



Film Capacitors

Metallized Polyester Film Capacitors (MKT)

Series/Type: B32560 ... B32564

Date: August 2004

Typical applications

- SMPS, converter
- Electronic ballasts
- Compact fluorescent lamps (CFL)

Climatic

- Max. operating temperature: 125 °C
- Climatic category (IEC 60068-1): 55/125/56

Features

- Special dimensions available on request
- High pulse strength

Construction

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

Terminals

- Parallel wire leads, lead-free tinned
- Special lead lengths available on request

Marking

Rated capacitance (coded),
rated DC voltage

Delivery mode

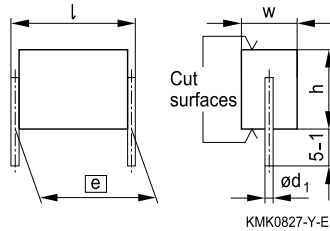
Bulk (untaped)
Taped (Ammo pack or reel) for lead spacing ≤ 15.0 mm.
For notes on taping, refer to chapter "Taping and packing".

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.

Dimensional drawing



Dimensions in mm

Lead spacing $e \pm 0.4$	Lead diameter d_1	Type
7.5	0.5	B32560
10.0	0.5	B32561
15.0	0.6	B32562J
	0.8	B32562H
22.5	0.8	B32563
27.5	0.8	B32564

Overview of available types

Lead spacing	7.5 mm						10.0 mm					15.0 mm				
Type	B32560						B32561					B32562				
Page	5						7					9				
V_R (VDC)	63	100	250	400	630	1000	63	100	250	400	630	100	250	400	630	
V_{rms} (VAC)	40	63	160	200	400	500	40	63	160	200	350	63	160	200	350	
C_R (μ F)																
0.0010																
0.0015																
0.0022																
0.0033																
0.0047																
0.0068																
0.010																
0.015																
0.022																
0.033																
0.047																
0.068																
0.10																
0.15																
0.22																
0.33																
0.47																
0.68																
1.0																
1.5																
2.2																
3.3																
4.7																
6.8																
10																



B32560 ... B32564

General purpose (stacked) SilverCap™

Overview of available types

Lead spacing	22.5 mm			27.5 mm			
Type	B32563			B32564			
Page	10			11			
V_R (VDC)	100	250	400	100	250	400	420
V_{rms} (VAC)	63	160	200	63	160	200	200
C_R (μ F)							
1.0							
1.5							
2.2							
3.3							
4.7							
6.8							
10							
15							
22							
33							

Ordering codes and packing units (lead spacing 7.5 mm)

V_R	V_{rms} $f \leq 60$ Hz VDC	C_R μF	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Ammo pack pcs./unit	Reel pcs./unit	Untaped pcs./unit
63	40	1.0	4.0 × 6.8 × 9.0	B32560J0105+***	2200	1800	1000
		1.5	5.1 × 7.6 × 9.0	B32560J0155+***	1700	1400	500
		2.2	6.5 × 8.2 × 9.0	B32560J0225+***	1500	1200	500
		3.3	8.5 × 9.1 × 9.0	B32560J0335+000	–	–	350
		4.7	9.8 × 11.0 × 9.0	B32560J0475+000	–	–	250
100	63	0.22	2.5 × 5.1 × 9.0	B32560J1224+***	3100	2500	1900
		0.33	2.7 × 5.7 × 9.0	B32560J1334+***	3000	2400	1500
		0.47	3.4 × 6.1 × 9.0	B32560J1474+***	2400	2000	1200
		0.68	4.2 × 6.5 × 9.0	B32560J1684+***	2000	1600	900
		1.0	5.5 × 7.0 × 9.0	B32560J1105+***	1500	1200	500
		1.5	6.7 × 8.2 × 9.0	B32560J1155+***	1250	1000	400
		2.2	8.5 × 9.2 × 9.0	B32560J1225+000	–	–	300
250	160	0.047	2.5 × 5.2 × 9.0	B32560J3473+***	3250	2600	1900
		0.068	2.6 × 5.7 × 9.0	B32560J3683+***	3100	2500	1700
		0.10	3.2 × 6.1 × 9.0	B32560J3104+***	3100	2000	1200
		0.15	3.9 × 7.0 × 9.0	B32560J3154+***	2050	1700	900
		0.22	4.9 × 7.5 × 9.0	B32560J3224+***	1700	1300	650
		0.33	6.4 × 8.2 × 9.0	B32560J3334+***	1300	1100	450
		0.47	7.4 × 9.8 × 9.0	B32560J3474+000	–	–	300
0.68	9.5 × 11.0 × 9.0	B32560J3684+000	–	–	200		

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2.

