

## General-purpose grade capacitors

### Applications

- General-purpose applications in the entertainment industry
- Semi-professional to professional application range
- For filtering, coupling and pulse circuits

### Features

- Miniaturized dimensions
- High CU product, i.e. very compact
- Good electrical characteristics
- Replaces all old series B41822 / B43822 / B41835 / B43835

### Construction

- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on the insulating sleeve
- Stand off rubber seal
- Case with safety vent from diameter 6,3 mm

### Delivery mode

Special terminal configurations and packing:

- Bulk
- Taped, Ammo pack
- Cut
- Kinked
- PAPR (protection against polarity reversal)

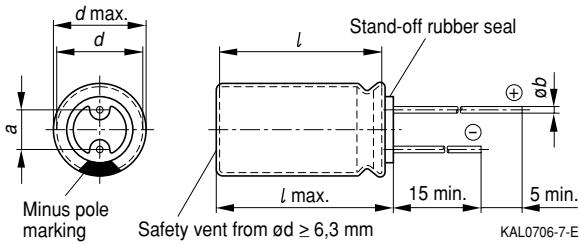
Refer to page 503 for further details and ordering example.



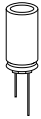
KAL0707-F


**B41821 / B43821**
**Standard Series – 85 °C**
**Specifications and characteristics in brief**

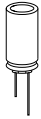
Type	B41821	B43821
Rated voltage $U_R$	6,3 ... 100 VDC	160 ... 450 VDC
Surge voltage $U_S$	$1,15 \cdot U_R$	$1,1 \cdot U_R$
Rated capacitance $C_R$	0,1 ... 10 000 $\mu$ F	0,47 ... 560 $\mu$ F
Capacitance tolerance	$\pm 20 \% \triangleq M$	$\pm 20 \% \triangleq M$
Useful life		
85 °C; $U_R$ ; $I_{-R}$	> 2 000 h	> 3 000 h
40 °C; $U_R$ ; $1,3 \cdot I_{-R}$	> 100 000 h	—
40 °C; $U_R$ ; $1,6 \cdot I_{-R}$	—	> 100 000 h
Requirements:	$\Delta C/C \leq \pm 45 \%$ of initial value $\tan \delta \leq 3$ times initial specified limit $I_L \leq$ initial specified limit Failure percentage: $\leq 1 \%$ Failure rate: $\leq 100$ fit ( $\leq 100 \cdot 10^{-9}/h$ ) (for definition "fit", refer to chapter "Quality", page 62)	
Voltage endurance test		
85 °C; $U_R$	2 000 h	2 000 h
Post test requirements:	$\Delta C/C \leq \pm 30 \%$ of initial value $\tan \delta \leq 2$ times initial specified limit $I_L \leq$ initial specified limit	
Vibration resistance	To IEC 60068-2, test Fc: displacement amplitude 0,75 mm, frequency range 10 ... 2000 Hz, acceleration max. 10 g, duration $3 \times 2$ h	
IEC climatic category	To IEC 60068-1: $U_R \leq 250$ V: 40/085/56 (– 40 °C/+ 85 °C/56 days damp heat test) $U_R \geq 350$ V: 25/085/56 (– 25 °C/+ 85 °C/56 days damp heat test)	
Sectional specification	IEC 60384-4	


**Dimensional drawing**

**Dimensions and weights**

Dimensions (mm)				Approx. weight
$d \times l$	$d_{\max} \times l_{\max}$	$a \pm 0,5$	$b$	g
5 × 11	5,5 × 12	2,0	0,50 ± 0,05	0,5
6,3 × 11	6,8 × 12	2,5	0,50 ± 0,05	0,7
8 × 11	8,5 × 12	3,5	0,60 ± 0,05	1,0
10 × 12,5	10,5 × 13,5	5,0	0,60 ± 0,05	1,6
10 × 16	10,5 × 17	5,0	0,60 ± 0,05	1,9
10 × 20	10,5 × 22	5,0	0,60 ± 0,05	2,6
12,5 × 20	13 × 22	5,0	0,60 ± 0,05	3,6
12,5 × 25	13 × 27	5,0	0,60 ± 0,05	4,5
16 × 20	16,5 × 22	7,5	0,80 ± 0,05	5,5
16 × 25	16,5 × 27	7,5	0,80 ± 0,05	7,5
16 × 31,5	16,5 × 33,5	7,5	0,80 ± 0,05	7,8
18 × 31,5	18,5 × 32,5	7,5	0,80 ± 0,1	11
18 × 35	18,5 × 36	7,5	0,80 ± 0,1	13
18 × 40	18,5 × 41	7,5	0,80 ± 0,1	16
20 × 30	20,5 × 32	10,0	0,80 ± 0,1	14
20 × 35	20,5 × 37	10,0	0,80 ± 0,1	18
20 × 40	20,5 × 42	10,0	0,80 ± 0,1	20
22 × 35	22,5 × 37	10,0	1,0 ± 0,1	21
22 × 40	22,5 × 42	10,0	1,0 ± 0,1	23

