

Metallized Polypropylene Film Capacitors (MKP)
in Plastic Case

400 4140

B 32 651 ... B 32 656

Wound MKP capacitors
Very small dimensions

Construction

- Dielectric: polypropylene
- Wound capacitor technology with internal series connection for $V_R \geq 1250$ Vdc
- Plastic case (UL 94 V-0)
- Epoxy resin sealing

Features

- High pulse strength
- High contact reliability
- Very small dimensions

Typical applications

- TV S-correction
- TV flyback
- Electronic ballast circuits

Terminals

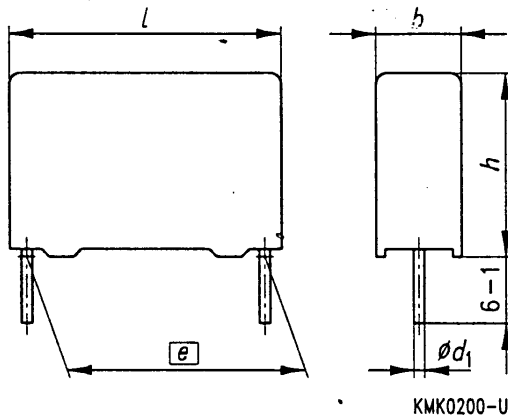
- Parallel wire leads, tinned
- Also available with $(3,2 \pm 0,3)$ mm lead length

Marking

Manufacturer's logo,
lot number for lead spacing $\leq 27,5$ mm
style (MKP),
rated capacitance (coded),
capacitance tolerance (code letter),
rated dc voltage
(ac voltage for 1600 Vdc/700 Vac and
2000 Vdc/1000 Vac)
date of manufacture (coded)

Delivery mode

Bulk
Taped (Ammo pack or reel)
For notes on taping refer to page 279.



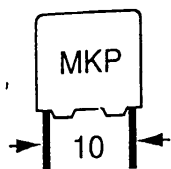
Dimensions in mm

Lead spacing $e \pm 0,4$	Diameter d_1	Type
10,0	0,6	B 32 651
15,0	0,8	B 32 652
22,5	0,8	B 32 653
27,5	0,8	B 32 654
37,5	1,0	B 32 656

[illegible]

Lead spacing	27,5 mm	37,5 mm
Type	B 32 654	B 32 656
Page	151	152

[illegible]



B 32 651

Ordering codes and packing units, lead spacing 10 mm

V_R (V_{rms} $f \leq 1$ kHz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
1250 Vdc ²⁾ (500 Vac)	2,2 nF	4,0 × 9,0 × 13,0	B32651-A7222-+***	1000	1700	1000
	3,3 nF	5,0 × 11,0 × 13,0	B32651-A7332-+***	830	1300	1000
	4,7 nF	5,0 × 11,0 × 13,0	B32651-A7472-+***	830	1300	1000
	6,8 nF	6,0 × 12,0 × 13,0	B32651-A7682-+***	680	1100	1000

Capacitance tolerance: $\pm 10\% \hat{=} K, \pm 5\% \hat{=} J, (\pm 3,5\% \text{ upon request})$

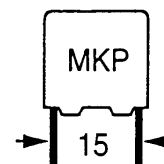
1) Replace the + by the code letter for the required capacitance tolerance.

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.

For capacitors with 3,2 mm lead length, append code number "3" to the tolerance code, e.g: B32651-A7222-K3

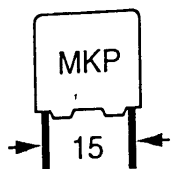
2) For pulse loads (pulse width $\leq 1000 \mu s$), a peak voltage of 1400 V_p can be permitted.



