5 × 26,5 | B32613-A0104-+*** | 480 | 500 | 250 |
| | 0,15 µF | 12,0 × 18,0 × 26,5 | B32613-A0154-+*** | 390 | 400 | 250 |
| 1600 Vdc (500 Vac) | 10 nF | 7,0 × 13,5 × 26,5 | B32613-A1103-+*** | 580 | 600 | 500 |
| | 15 nF | 8,0 × 14,5 × 26,5 | B32613-A1153-+*** | 580 | 600 | 500 |
| | 22 nF | 9,0 × 17,0 × 26,5 | B32613-A1223-+*** | 480 | 500 | 250 |
| | 33 nF | 10,5 × 18,5 × 26,5 | B32613-A1333-+*** | 390 | 400 | 250 |
| 2000 Vdc (1000 Vac) | 3,3 nF | 8,0 × 14,5 × 26,5 | B32613-A8332-+*** | 680 | 700 | 500 |
| | 4,7 nF | 8,5 × 16,5 × 26,5 | B32613-A8472-+*** | 680 | 500 | 250 |
| | 6,8 nF | 10,0 × 18,5 × 26,5 | B32613-A8682-+*** | 480 | 400 | 250 |
| | 10 nF | 11,5 × 21,5 × 26,5 | B32613-A8103-+*** | 390 | 400 | 250 |
| *** Code number for packing<br>+ Code letter for capacitance tolerance | | | | 289 | 189 | see table below |

Capacitance tolerance: ±10 % ≙ K, ±5 % ≙ J. Customized capacitance ratings upon request.

*** Code number for untaped versions (for Ammo pack and reel see table above):

| Untaped versions (bulk) | Reduced, standard or enlarged lead spacings | | | |
|---|---|---|---|---|
| | 17,5 mm | 20 mm | 22,5 mm | 25 mm |
| Lead length (6 – 1) mm | 060 | 070 | 010 | 080 |
| Lead length min. 20 mm | | | 011 | |
| Double crimped version, lead length (6 – 1) mm | | | 020 | |




**Ordering codes and packaging units, lead spacing 27,5 mm**

| $V_R$ ($V_{rms}$ $f \leq 1$ kHz) | $C_R$ | Maximum dimensions $b \times h \times l$ (mm) | Ordering code | Packing units Untaped (bulk) pcs |
|---|---|---|---|---|
| 250 Vdc (160 Vac) | 0,47 µF | 7,0 × 15,0 × 31,5 | B32614-A3474-+*** | 500 |
| | 0,68 µF | 8,0 × 16,5 × 31,5 | B32614-A3684-+*** | 500 |
| | 1,0 µF | 9,5 × 17,5 × 31,5 | B32614-A3105-+*** | 200 |
| | 1,5 µF | 11,5 × 19,5 × 31,5 | B32614-A3155-+*** | 200 |
| | 2,2 µF | 14,0 × 22,0 × 31,5 | B32614-A3225-+*** | 200 |
| 400 Vdc (200 Vac) | 0,47 µF | 9,5 × 15,0 × 31,5 | B32614-A4474-+*** | 200 |
| | 0,68 µF | 10,0 × 17,5 × 31,5 | B32614-A4684-+*** | 200 |
| | 1,0 µF | 11,5 × 19,5 × 31,5 | B32614-A4105-+*** | 200 |
| | 1,5 µF | 14,0 × 22,0 × 31,5 | B32614-A4155-+*** | 200 |
| | 2,2 µF | 16,5 × 24,5 × 31,5 | B32614-A4225-+*** | 150 |
| 630 Vdc (250 Vac) | 0,47 µF | 10,5 × 18,5 × 31,5 | B32614-A6474-+*** | 200 |
| | 0,68 µF | 12,0 × 21,5 × 31,5 | B32614-A6684-+*** | 200 |
| | 1,0 µF | 14,0 × 24,0 × 31,5 | B32614-A6105-+*** | 200 |
| 1000 Vdc (250 Vac) | 0,10 µF | 11,5 × 17,5 × 31,5 | B32614-A0104-+*** | 500 |
| | 0,15 µF | 13,0 × 21,0 × 31,5 | B32614-A0154-+*** | 200 |
| | 0,22 µF | 14,5 × 24,5 × 31,5 | B32614-A0224-+*** | 200 |
| 1600 Vdc (500 Vac) | 22 nF | 9,0 × 14,5 × 31,5 | B32614-A1223-+*** | 500 |
| | 33 nF | 10,5 × 16,0 × 31,5 | B32614-A1333-+*** | 500 |
| | 47 nF | 11,0 × 19,5 × 31,5 | B32614-A1473-+*** | 200 |
| | 68 nF | 13,0 × 21,5 × 31,5 | B32614-A1683-+*** | 200 |