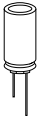

**B41821 / B43821**
**Standard Series – 85 °C**
**Overview of available types**
**B41821**

$U_R$ (VDC)	6,3	10	16	25	35	50	63	100
$C_R$ (μF)	Case dimensions $d \times l$ (mm)							
0,1								5 × 11
0,22								5 × 11
0,33								5 × 11
0,47								5 × 11
0,68								5 × 11
1								5 × 11
1,5								5 × 11
2,2								5 × 11
3,3								5 × 11
4,7								5 × 11
6,8							5 × 11	5 × 11
10						5 × 11	5 × 11	6,3 × 11
22						5 × 11	6,3 × 11	8 × 11
33					5 × 11	6,3 × 11	6,3 × 11	10 × 12,5
47				5 × 11	5 × 11	6,3 × 11	8 × 11	10 × 12,5
68			5 × 11	6,3 × 11	6,3 × 11	8 × 11	10 × 12,5	10 × 16
100		5 × 11	5 × 11	6,3 × 11	6,3 × 11	8 × 11	10 × 12,5	10 × 20
150		6,3 × 11	6,3 × 11	8 × 11	8 × 11	10 × 12,5	10 × 16	12,5 × 25
220	6,3 × 11	6,3 × 11	6,3 × 11	8 × 11	10 × 12,5	10 × 12,5	10 × 16	12,5 × 25
270	6,3 × 11	8 × 11	8 × 11	10 × 12,5	10 × 12,5	10 × 16	10 × 20	16 × 25
330	6,3 × 11	8 × 11	8 × 11	10 × 12,5	10 × 12,5	10 × 16	10 × 20	16 × 25
470	8 × 11	8 × 11	10 × 12,5	10 × 12,5	10 × 16	10 × 20	12,5 × 25	16 × 31,5
560	8 × 11	10 × 12,5	10 × 12,5	10 × 16	10 × 20	12,5 × 25	16 × 20	16 × 31,5
680	10 × 12,5	10 × 12,5	10 × 16	10 × 20	10 × 20	12,5 × 25	16 × 25	20 × 30
1 000	10 × 12,5	10 × 12,5	10 × 16	10 × 20	12,5 × 25	16 × 20	16 × 31,5	20 × 40
1 500	10 × 16	10 × 20	12,5 × 25	12,5 × 25	16 × 25	16 × 31,5	18 × 35	
2 200	10 × 20	10 × 20	12,5 × 25	12,5 × 25 16,0 × 20	16 × 25	18 × 35	18 × 40 20 × 40	
3 300	10 × 20	12,5 × 25	16 × 25	16 × 25	18 × 31,5	18 × 40		
4 700	12,5 × 25	16 × 20	16 × 25	16 × 31,5	18 × 40	22 × 40		
6 800		16 × 31,5	18 × 31,5	18 × 40	22 × 40			
8 200		18 × 31,5	20 × 30	22 × 35				
10 000		18 × 35	20 × 35	22 × 40				


**B43821**

$U_R$ (VDC)	160	200	250	350	400	450
$C_R$ ( $\mu$ F)	Case dimensions $d \times l$ (mm)					
0,47	6,3 × 11	6,3 × 11	6,3 × 11	6,3 × 11		
0,68	6,3 × 11	6,3 × 11	6,3 × 11	6,3 × 11		
1	6,3 × 11	6,3 × 11	6,3 × 11	6,3 × 11		
1,5	6,3 × 11	6,3 × 11	6,3 × 11	8 × 11		
2,2	6,3 × 11	6,3 × 11	6,3 × 11	8 × 11	10 × 12,5	10 × 12,5
3,3	6,3 × 11	6,3 × 11	8 × 11	10 × 12,5	10 × 12,5	10 × 16
4,7	6,3 × 11	8 × 11	8 × 11	10 × 12,5	10 × 16	10 × 20
6,8	8 × 11	10 × 12,5	10 × 12,5	10 × 16	10 × 16	10 × 20
10	8 × 11	10 × 12,5	10 × 16	10 × 20	10 × 20	12,5 × 25
22	10 × 16	10 × 20	10 × 20	12,5 × 25	12,5 × 25 16 × 20	16 × 25
33	10 × 20	10 × 20	12,5 × 20 12,5 × 25	16 × 25	16 × 25	16 × 31,5
47	12,5 × 25	12,5 × 25	12,5 × 25 16 × 20	16 × 25	16 × 31,5	18 × 31,5
68	12,5 × 25 16 × 20	16 × 20	16 × 25	18 × 31,5	18 × 31,5	18 × 35
100	16 × 25	16 × 25	16 × 31,5	20 × 30	20 × 35	20 × 40
150	16 × 31,5	18 × 31,5	18 × 40	20 × 40	20 × 40	
220	18 × 31,5	18 × 35	18 × 40			
270	18 × 40	20 × 35	22 × 35			
330	20 × 30	22 × 35	22 × 40			
470	22 × 35					
560	22 × 40					

Other capacitance and voltage ratings are available upon request.