Ordering codes and packing units, lead spacing 15 mm

V_R (V_{rms} $f \leq 1 \text{ kHz}$)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
250 Vdc (160 Vac)	0,15 μF	$5,0 \times 10,5 \times 18,0$	B32652-A3154-+***	1170	1300	1000
	0,22 μF	$6,0 \times 11,0 \times 18,0$	B32652-A3224-+***	960	1100	1000
	0,33 μF	$7,0 \times 12,5 \times 18,0$	B32652-A3334-+***	830	900	1000
	0,47 μF	$8,5 \times 14,5 \times 18,0$	B32652-A3474-+***	680	700	500
	0,68 μF	$9,0 \times 17,5 \times 18,0$	B32652-A3684-+***	640	700	500
400 Vdc (200 Vac)	68 nF	$5,0 \times 10,5 \times 18,0$	B32652-A4683-+***	1170	1300	1000
	0,10 μF	$5,0 \times 10,5 \times 18,0$	B32652-A4104-+***	1170	1300	1000
	0,15 μF	$6,0 \times 11,0 \times 18,0$	B32652-A4154-+***	960	1100	1000
	0,22 μF	$7,0 \times 12,5 \times 18,0$	B32652-A4224-+***	830	900	1000
	0,33 μF	$8,5 \times 14,5 \times 18,0$	B32652-A4334-+***	680	700	500
	0,47 μF	$9,0 \times 17,5 \times 18,0$	B32652-A4474-+***	640	700	500
630 Vdc (250 Vac)	33 nF	$5,0 \times 10,5 \times 18,0$	B32652-A6333-+***	1170	1300	1000
	47 nF	$5,0 \times 10,5 \times 18,0$	B32652-A6473-+***	1170	1300	1000
	68 nF	$6,0 \times 11,0 \times 18,0$	B32652-A6683-+***	960	1100	1000
	0,10 μF	$7,0 \times 12,5 \times 18,0$	B32652-A6104-+***	830	900	1000
	0,15 μF	$8,5 \times 14,5 \times 18,0$	B32652-A6154-+***	680	700	500
	0,22 μF	$9,0 \times 17,5 \times 18,0$	B32652-A6224-+***	640	700	500
1000 Vdc (250 Vac)	10 nF	$5,0 \times 10,5 \times 18,0$	B32652-A103-+***	1170	1300	1000
	15 nF	$5,0 \times 10,5 \times 18,0$	B32652-A153-+***	1170	1300	1000
	22 nF	$5,0 \times 10,5 \times 18,0$	B32652-A223-+***	1170	1300	1000
	33 nF	$6,0 \times 11,0 \times 18,0$	B32652-A333-+***	960	1100	1000
	47 nF	$7,0 \times 12,5 \times 18,0$	B32652-A473-+***	830	900	1000
	68 nF	$8,5 \times 14,5 \times 18,0$	B32652-A683-+***	680	700	500
	0,10 μF	$9,0 \times 17,5 \times 18,0$	B32652-A104-+***	640	700	500
1250 Vdc (500 Vac)	6,8 nF	$5,0 \times 10,5 \times 18,0$	B32652-A7682-+***	1170	1300	1000
	10 nF	$6,0 \times 11,0 \times 18,0$	B32652-A7103-+***	960	1100	1000
	15 nF	$7,0 \times 12,5 \times 18,0$	B32652-A7153-+***	830	900	1000
	22 nF	$8,5 \times 14,5 \times 18,0$	B32652-A7223-+***	680	700	500
	33 nF	$9,0 \times 17,5 \times 18,0$	B32652-A7333-+***	640	700	500
1600 Vdc (500 Vac)	3,3 nF	$5,0 \times 10,5 \times 18,0$	B32652-A1332-+***	1170	1300	1000
	4,7 nF	$6,0 \times 11,0 \times 18,0$	B32652-A1472-+***	960	1100	1000
	6,8 nF	$7,0 \times 12,5 \times 18,0$	B32652-A1682-+***	830	900	1000
	10 nF	$8,5 \times 14,5 \times 18,0$	B32652-A1103-+***	680	700	500
	15 nF	$9,0 \times 17,5 \times 18,0$	B32652-A1153-+***	640	700	500

1) For instruction on how to determine the ordering code, see next page.



B 32 652

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 ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
1600 Vdc ²⁾ (700Vac)	2,2 nF	5,0 × 10,5 × 18,0	B32652-J1222-+***	1170	1300	1000
	3,3 nF	6,0 × 11,0 × 18,0	B32652-J1332-+***	960	1100	1000
	4,7 nF	7,0 × 12,5 × 18,0	B32652-J1472-+***	830	900	1000
	6,8 nF	8,5 × 14,5 × 18,0	B32652-J1682-+***	680	700	500
	10 nF	9,0 × 17,5 × 18,0	B32652-J1103-+***	640	700	500
2000 Vdc (700 Vac)	1,0 nF	5,0 × 10,5 × 18,0	B32652-A2102-+***	1170	1300	1000
	1,5 nF	6,0 × 11,0 × 18,0	B32652-A2152-+***	960	1100	1000
	2,2 nF	7,0 × 12,5 × 18,0	B32652-A2222-+***	830	900	1000
	3,3 nF	8,5 × 14,5 × 18,0	B32652-A2332-+***	680	700	500
	4,7 nF	9,0 × 17,5 × 18,0	B32652-A2472-+***	640	700	500

Capacitance tolerance: $\pm 10\% \hat{=} K, \pm 5\% \hat{=} J, (\pm 3,5\% \text{ upon request})$

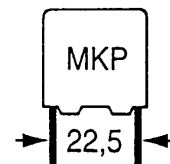
1) Replace the + by the code letter for the required capacitance tolerance.