Capacitance tolerance: ±10 % ≙ K, ±5 % ≙ J

Customized capacitance ratings upon request.

\+ Code letter for capacitance tolerance

*** Code number for untaped versions:

| Untaped versions (bulk) | Standard or reduced lead spacings | |
|---|---|---|
| | 25 mm | 27,5 mm |
| Lead length (6 – 1) mm | 090 | 010 |
| Lead length min. 20 mm | | 011 |
| Double crimped version, lead length (6 – 1) mm | | 020 |

## Technical data

| | |
|---|---|
| Climatic category<br>in accordance with IEC 60068-1 | 55/100/56 |
| Lower category temperature $T_{min}$<br>Upper category temperature $T_{max}$ | – 55 °C<br>+ 100 °C |
| Damp heat test | 56 days/40 °C/93 % relative humidity |
| Limit values after damp heat test | Capacitance change $\lvert\Delta C/C\rvert$ ≤ 3 %<br>Dissipation factor change $\Delta \tan \delta$ ≤ 0,5 · $10^{-3}$ (at 1 kHz)<br>≤ 1,0 · $10^{-3}$ (at 10 kHz)<br>Insulation resistance $R_{is}$ ≥ 50 % of minimum<br>or time constant $\tau = C_R \cdot R_{is}$ as-delivered values |
| Reliability: | |
| Reference conditions<br>Failure rate | 0,5 · $V_R$; 40 °C<br>1 · $10^{-9}$/h = 1 fit<br>For a conversion table for other operating conditions and temperatures, refer to chapter “Quality assurance”, page 327. |
| Service life | 200 000 h |
| Failure criteria:<br>Total failure<br>Failure due to variation of parameters | Short circuit or open circuit<br>Capacitance change $\lvert\Delta C/C\rvert$ > 10 %<br>Dissipation factor tan δ > 4 · upper limit values<br>Insulation resistance $R_{is}$ < 1500 MΩ ($C_R \le 0{,}33$ µF)<br>or time constant $\tau = C_R \cdot R_{is}$ < 500 s ($C_R > 0{,}33$ µF) |
| DC test voltage | 1,6 · $V_R$, 2 s |
| Category voltage $V_C$<br>Operation with Vdc voltage or ac voltage $V_{rms}$ up to 1 kHz | $T \le$ 85 °C: $V_C = 1{,}0 \cdot V_R$ or $1{,}0 \cdot V_{rms}$<br>$T$ = 100 °C: $V_C = 0{,}7 \cdot V_R$ or $0{,}7 \cdot V_{rms}$ |

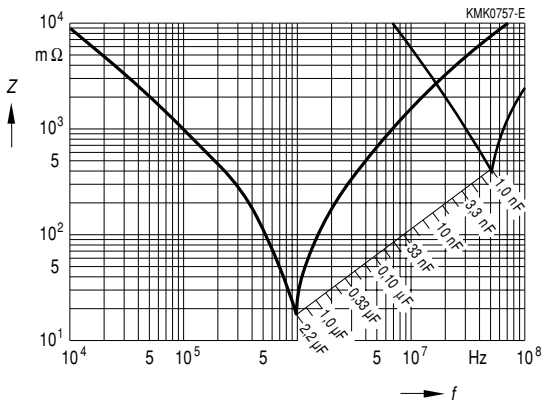
Dissipation factor tan δ (in $10^{-3}$) at 20 °C (upper limit values)

| | $C_R \le 0{,}1$ µF | 0,1 µF < $C_R \le$ 1 µF | $C_R >$ 1 µF |
|---|---|---|---|
| at 1 kHz | – | 0,5 | 0,5 |
| 10 kHz | – | 0,8 | 1,5 |
| 100 kHz | 5,0 | – | – |