Composition of ordering code

+ = Capacitance tolerance code:

M = ±20%

K = ±10%

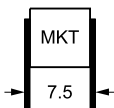
J = ±5%

*** = Packaging code:

289 = Ammo pack

189 = Reel

000 = Untaped (lead length 5 – 1 mm)


B32560
General purpose (stacked) SilverCap™
Ordering codes and packing units (lead spacing 7.5 mm)

V_R	V_{rms} $f \leq 60$ Hz VAC	C_R μF	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Ammo pack pcs./unit	Reel pcs./unit	Untaped pcs./unit
400	200	0.0010	2.5 × 5.5 × 9.0	B32560J6102+***	3500	2800	2300
		0.0015	2.5 × 5.5 × 9.0	B32560J6152+***	3250	2600	1800
		0.0022	2.5 × 5.5 × 9.0	B32560J6222+***	3350	2700	1800
		0.0033	2.5 × 5.5 × 9.0	B32560J6332+***	3100	2500	1700
		0.0047	2.5 × 5.5 × 9.0	B32560J6472+***	3400	2700	1900
		0.0068	2.5 × 5.5 × 9.0	B32560J6682+***	3500	2800	1900
		0.010	2.5 × 5.5 × 9.0	B32560J6103+***	3200	2600	1800
		0.015	2.5 × 5.5 × 9.0	B32560J6153+***	3250	2600	1800
		0.022	2.5 × 5.5 × 9.0	B32560J6223+***	3100	2500	1700
		0.033	2.6 × 6.0 × 9.0	B32560J6333+***	3100	2500	1600
		0.047	3.2 × 6.5 × 9.0	B32560J6473+***	2600	2100	1200
		0.068	3.8 × 7.3 × 9.0	B32560J6683+***	2150	1800	900
		0.10	4.9 × 7.7 × 9.0	B32560J6104+***	1700	1400	500
		0.15	6.5 × 8.2 × 9.0	B32560J6154+***	1350	1000	450
		0.22	7.7 × 9.8 × 9.0	B32560J6224+000	–	–	300
630	400	0.0010	2.5 × 5.5 × 9.0	B32560J8102+***	3700	3000	2300
		0.0015	2.5 × 5.5 × 9.0	B32560J8152+***	3250	2600	1800
		0.0022	2.5 × 5.5 × 9.0	B32560J8222+***	3350	2700	1800
		0.0033	2.5 × 5.5 × 9.0	B32560J8332+***	3500	2800	1900
		0.0047	2.5 × 5.5 × 9.0	B32560J8472+***	3400	2700	1800
		0.0068	3.2 × 6.5 × 9.0	B32560J8682+***	3750	2300	1300
		0.010	3.8 × 7.5 × 9.0	B32560J8103+***	3750	2300	1000
		0.015	4.6 × 8.3 × 9.0	B32560J8153+000	–	–	600
		0.022	5.7 × 8.6 × 9.0	B32560J8223+000	–	–	400
1000	500	0.0022	2.5 × 6.0 × 9.0	B32560J9222+***	3250	2600	1700
		0.0033	3.3 × 6.5 × 9.0	B32560J9332+***	2500	2000	1200
		0.0047	3.6 × 7.4 × 9.0	B32560J9472+***	2250	1900	900

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2.

Composition of ordering code

+ = Capacitance tolerance code:

M = ±20%

K = ±10%

J = ±5%

*** = Packaging code:

289 = Ammo pack

189 = Reel

000 = Untaped (lead length 5 – 1 mm)

Ordering codes and packing units (lead spacing 10 mm)

V_R	V_{rms} $f \leq 60$ Hz	C_R	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Ammo pack pcs./unit	Reel pcs./unit	Untaped pcs./unit
VDC	VAC	μF					
63	40	1.0	3.5 × 6.2 × 11.0	B32561J0105+***	1240	1900	1000
		1.5	4.3 × 6.9 × 11.0	B32561J0155+***	1050	1500	700
		2.2	5.1 × 7.9 × 11.0	B32561J0225+***	850	1250	500
		3.3	6.4 × 9.1 × 11.0	B32561J0335+000	–	–	300
		4.7	7.3 × 11.0 × 11.0	B32561J0475+000	–	–	200
		6.8	8.8 × 12.7 × 11.0	B32561J0685+000	–	–	150
100	63	0.68	3.6 × 6.3 × 11.5	B32561J1684+***	1260	2000	1000
		1.0	4.5 × 6.9 × 11.5	B32561J1105+***	1050	1500	500
		1.5	5.6 × 7.8 × 11.5	B32561J1155+***	810	1200	500
		2.2	6.9 × 9.0 × 11.5	B32561J1225+000	–	–	350
		3.3	7.8 × 10.5 × 11.5	B32561J1335+000	–	–	200
250	160	0.10	2.8 × 5.3 × 11.5	B32561J3104+***	1540	2300	1300
		0.15	3.3 × 6.0 × 11.5	B32561J3154+***	1260	2000	1000
		0.22	4.2 × 6.6 × 11.5	B32561J3224+***	1040	1500	700
		0.33	5.2 × 7.5 × 11.5	B32561J3334+***	840	1300	500
		0.47	6.3 × 8.5 × 11.5	B32561J3474+***	680	1100	350
		0.68	7.5 × 9.7 × 11.5	B32561J3684+000	–	–	200
		1.0	9.5 × 11.0 × 11.5	B32561J3105+000	–	–	150
400	200	0.033	2.5 × 5.1 × 11.5	B32561J6333+***	1620	2300	1500
		0.047	2.6 × 6.0 × 11.5	B32561J6473+***	1560	2300	1300
		0.068	3.2 × 6.6 × 11.5	B32561J6683+***	1390	2100	1000
		0.10	4.0 × 6.9 × 11.5	B32561J6104+***	1090	1700	700
		0.15	5.2 × 7.7 × 11.5	B32561J6154+***	850	1300	500
		0.22	6.6 × 8.5 × 11.5	B32561J6224+***	680	1000	350
		0.33	8.0 × 9.5 × 11.5	B32561J6334+000	–	–	200
		0.47	9.8 × 11.0 × 11.5	B32561J6474+000	–	–	150

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2 .