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.

For capacitors with 3,2 mm lead length, append code number "3" to the tolerance code, e.g: B32652-J1222-K3

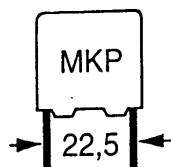
2) Additional capacitance ratings upon request



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 ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
250 Vdc (160 Vac)	0,22 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A3224-+***	680	700	720
	0,33 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A3334-+***	680	700	720
	0,47 μ F	7,0 $\times$ 16,0 $\times$ 26,5	B32653-A3474-+***	580	600	630
	0,68 μ F	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A3684-+***	480	500	510
	1,0 μ F	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A3105-+***	390	400	610
400 Vdc (200 Vac)	0,15 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A4154-+***	680	700	720
	0,22 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A4224-+***	680	700	720
	0,33 μ F	7,0 $\times$ 16,0 $\times$ 26,5	B32653-A4334-+***	580	600	630
	0,47 μ F	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A4474-+***	480	500	510
	0,68 μ F	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A4684-+***	390	400	610
	1,0 μ F	11,0 $\times$ 20,5 $\times$ 26,5	B32653-A4105-+***	370	350	510
630 Vdc (250 Vac)	0,10 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A6104-+***	680	700	720
	0,15 μ F	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A6154-+***	680	700	720
	0,22 μ F	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A6224-+***	480	500	510
	0,33 μ F	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A6334-+***	390	400	610
	0,47 μ F	11,0 $\times$ 20,5 $\times$ 26,5	B32653-A6474-+***	370	350	510
1000 Vdc (250 Vac)	33 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A333-+***	680	700	720
	47 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A473-+***	680	700	720
	68 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A683-+***	680	700	720
	0,10 μ F	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A104-+***	480	500	510
	0,15 μ F	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A154-+***	390	400	610
	0,22 μ F	11,0 $\times$ 20,5 $\times$ 26,5	B32653-A224-+***	370	350	510
1250 Vdc (500 Vac)	22 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A7223-+***	680	700	720
	33 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A7333-+***	680	700	720
	47 nF	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A7473-+***	480	500	510
	68 nF	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A7683-+***	390	400	610
	0,10 μ F	11,0 $\times$ 20,5 $\times$ 26,5	B32653-A7104-+***	370	350	510
1600 Vdc (500 Vac)	6,8 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A1682-+***	680	700	720
	10 nF	6,0 $\times$ 15,0 $\times$ 26,5	B32653-A1103-+***	680	700	720
	15 nF	7,0 $\times$ 16,0 $\times$ 26,5	B32653-A1153-+***	580	600	630
	22 nF	8,5 $\times$ 16,5 $\times$ 26,5	B32653-A1223-+***	480	500	510
	33 nF	10,5 $\times$ 16,5 $\times$ 26,5	B32653-A1333-+***	390	400	610
	47 nF	11,0 $\times$ 20,5 $\times$ 26,5	B32653-A1473-+***	370	350	510

¹⁾ For instructions on how to determine the ordering code, see next page.



B 32 653

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 ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
2000 Vdc (700 Vac)	3,3 nF	6,0 × 15,0 × 26,5	B32653-A2332-+***	680	700	720
	4,7 nF	6,0 × 15,0 × 26,5	B32653-A2472-+***	680	700	720
	6,8 nF	8,5 × 16,5 × 26,5	B32653-A2682-+***	480	500	510
	10 nF	10,5 × 16,5 × 26,5	B32653-A2103-+***	390	400	610
	15 nF	11,0 × 20,5 × 26,5	B32653-A2153-+***	370	350	510
2000 Vdc (1000 Vac)	2,2 nF	6,0 × 15,0 × 26,5	B32653-A8222-+***	680	700	720
	3,3 nF	6,0 × 15,0 × 26,5	B32653-A8332-+***	680	700	720
	4,7 nF	8,5 × 16,5 × 26,5	B32653-A8472-+***	480	500	510
	6,8 nF	10,5 × 16,5 × 26,5	B32653-A8682-+***	390	400	610
	10 nF	10,5 × 20,5 × 26,5	B32653-A8103-+***	390	400	540

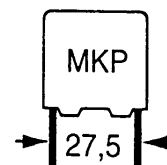
Capacitance tolerance: $\pm 10\% \hat{=} K, \pm 5\% \hat{=} J, (\pm 3,5\% \text{ upon request})$

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.