Insulation resistance $R_{is}$ or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity ≤ 65 % (minimum as-delivered values)

| $C_R \le 0{,}33$ µF | $C_R > 0{,}33$ µF |
|---|---|
| 100 GΩ | 30 000 s |

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/µs (for $V_{pp} = V_R$) | | |
|---|---|---|---|
| | Lead spacing | | |
| | 15 mm | 22,5 mm | 27,5 mm |
| 250 Vdc | 140 | 80 | 50 |
| 400 Vdc | 200 | 100 | 70 |
| 630 Vdc | 270 | 140 | 100 |
| 1000 Vdc | 400 | 350 | 225 |
| 1600 Vdc/500 Vac | 1500 | 1000 | 700 |
| 1600 Vdc/700 Vac | 1900 | — | — |
| 2000 Vdc/700 Vac | 2200 | — | — |
| 2000 Vdc/1000 Vac | — | 2000 | — |

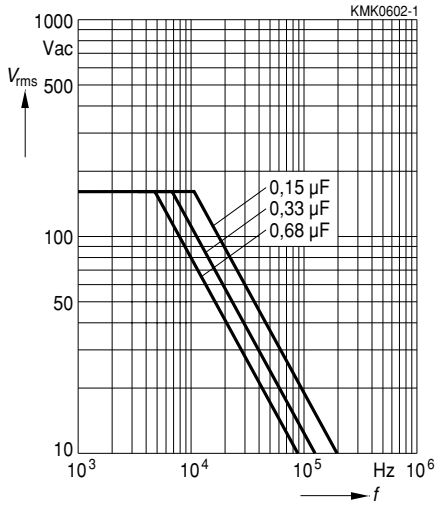
For $V_{pp} < V_R$ , the permissible voltage rise rate value $V_{pp}/\tau$ may be multiplied by the factor $V_R/V_{pp}$. Also refer to the calculation example in chapter “General technical information”, page 302.

| $V_R$ | Pulse characteristic $k_0$ in $V^2$/µs (for $V_{pp} \leq V_R$) | | |
|---|---|---|---|
| | Lead spacing | | |
| | 15 mm | 22,5 mm | 27,5 mm |
| 250 Vdc | 70 000 | 40 000 | 25 000 |
| 400 Vdc | 160 000 | 80 000 | 55 000 |
| 630 Vdc | 340 000 | 170 000 | 120 000 |
| 1000 Vdc | 800 000 | 675 000 | 450 000 |
| 1600 Vdc/500 Vac | 4 800 000 | 3 200 000 | 2 200 000 |
| 1600 Vdc/700 Vac | 6 100 000 | — | — |
| 2000 Vdc/700 Vac | 8 800 000 | — | — |
| 2000 Vdc/1000 Vac | — | 10 000 000 | — |

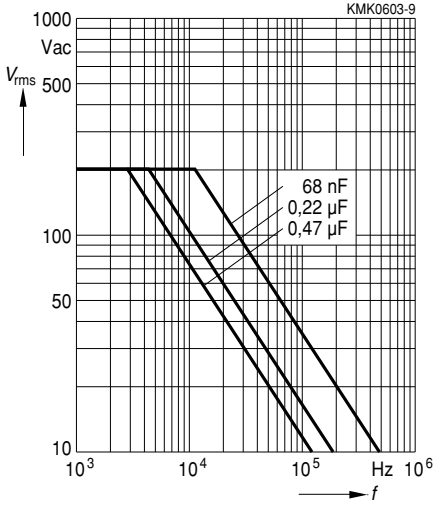
**Permissible ac voltage $V_{rms}$ versus frequency *f***