Composition of ordering code

+ = Capacitance tolerance code:

M = ±20%

K = ±10%

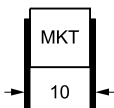
J = ±5%

*** = Packaging code:

289 = Ammo pack

189 = Reel

000 = Untaped (lead length 5 – 1 mm)



B32561

General purpose (stacked) SilverCap™

Ordering codes and packing units (lead spacing 10 mm)

V_R	V_{rms} $f \leq 60 \text{ Hz}$	C_R	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Ammo pack pcs./unit	Reel pcs./unit	Untaped pcs./unit
VDC	VAC	μF					
630	350	0.010	$2.6 \times 4.9 \times 11.0$	B32561J8103+***	1710	2400	1700
		0.015	$2.8 \times 6.3 \times 11.0$	B32561J8153+***	1580	2300	1200
		0.022	$3.4 \times 6.9 \times 11.0$	B32561J8223+***	1300	2000	900
		0.033	$4.2 \times 7.6 \times 11.0$	B32561J8333+***	1020	1600	600
		0.047	$5.3 \times 8.0 \times 11.0$	B32561J8473+***	840	1250	450
		0.068	$6.3 \times 9.0 \times 11.0$	B32561J8683+000	–	–	350
		0.10	$7.3 \times 11.4 \times 11.0$	B32561J8104+000	–	–	200
		0.15	$8.8 \times 13.3 \times 11.0$	B32561J8154+000	–	–	150

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2.

Composition of ordering code

+ = Capacitance tolerance code:

M = $\pm 20\%$

K = $\pm 10\%$

J = $\pm 5\%$

*** = Packaging code:

289 = Ammo pack

189 = Reel

000 = Untaped (lead length 5 – 1 mm)

Ordering codes and packing units (lead spacing 15 mm)

V_R	V_{rms} $f \leq 60$ Hz	C_R	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Ammo pack pcs./unit	Reel pcs./unit	Untaped pcs./unit
VDC	VAC	μF					
100	63	2.2	$4.9 \times 8.0 \times 16.5$	B32562J1225+***	1190	1300	800
		3.3	$6.0 \times 9.3 \times 16.5$	B32562J1335+***	960	1000	500
		4.7	$7.3 \times 10.6 \times 16.5$	B32562H1475+***	790	900	400
		6.8	$9.0 \times 11.8 \times 16.5$	B32562H1685+***	640	700	290
		10	$11.8 \times 13.0 \times 16.5$	B32562H1106+000	–	–	200
250	160	0.47	$5.0 \times 6.7 \times 16.5$	B32562J3474+***	1190	1300	950
		0.68	$6.0 \times 7.8 \times 16.5$	B32562J3684+***	960	1000	500
		1.0	$7.0 \times 9.3 \times 16.5$	B32562J3105+***	830	900	500
		1.5	$8.7 \times 11.0 \times 16.5$	B32562H3155+***	660	700	300
		2.2	$10.7 \times 12.8 \times 16.5$	B32562H3225+000	–	–	200
		3.3	$13.9 \times 14.5 \times 16.5$	B32562H3335+000	–	–	150
400	200	0.22	$4.7 \times 7.5 \times 16.5$	B32562J6224+***	1240	1300	850
		0.33	$6.0 \times 8.3 \times 16.5$	B32562J6334+***	960	1000	500
		0.47	$7.3 \times 9.3 \times 16.5$	B32562J6474+***	790	900	450
		0.68	$8.9 \times 10.8 \times 16.5$	B32562H6684+***	640	700	300
		1.0	$10.9 \times 12.5 \times 16.5$	B32562H6105+000	–	–	200
		1.5	$13.7 \times 15.2 \times 16.5$	B32562H6155+000	–	–	100
630	350	0.22	$9.2 \times 12.2 \times 16.5$	B32562H8224+000	–	–	350
		0.33	$11.2 \times 14.2 \times 16.5$	B32562H8334+000	–	–	250
		0.47	$13.5 \times 16.3 \times 16.5$	B32562H8474+000	–	–	180

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2.

Composition of ordering code

+ = Capacitance tolerance code:

M = $\pm 20\%$

K = $\pm 10\%$

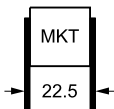
J = $\pm 5\%$

*** = Packaging code:

289 = Ammo pack

189 = Reel

000 = Untaped (lead length 5 – 1 mm)


B32563
General purpose (stacked) SilverCap™
Ordering codes and packing units (lead spacing 22.5 mm)

V_R	V_{rms} $f \leq 60$ Hz	C_R	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Untaped pcs./unit
VDC	VAC	μF			
100	63	6.8	7.0 × 10.5 × 24.0	B32563J1685+000	920
		10	8.6 × 12.2 × 24.0	B32563J1106+000	960
		15	10.9 × 14.0 × 24.0	B32563J1156+000	620
		22	12.8 × 17.2 × 24.0	B32563J1226+000	360
250	160	2.2	8.3 × 11.2 × 24.0	B32563J3225+000	740
		3.3	10.1 × 13.5 × 24.0	B32563J3335+000	700
		4.7	12.2 × 15.5 × 24.0	B32563J3475+000	390
400	200	1.0	8.3 × 11.2 × 24.0	B32563J6105+000	850
		1.5	10.3 × 13.2 × 24.0	B32563J6155+000	660
		2.2	12.6 × 15.5 × 24.0	B32563J6225+000	360

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2 .