For capacitors with 3,2 mm lead length, append code number "3" to the tolerance code, e.g.: B32653-A2332-K3



Ordering codes and packing 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 ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
250 Vdc (160 Vac)	1,5 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A3155-+***	—	350	320
	2,2 μ F	12,5 $\times$ 21,5 $\times$ 31,5	B32654-A3225-+***	—	300	280
	3,3 μ F	15,0 $\times$ 24,5 $\times$ 31,5	B32654-A3335-+***	—	—	240
	4,7 μ F	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A3475-+***	—	—	200
400 Vdc (200 Vac)	1,0 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A4105-+***	—	350	320
	1,5 μ F	12,5 $\times$ 21,5 $\times$ 31,5	B32654-A4155-+***	—	300	280
	2,2 μ F	14,0 $\times$ 24,5 $\times$ 31,5	B32654-A4225-+***	—	—	260
	3,3 μ F	19,0 $\times$ 30,0 $\times$ 31,5	B32654-A4335-+***	—	—	180
630 Vdc (250 Vac)	0,68 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A6684-+***	—	350	320
	1,0 μ F	13,5 $\times$ 23,0 $\times$ 31,5	B32654-A6105-+***	—	250	260
	1,5 μ F	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A6155-+***	—	—	200
1000 Vdc (250 Vac)	0,22 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A224-+***	—	350	320
	0,33 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A334-+***	—	350	320
	0,47 μ F	14,0 $\times$ 24,5 $\times$ 31,5	B32654-A474-+***	—	—	260
	0,68 μ F	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A684-+***	—	—	200
1250 Vdc (500 Vac)	0,10 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A7104-+***	—	350	320
	0,15 μ F	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A7154-+***	—	350	320
	0,22 μ F	14,0 $\times$ 24,5 $\times$ 31,5	B32654-A7224-+***	—	—	260
	0,33 μ F	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A7334-+***	—	—	200
1600 Vdc (500 Vac)	47 nF	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A1473-+***	—	350	320
	68 nF	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A1683-+***	—	350	320
	0,10 μ F	14,0 $\times$ 24,5 $\times$ 31,5	B32654-A1104-+***	—	—	260
	0,15 μ F	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A1154-+***	—	—	200
2000 Vdc (700 Vac)	22 nF	11,0 $\times$ 21,0 $\times$ 31,5	B32654-A2223-+***	—	350	320
	33 nF	13,5 $\times$ 23,0 $\times$ 31,5	B32654-A2333-+***	—	250	260
	47 nF	18,0 $\times$ 27,5 $\times$ 31,5	B32654-A2473-+***	—	—	200
	68 nF	19,0 $\times$ 30,0 $\times$ 31,5	B32654-A2683-+***	—	—	180

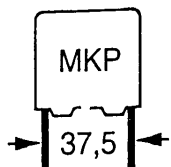
Capacitance tolerance: $\pm 10\% \hat{=}$ K, $\pm 5\% \hat{=}$ J, ($\pm 3,5\%$ upon request)

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

Replace the *** by the code number for the required packing: reel = 189

The ordering code for untaped components ends after the tolerance code letter.

For capacitors with 3,2 mm lead length, append code number "3" to the tolerance code, e.g.: B32654-A4105-K3



B 32 656

Ordering codes and packing units, lead spacing 37,5 mm

V_R (V_{rms} $f \leq 1$ kHz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
1000 Vdc (500 Vac)	0,47 μ F	14,0 $\times$ 25,0 $\times$ 41,5	B32656-A474-+	—	—	115
	0,68 μ F	16,0 $\times$ 28,5 $\times$ 41,5	B32656-A684-+	—	—	100
	1,0 μ F	20,0 $\times$ 39,5 $\times$ 41,5	B32656-A105-+	—	—	75
1250 Vdc (500 Vac)	0,33 μ F	16,0 $\times$ 28,5 $\times$ 41,5	B32656-A7334-+	—	—	100
	0,47 μ F	18,0 $\times$ 32,5 $\times$ 41,5	B32656-A7474-+	—	—	90
	0,68 μ F	20,0 $\times$ 39,5 $\times$ 41,5	B32656-A7684-+	—	—	75

Capacitance tolerance: $\pm 10\% \hat{=} K, \pm 5\% \hat{=} J, (\pm 3,5\% \text{ upon request})$