**Lead spacing 15 mm**

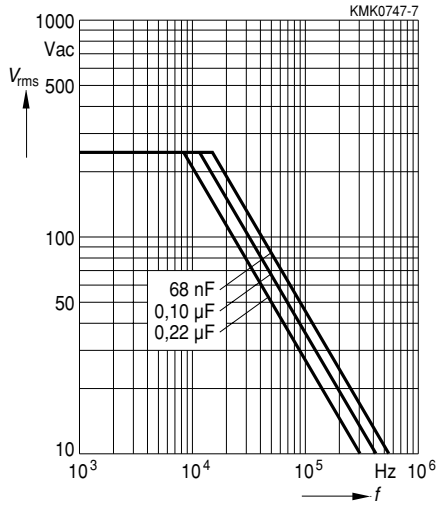
250 Vdc/ 160 Vac



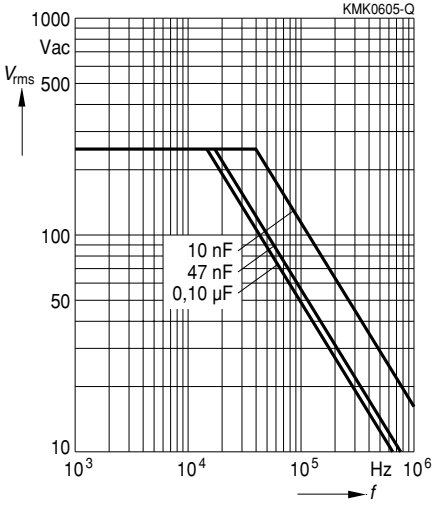

400 Vdc/ 200 Vac




630 Vdc/ 250 Vac



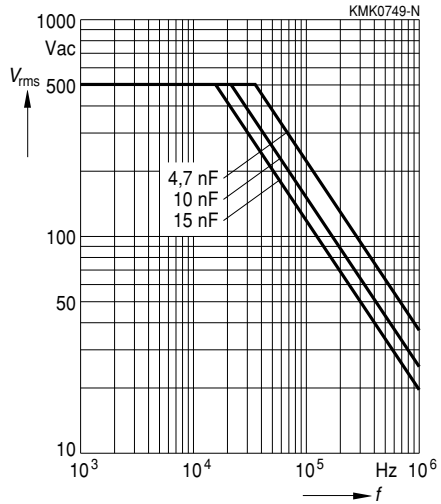

1000 Vdc/ 250 Vac



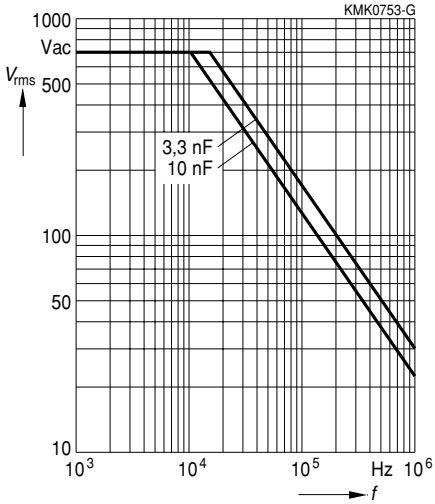
**Permissible ac voltage $V_{rms}$ versus frequency $f$**