Composition of ordering code

+ = Capacitance tolerance code:

M = ±20%

K = ±10%

J = ±5%

Packaging code:

000 = Untaped (lead length 5 – 1 mm)

Ordering codes and packing units (lead spacing 27.5 mm)

V_R	V_{rms} $f \leq 60$ Hz	C_R	Max. dimensions $w \times h \times l$ mm	Ordering code (composition see below)	Untaped pcs./unit
VDC	VAC	μF			
100	63	10	7.6 × 11.0 × 29.0	B32564J1106+000	680
		15	9.1 × 13.5 × 29.0	B32564J1156+000	430
		22	11.0 × 16.0 × 29.0	B32564J1226+000	320
		33	13.0 × 19.8 × 29.0	B32564J1336+000	360
250	160	3.3	7.9 × 14.0 × 29.0	B32564J3335+000	750
		4.7	9.6 × 15.8 × 29.0	B32564J3475+000	400
		6.8	11.9 × 18.0 × 29.0	B32564J3685+000	300
		10	13.8 × 22.5 × 29.0	B32564J3106+000	280
400	200	1.5	7.8 × 14.2 × 29.0	B32564J6155+000	750
		2.2	9.6 × 16.4 × 29.0	B32564J6225+000	400
		3.3	12.2 × 18.8 × 29.0	B32564J6335+000	330
		4.7	14.2 × 22.8 × 29.0	B32564J6475+000	260
420	200	4.7	16.0 × 20.0 × 29.0	B32564T6475K000	290
		6.8	16.0 × 20.0 × 29.0	B32564T6685K000	290

Further E series and intermediate capacitance values on request.

Special dimensions available on request.

For corresponding design rules, refer to chapter "General technical information", Section 1.3.2.

The technical data given on the next pages do not apply to 420 V series. Please contact your nearest EPCOS representative if you need further information.

Composition of ordering code

+ = Capacitance tolerance code:

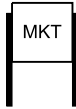
M = $\pm 20\%$

K = $\pm 10\%$

J = $\pm 5\%$

Packaging code:

000 = Untaped (lead length 5 – 1 mm)



B32560 ... B32564

General purpose (stacked) SilverCap™

Technical data

Operating temperature range	Max. operating temperature $T_{op,max}$		125 °C	
	Upper category temperature T_{max}		+125 °C	
	Lower category temperature T_{min}		-55 °C	
	Rated temperature T_R		+85 °C	
Dissipation factor $\tan \delta$ (in 10^{-3}) at 20 °C (upper limit values)	at	$C_R \leq 0.1 \mu F$	$0.1 \mu F < C_R \leq 1 \mu F$	$C_R > 1 \mu F$
	1 kHz	8	8	10
	10 kHz	15	15	—
	100 kHz	30	—	—
Insulation resistance R_{ins} or time constant $\tau = C_R \cdot R_{ins}$ at 20 °C, rel. humidity $\leq 65\%$ (minimum as-delivered values)	V_R	$C_R \leq 0.33 \mu F$		$C_R > 0.33 \mu F$
	≤ 100 VDC	3750 M Ω		1250 s
	≥ 250 VDC	7500 M Ω		2500 s
DC test voltage	$1.4 \cdot V_R$, 2 s			
Category voltage V_C (continuous operation with V_{DC} or V_{AC} at $f \leq 60$ Hz)	T_A (°C)	DC voltage derating		AC voltage derating
	$T_A \leq 85$	$V_C = V_R$		$V_{C,rms} = V_{rms}$
	$85 < T_A \leq 125$	$V_C = V_R \cdot (165 - T_A)/80$		$V_{C,rms} = V_{rms} \cdot (165 - T_A)/80$
Operating voltage V_{op} for short operating periods (V_{DC} or V_{AC} at $f \leq 60$ Hz)	T_A (°C)	DC voltage (max. hours)		AC voltage (max. hours)
	$T_A \leq 100$	$V_{op} = 1.25 \cdot V_C$ (2000 h)		$V_{op} = 1.0 \cdot V_{C,rms}$ (2000 h)
	$100 < T_A \leq 125$	$V_{op} = 1.25 \cdot V_C$ (1000 h)		$V_{op} = 1.0 \cdot V_{C,rms}$ (1000 h)
Damp heat test	56 days ¹⁾ /40 °C/93% relative humidity			
Limit values after damp heat test	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_{ins} or time constant $\tau = C_R \cdot R_{ins}$		$\geq 50\%$ of minimum as-delivered values	
Reliability:				
Failure rate λ	2 fit ($\leq 2 \cdot 10^{-9}$ /h) at $0.5 \cdot V_R$, 40 °C			
Service life t_{SL}	200 000 h at $1.0 \cdot V_R$, 40 °C			
	For conversion to other operating conditions and temperatures, refer to chapter "Quality assurance" .			
Failure criteria:				
Total failure	Short circuit or open circuit			
Failure due to variation of parameters	Capacitance change $ \Delta C/C $		$> 10\%$	
	Dissipation factor $\tan \delta$		$> 2 \cdot$ upper limit value	
	Insulation resistance R_{ins} or time constant $\tau = C_R \cdot R_{ins}$		< 150 M Ω ($C_R \leq 0.33 \mu F$) < 50 s ($C_R > 0.33 \mu F$)	

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

Pulse handling capability

"dV/dt" represents the maximum permissible voltage change per unit of time for non-sinusoidal voltages, expressed in V/μs.