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

For capacitors with 3,2 mm wire leads, append code number "3" to the tolerance code, e.g.: B32656-A474-K3

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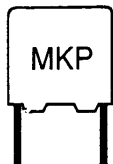
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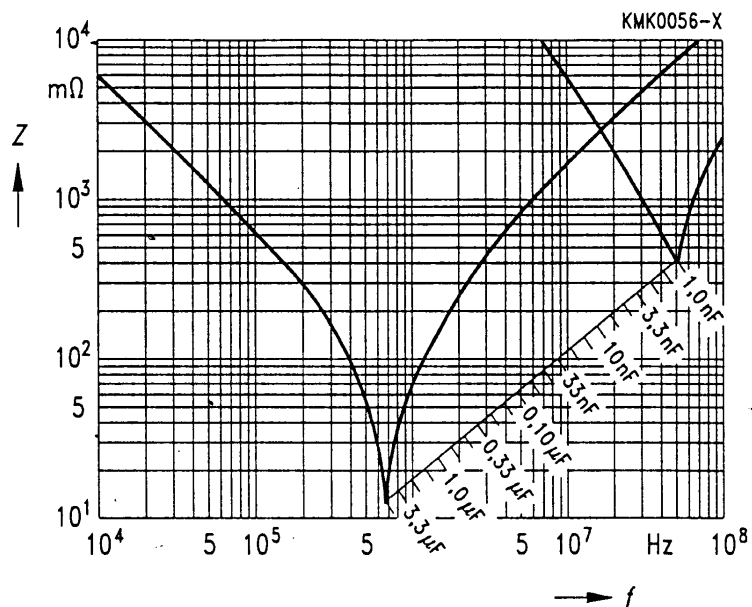
Technical data

Climatic category in accordance with IEC 68-1	55/100/56			
Lower category temperature $T_{\min}$	– 55 °C			
Upper category temperature $T_{\max}$	+ 100 °C			
Damp heat test	56 days/40 °C/93 % relative humidity			
Limit values after damp heat test	Capacitance change $ \Delta C/C $	$\leq 3 \%$		
	Dissipation factor change $\Delta \tan \delta$	$\leq 0,5 \cdot 10^{-3}$ (at 1 kHz)		
		$\leq 1,0 \cdot 10^{-3}$ (at 10 kHz)		
	Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$	$\geq 50 \%$ of minimum as-delivered values		
Reliability:				
Reference conditions	$0,5 \cdot V_R$; 40 °C			
Failure rate	$1 \cdot 10^{-9}/h = 1 \text{ fit}$			
	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 $\tan \delta$	$> 4 \cdot$ upper limit values		
	Insulation resistance R_{is}	$< 1500 \text{ M}\Omega$ ($C_R \leq 0,33 \mu\text{F}$)		
	or time constant $\tau = C_R \cdot R_{is}$	$< 500 \text{ s}$ ($C_R > 0,33 \mu\text{F}$)		
DC test voltage	$1,6 \cdot V_R$, 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 Vdc voltage or ac voltage V_{rms} up to 1 kHz	$T = 100 \text{ °C}$: $V_C = 0,7 \cdot V_R$ or $0,7 \cdot V_{\text{rms}}$			
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	–	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 $\leq 65 \%$ (minimum as-delivered values)	$C_R \leq 0,33 \mu\text{F}$		$C_R > 0,33 \mu\text{F}$	
	100 G Ω		30 000 s	



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Impedance Z
versus
frequency f
(typical values)



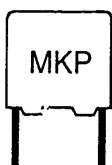
Pulse handling capability

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/ μ s (for $V_{pp} = V_R$)				
	Lead spacing				
	10 mm	15 mm	22,5 mm	27,5 mm	37,5 mm
250 Vdc	–	140	80	50	–
400 Vdc	–	200	100	70	–
630 Vdc	–	270	140	100	–
1000 Vdc	–	400	230	150	90
1250 Vdc	2000	800	500	400	140
1600 Vdc (500 Vac)	–	1500	1000	700	–
1600 Vdc (700 Vac)	–	1900	–	–	–
2000 Vdc (700 Vac)	–	2200	1400	900	–
2000 Vdc (1000 Vac)	–	–	2000	–	–
2500 Vdc	–	–	–	–	–

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 on page 250.