**Lead spacing 15 mm**

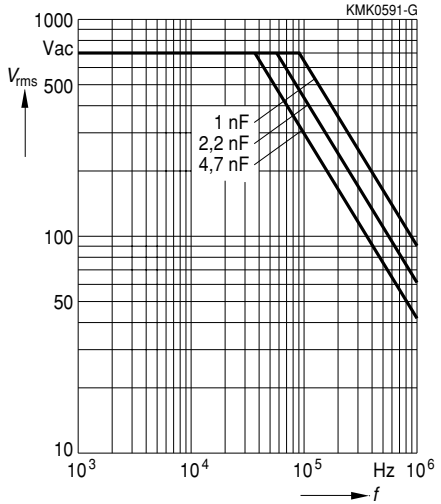
1600 Vdc/ 500 Vac




1600 Vdc/ 700 Vac



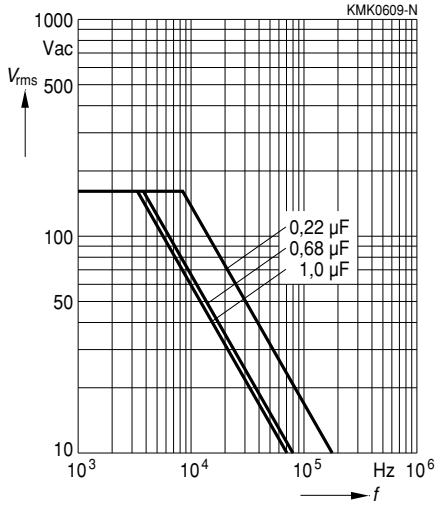

2000 Vdc/700 Vac



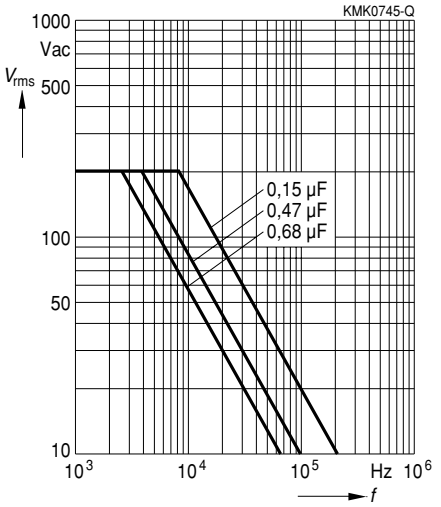
**Permissible ac voltage $V_{rms}$ versus frequency $f$**