"k₀" represents the maximum permissible pulse characteristic of the waveform applied to the capacitor, expressed in V²/μs.

Note:

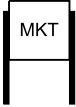
The values of dV/dt and k₀ provided below must not be exceeded in order to avoid damaging the capacitor.

dV/dt values

Lead spacing		7.5 mm	10 mm	15 mm	22.5 mm	27.5 mm
V _R VDC	V _{rms} VAC	dV/dt in V/μs				
63	40	120	60	–	–	–
100	63	150	75	50	50	25
250	160	200	150	100	100	50
400	200	275	175	125	125	60
420	200	–	–	–	–	60
630	350	–	320	150	–	–
630	400	320	–	–	–	–
1000	500	360	–	–	–	–

k₀ values

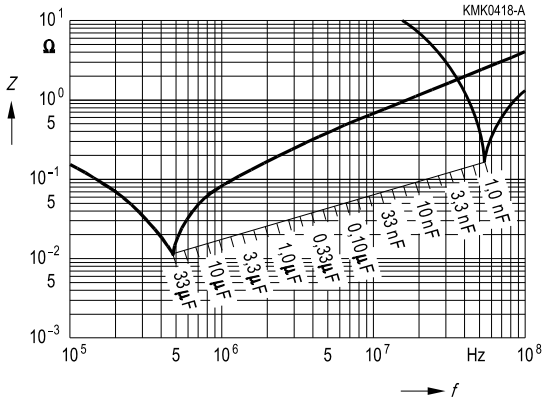
Lead spacing		7.5 mm	10 mm	15 mm	22.5 mm	27.5 mm
V _R VDC	V _{rms} VAC	k ₀ in V ² /μs				
63	40	15 000	7500	–	–	–
100	63	30 000	15 000	10 000	10 000	5 000
250	160	100 000	75 000	50 000	50 000	25 000
400	200	220 000	140 000	100 000	100 000	50 000
420	200	–	–	–	–	50 000
630	350	–	400 000	190 000	–	–
630	400	400 000	–	–	–	–
1000	500	720 000	–	–	–	–



B32560 ... B32564

General purpose (stacked) SilverCap™

Impedance Z versus frequency f
(typical values)

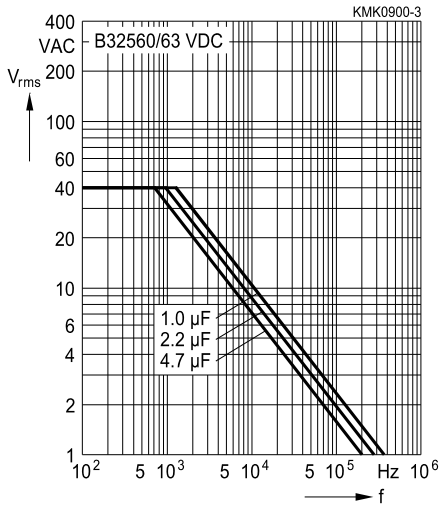


Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ C$)

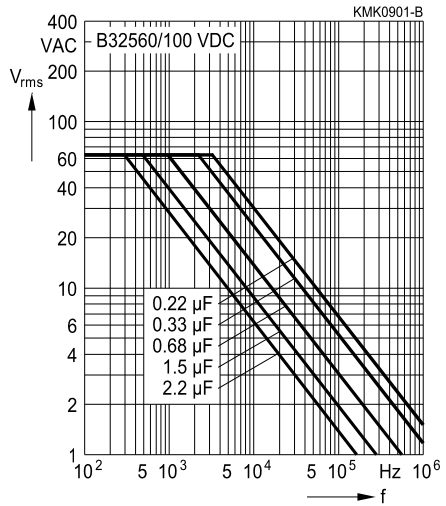
For $T_A > 55^\circ C$, please refer to "General technical information", section 3.2.3.