V_R	Pulse characteristic k_0 in V ² / μ s (for $V_{pp} \leq V_R$)				
	Lead spacing				
	10 mm	15 mm	22,5 mm	27,5 mm	37,5 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	450 000	300 000	180 000
1250 Vdc	6 400 000	2 000 000	1 250 000	1 000 000	350 000
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	5 600 000	3 600 000	–
2000 Vdc (1000 Vac)	–	–	10 000 000	–	–
2500 Vdc	–	–	–	–	–

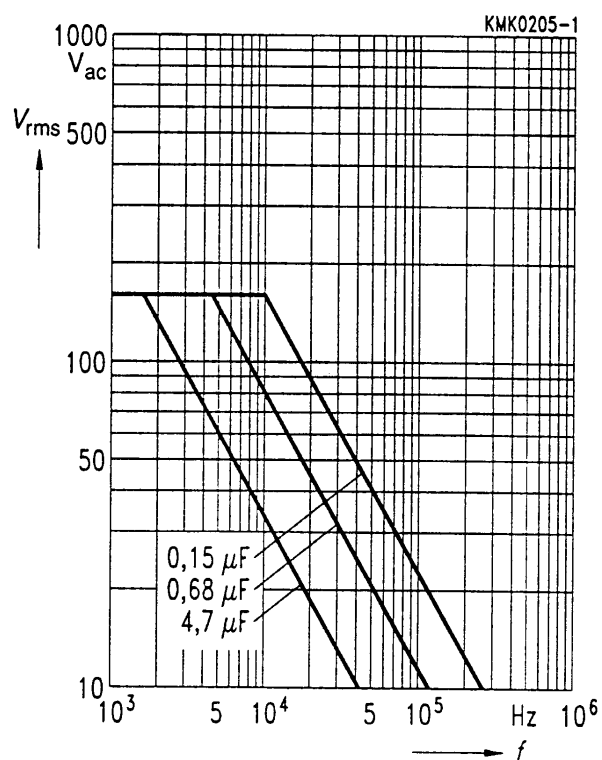


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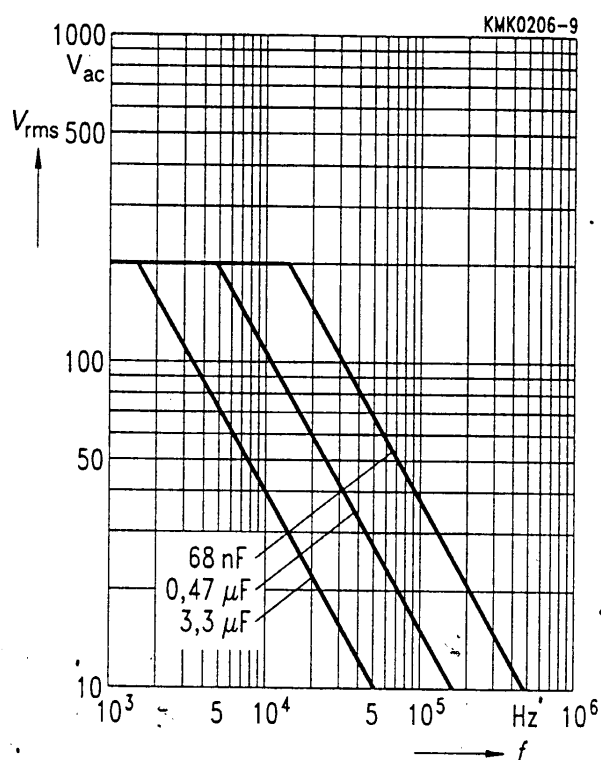
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 15 ... 37,5 mm