**Lead spacing 22,5 mm**

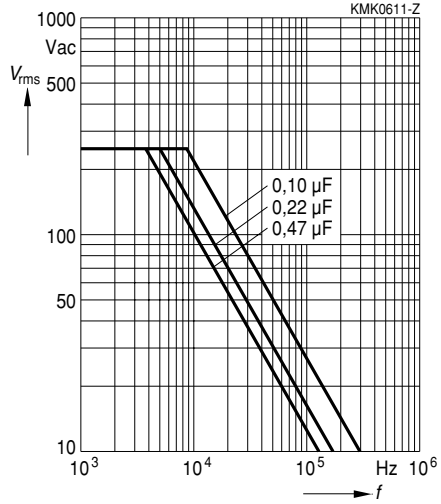
250 Vdc/ 160 Vac



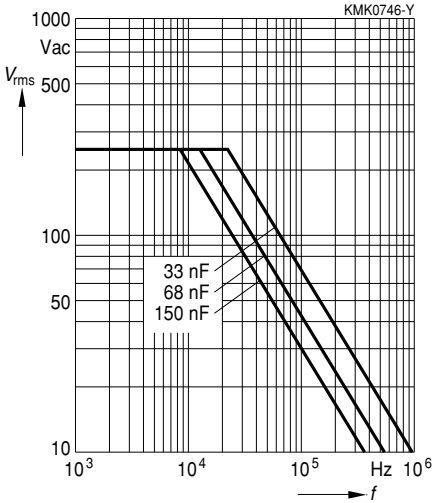

400 Vdc/ 200 Vac

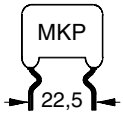



630 Vdc/ 250 Vac




1000 Vdc/ 250 Vac

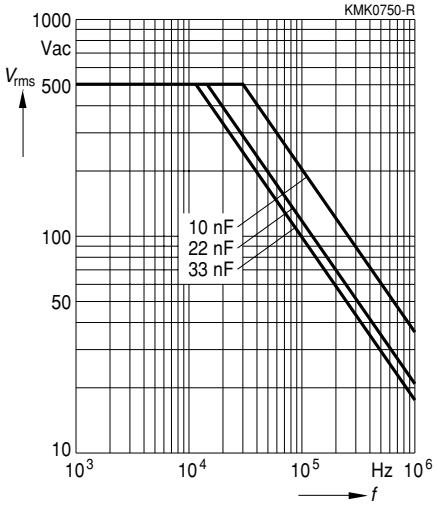




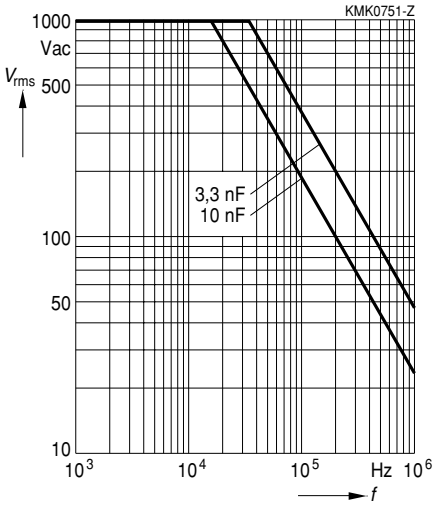

**Permissible ac voltage $V_{rms}$ versus frequency $f$**

**Lead spacing 22,5 mm**

1600 Vdc/ 500 Vac



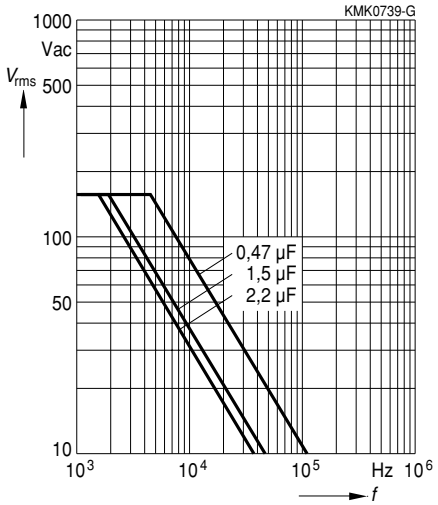

2000 Vdc/ 1000 Vac



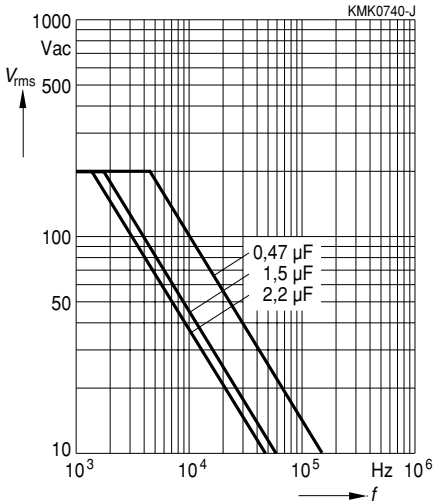
**Permissible ac voltage $V_{rms}$ versus frequency $f$**