Lead spacing 7.5 mm

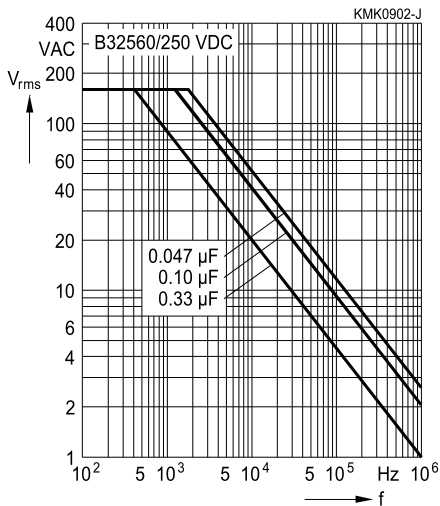
63 VDC/40 VAC



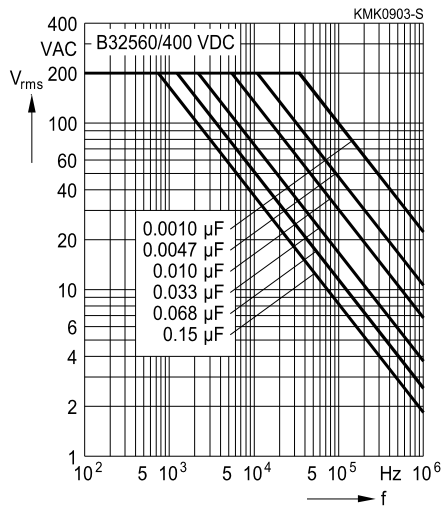
100 VDC/63 VAC

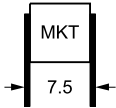


250 VDC/160 VAC



400 VDC/200 VAC





B32560

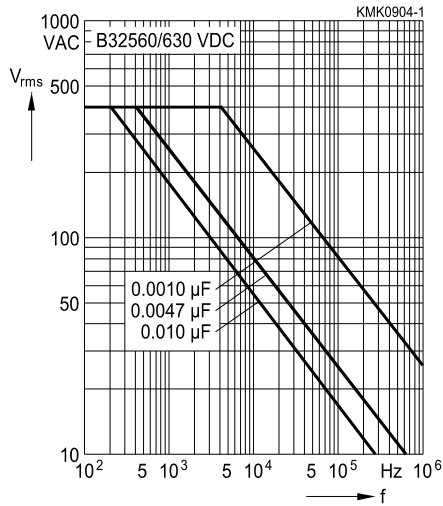
General purpose (stacked) SilverCap™

Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ\text{C}$)

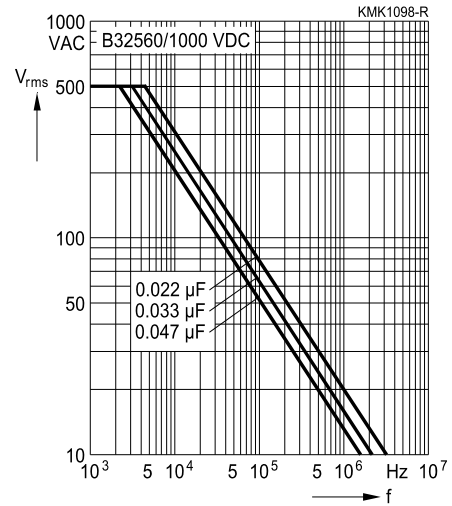
For $T_A > 55^\circ\text{C}$, please refer to "General technical information", section 3.2.3.

Lead spacing 7.5 mm

630 VDC/400 VAC



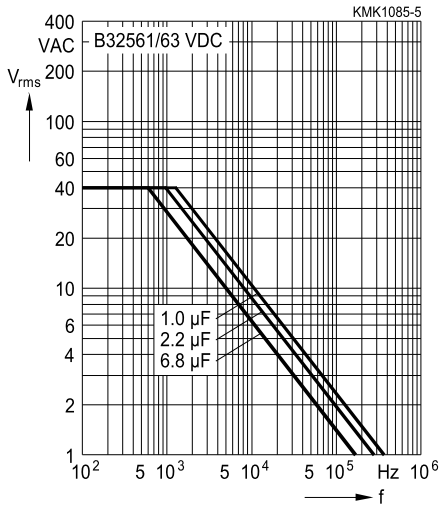
1000 VDC/500 VAC



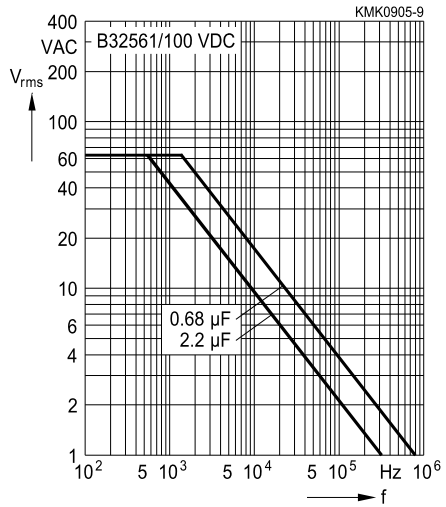
Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ C$)
 For $T_A > 55^\circ C$, please refer to "General technical information", section 3.2.3.

Lead spacing 10 mm

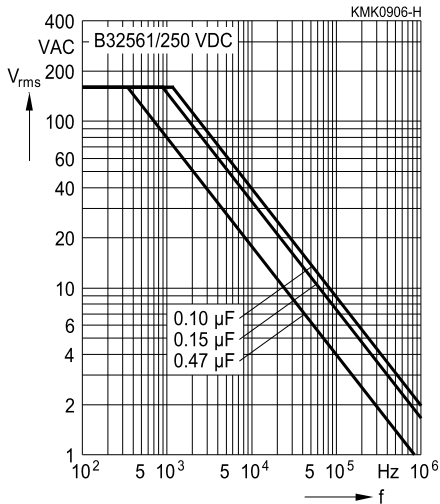
63 VDC/40 VAC



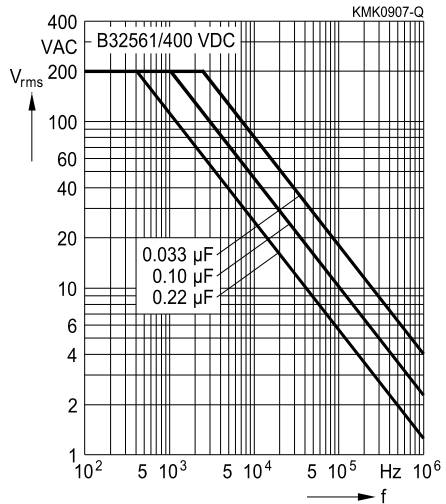
100 VDC/63 VAC

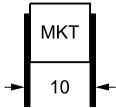


250 VDC/160 VAC



400 VDC/200 VAC





B32561

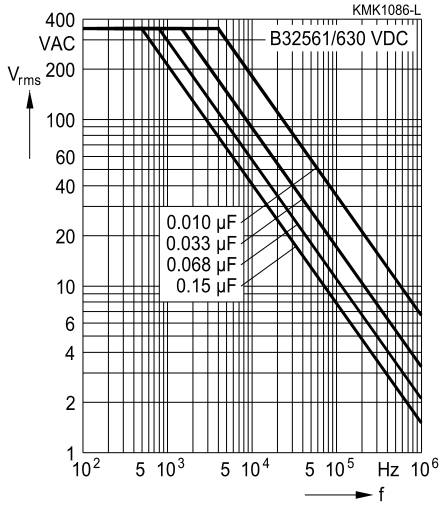
General purpose (stacked) SilverCap™

Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ\text{C}$)