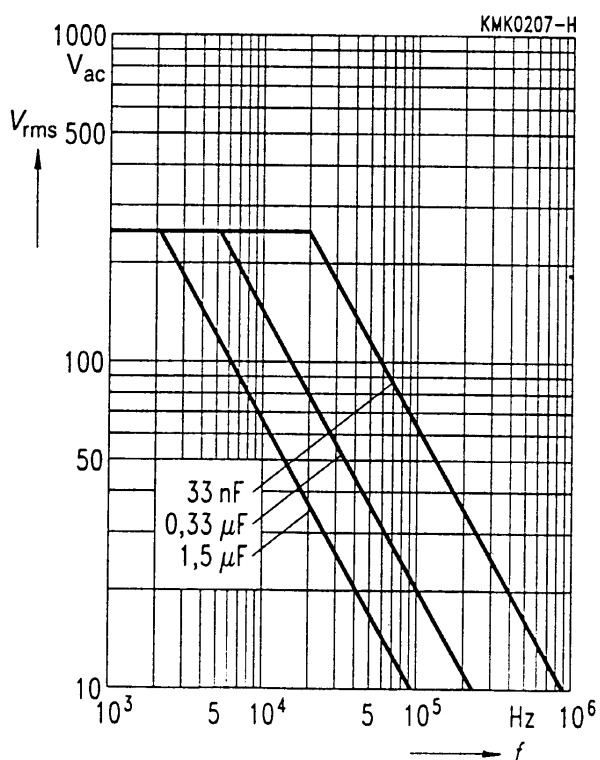
250 Vdc/ 160 Vac



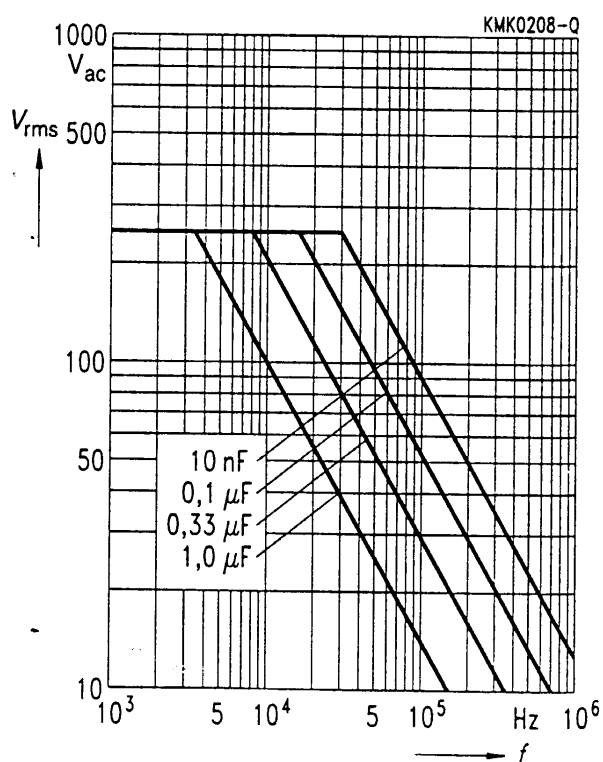
400 Vdc/ 200 Vac



630 Vdc/ 250 Vac



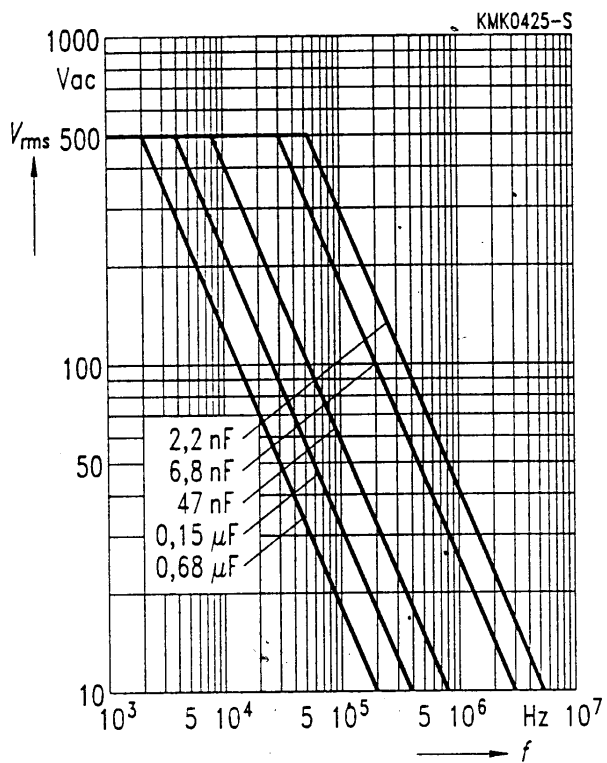
1000 Vdc/ 250 Vac



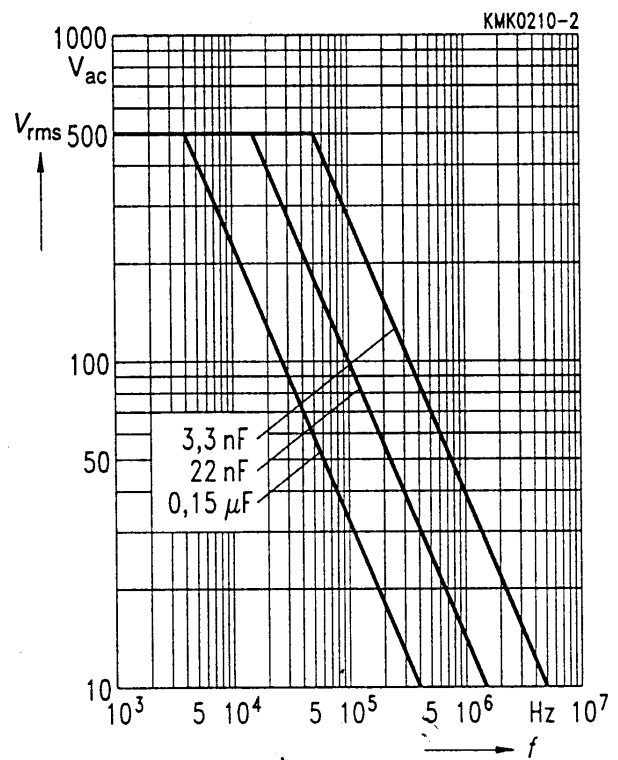
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 10 ... 37,5 mm

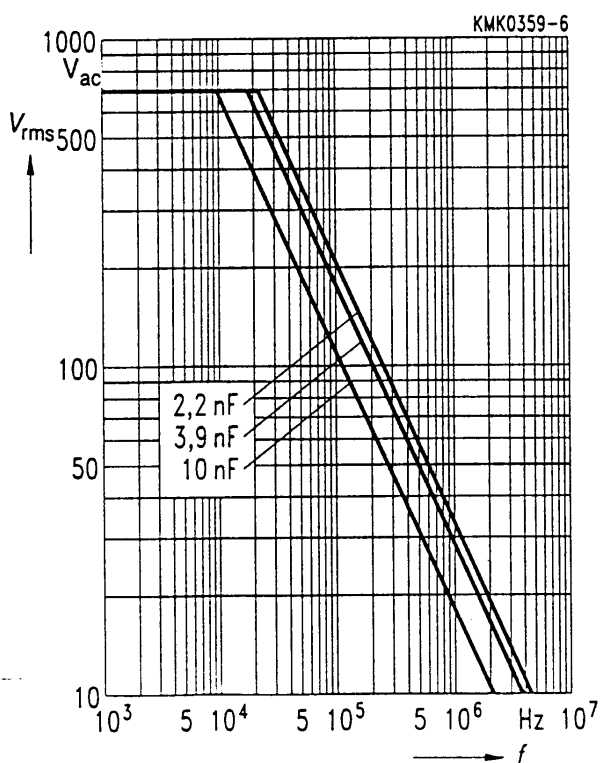