**Lead spacing 27,5 mm**

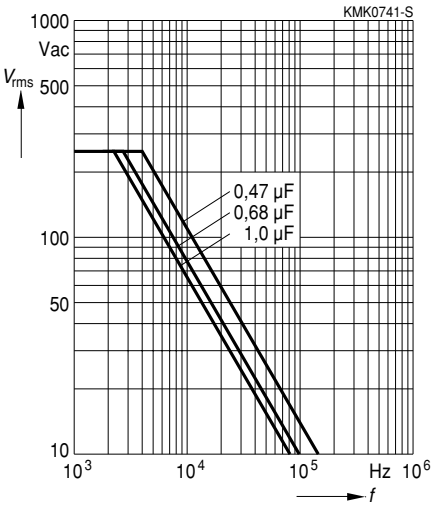
250 Vdc/ 160 Vac



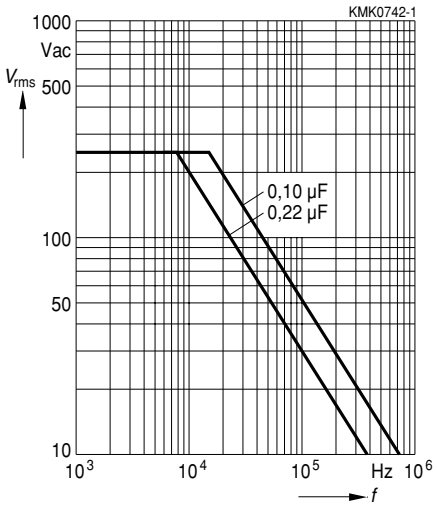

400 Vdc/ 200 Vac

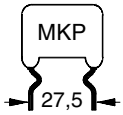



630 Vdc/ 250 Vac




1000 Vdc/ 250 Vac

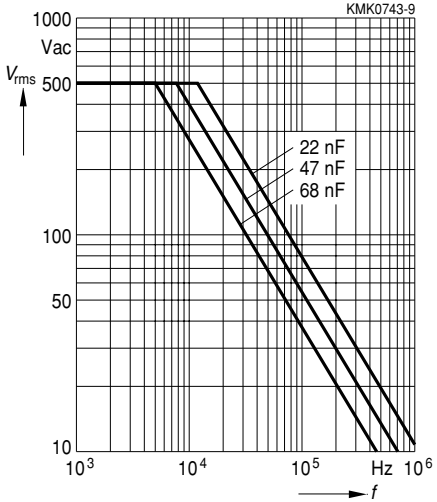





**Permissible ac voltage $V_{rms}$ versus frequency *f***

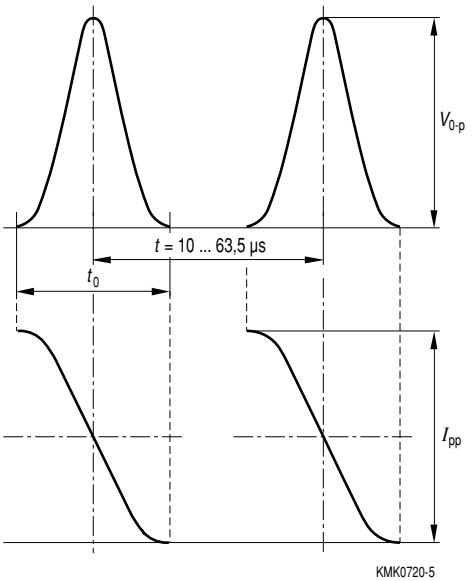
**Lead spacing 27,5mm**

1600 Vdc/ 500 Vac



**Flyback application**
**Permissible voltage and current / waveform**

Permissible current $I_{pp}$ versus frequency for a duty cycle of 20 % ($t_0/t$= 0,2):

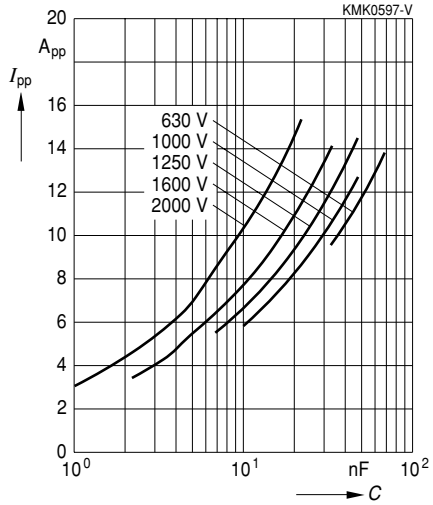



Approximation formular for duty cycle higher than 20 %:

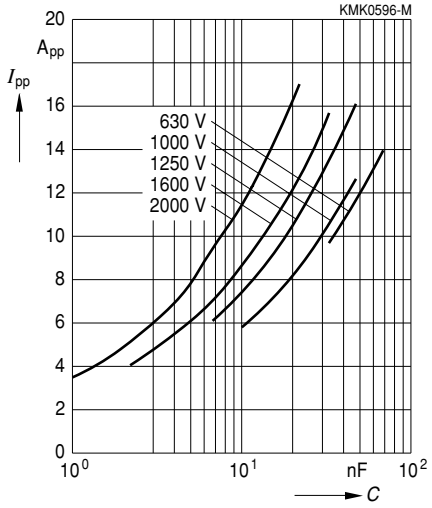
$$I'_{pp} = I_{pp}\sqrt{\frac{t_0^3}{t'^3_0}}$$