For $T_A > 55^\circ\text{C}$, please refer to "General technical information", section 3.2.3.

Lead spacing 10 mm

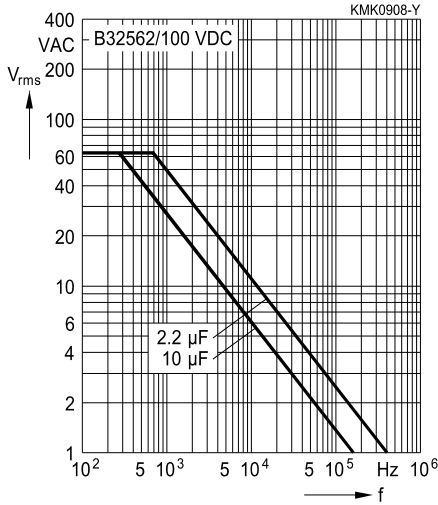
630 VDC/350 VAC



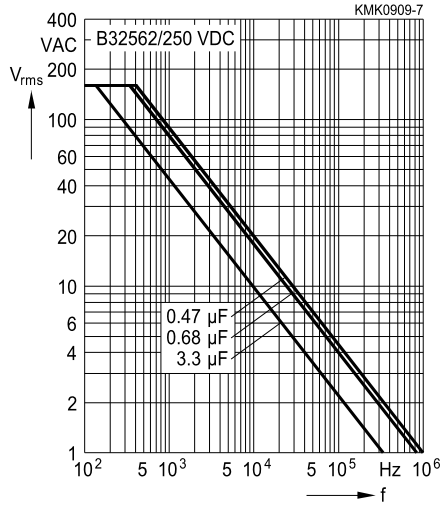
Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ C$)
 For $T_A > 55^\circ C$, please refer to "General technical information", section 3.2.3.

Lead spacing 15 mm

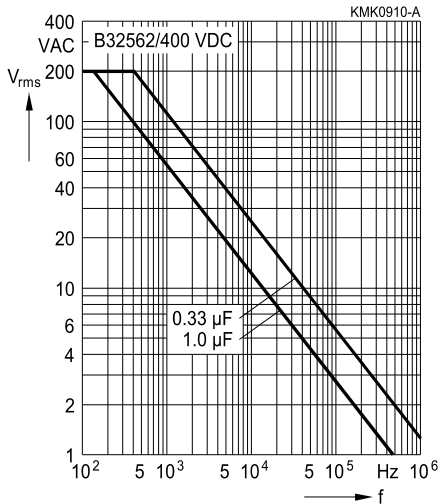
100 VDC/63 VAC



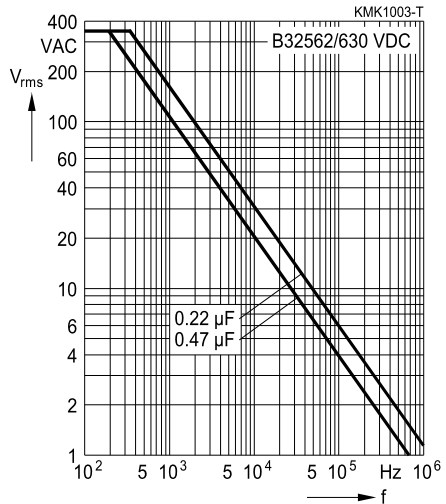
250 VDC/160 VAC

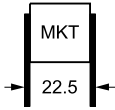


400 VDC/200 VAC



630 VDC/350 VAC





B32563

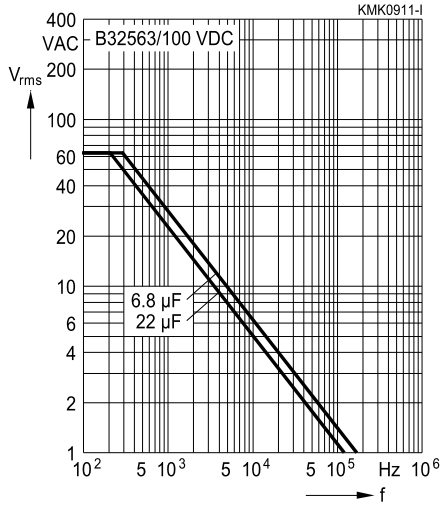
General purpose (stacked) SilverCap™

Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ\text{C}$)

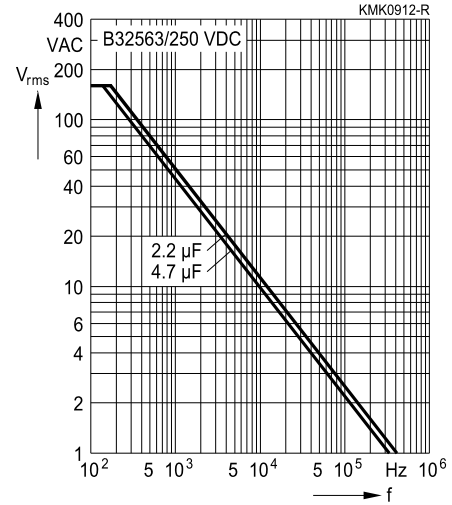
For $T_A > 55^\circ\text{C}$, please refer to "General technical information", section 3.2.3.