1250 Vdc/ 500 Vac



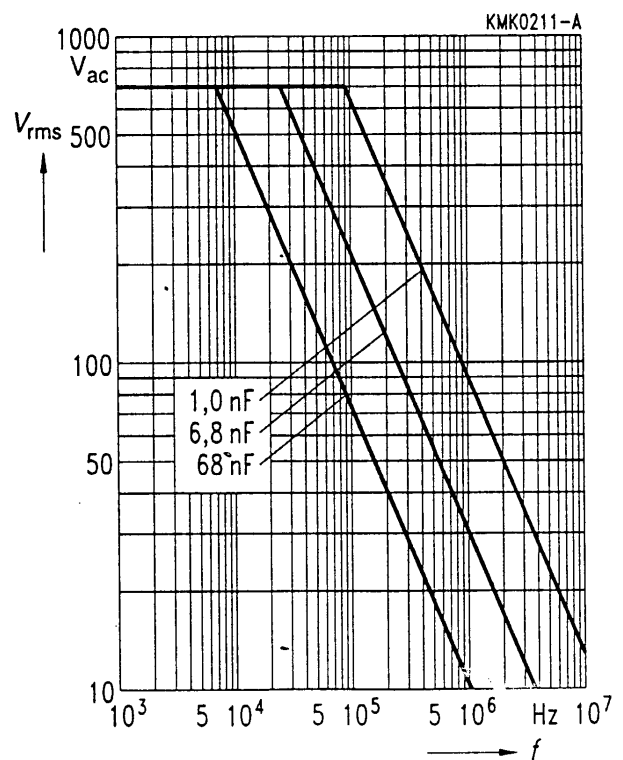
1600 Vdc/ 500 Vac

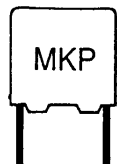


1600 Vdc/ 700 Vac



2000 Vdc/ 700 Vac





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Permissible ac voltage V_{rms} versus frequency f

Lead spacing 15 ... 37,5 mm

2000 Vdc/ 1000 Vac