**Flyback application**
**Permissible current $I_{pp}$ versus rated capacitance $C_R$**

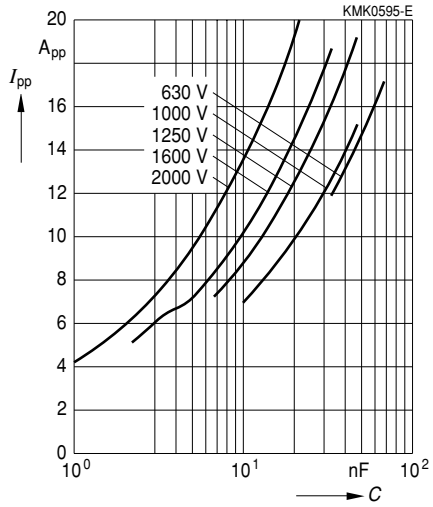
Frequency = 15,75 kHz



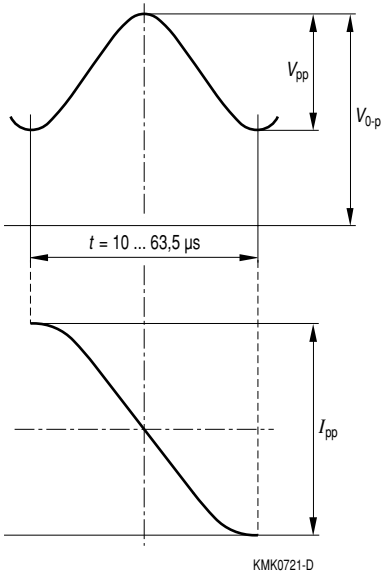

Frequency = 31,5 kHz




Frequency = 95 kHz

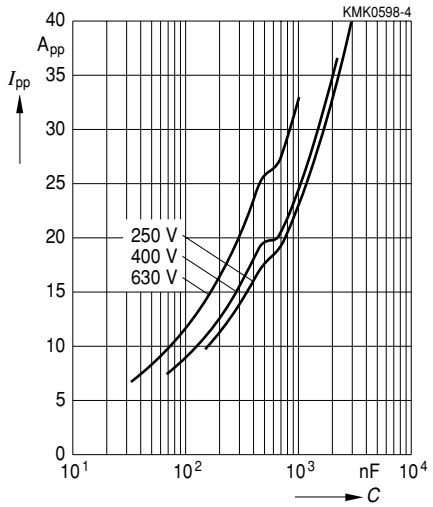


**S-correction application**
**Permissible voltage and current / waveform**

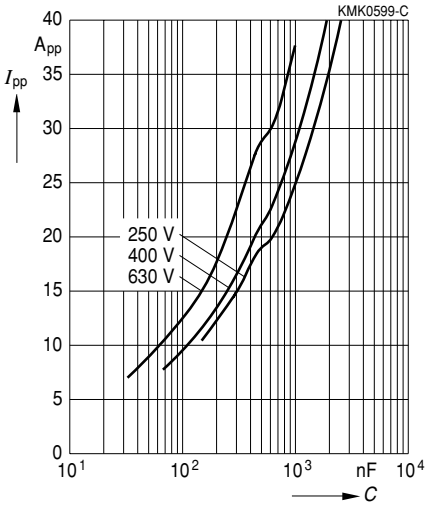


**S-correction application**
**Permissible current $I_{pp}$ versus rated capacitance $C_R$**

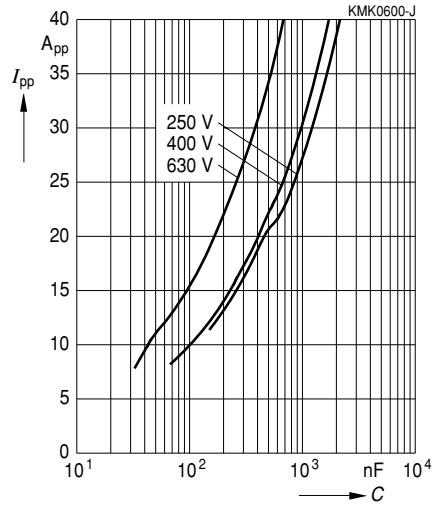
Frequency = 15,75 kHz




Frequency = 31,75 kHz




Frequency = 95 kHz



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