Lead spacing 22.5 mm

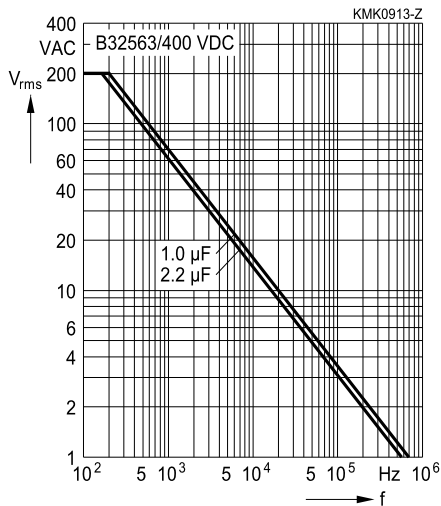
100 VDC/63 VAC



250 VDC/160 VAC



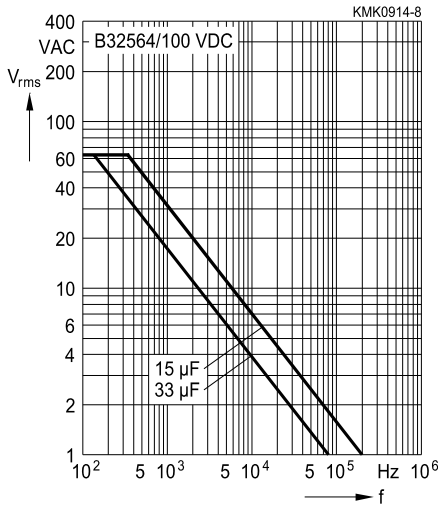
400 VDC/200 VAC



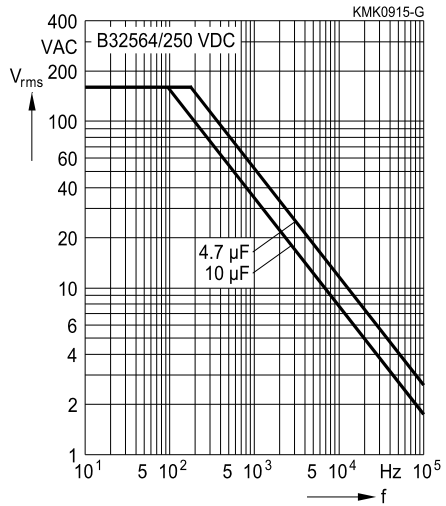
Permissible AC voltage V_{rms} versus frequency f (for sinusoidal waveforms, $T_A \leq 55^\circ C$)
 For $T_A > 55^\circ C$, please refer to "General technical information", section 3.2.3.

Lead spacing 27.5 mm

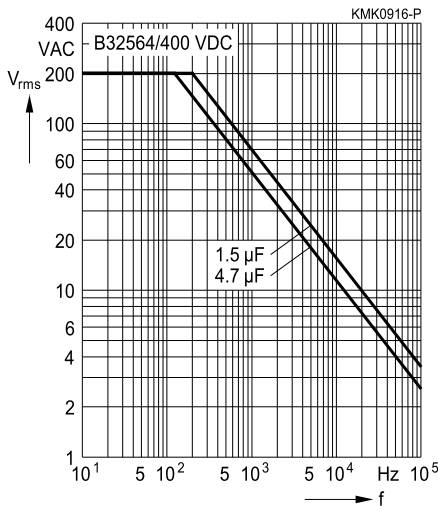
100 VDC/63 VAC



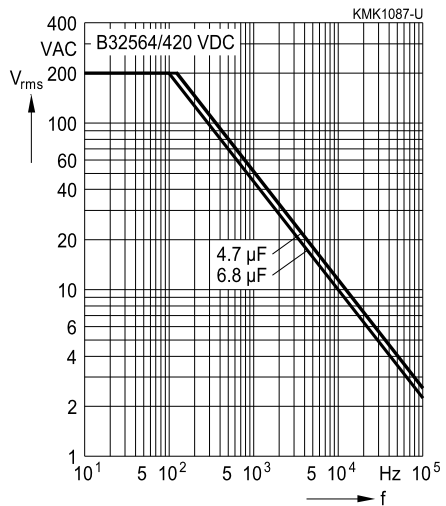
250 VDC/160 VAC



400 VDC/200 VAC



420 VDC/200 VAC



Important Notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of passive electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of a passive electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of a passive electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as “hazardous”)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.
We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available.
6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the “General Terms of Delivery for Products and Services in the Electrical Industry” published by the German Electrical and Electronics Industry Association (ZVEI)**.
7. The trade names EPCOS, CeraDiode, CSSP, PhaseCap, PhaseMod, SilverCap, SIFI, SIMID, SIKOREL, SIOV, SIP5D, SIP5K, TOPcap, UltraCap, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.