**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

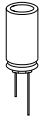
$U_R$	$C_R$	Case dimensions	$I_{L, \max}$	$\tan \delta_{\max}$	$ESR_{\max}$	$I_{\sim R}$	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu\text{F}$	$d \times l$ mm	5 min 20 °C $\mu\text{A}$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	120 Hz 85 °C mA	
<b>B41821</b>							
6,3	220	6,3 × 11	14	0,28	2,1	200	B41821A2227M00*
	270	6,3 × 11	17	0,28	1,7	210	B41821A2277M00*
	330	6,3 × 11	21	0,28	1,4	270	B41821A2337M00*
	470	8 × 11	30	0,28	1,0	330	B41821A2477M00*
	560	8 × 11	35	0,28	0,83	360	B41821A2567M00*
	680	10 × 12,5	43	0,28	0,68	460	B41821A2687M00*
	1 000	10 × 12,5	63	0,28	0,46	560	B41821A2108M00*
	1 500	10 × 16	95	0,28	0,31	750	B41821A2158M00*
	2 200	10 × 20	139	0,30	0,23	950	B41821A2228M00*
	3 300	10 × 20	208	0,32	0,16	1 050	B41821A2338M00* <sup>2)</sup>
4 700	12,5 × 25	296	0,34	0,12	1 300	B41821A2478M00* <sup>2)</sup>	
10	100	5 × 11	10	0,24	4,0	145	B41821A3107M00*
	150	6,3 × 11	15	0,24	2,7	160	B41821A3157M00*
	220	6,3 × 11	22	0,24	1,8	240	B41821A3227M00*
	270	8 × 11	27	0,24	1,5	255	B41821A3277M00*
	330	8 × 11	33	0,24	1,2	280	B41821A3337M00*
	470	8 × 11	47	0,24	0,85	400	B41821A3477M00*
	560	10 × 12,5	56	0,24	0,71	420	B41821A3567M00*
	680	10 × 12,5	68	0,24	0,59	460	B41821A3687M00*
	1 000	10 × 12,5	100	0,24	0,40	640	B41821A3108M00*
	1 500	10 × 20	150	0,24	0,27	730	B41821A3158M00*
	2 200	10 × 20	220	0,26	0,20	1 040	B41821A3228M00*
	3 300	12,5 × 25	330	0,28	0,14	1 450	B41821A3338M00*
	4 700	16 × 20	470	0,30	0,11	1 540	B41821A3478M00* <sup>2)</sup>
	6 800	16 × 31,5	680	0,34	0,08	2 110	B41821A3688M00* <sup>2)</sup>
	8 200	18 × 31,5	820	0,38	0,08	2 310	B41821A3828M00* <sup>2)</sup>
10 000	18 × 35	1 000	0,42	0,07	2 520	B41821A3109M00* <sup>2)</sup>	

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.

2) Type available upon request


**Technical data and ordering codes**

$U_R$ VDC	$C_R$ 120 Hz 20 °C $\mu\text{F}$	Case dimensions $d \times l$ mm	$I_{L, \max}$ 5 min 20 °C $\mu\text{A}$	$\tan \delta_{\max}$ 120 Hz 20 °C	$ESR_{\max}$ 120 Hz 20 °C $\Omega$	$I_{\sim R}$ 120 Hz 85 °C mA	Ordering code <sup>1)</sup>
16	68	5 × 11	11	0,20	4,9	90	B41821A4686M00*
	100	5 × 11	16	0,20	3,3	160	B41821A4107M00*
	150	6,3 × 11	24	0,20	2,2	165	B41821A4157M00*
	220	6,3 × 11	35	0,20	1,5	260	B41821F4227M00*
	270	8 × 11	43	0,20	1,2	270	B41821A4277M00*
	330	8 × 11	53	0,20	1,0	350	B41821A4337M00*
	470	10 × 12,5	75	0,20	0,71	500	B41821A4477M00*
	560	10 × 12,5	90	0,20	0,59	450	B41821A4567M00*
	680	10 × 16	109	0,20	0,49	540	B41821A4687M00*
	1 000	10 × 16	160	0,20	0,33	790	B41821A4108M00*
	1 500	12,5 × 25	240	0,20	0,22	970	B41821A4158M00*
	2 200	12,5 × 25	352	0,22	0,17	1 350	B41821A4228M00*
	3 300	16 × 25	528	0,24	0,12	1 580	B41821A4338M00*
	4 700	16 × 25	752	0,26	0,09	2 100	B41821A4478M00* <sup>2)</sup>
	6 800	18 × 31,5	1 088	0,30	0,07	2 250	B41821A4688M00* <sup>2)</sup>
	8 200	20 × 30	1 312	0,34	0,07	2 500	B41821A4828M00* <sup>2)</sup>
	10 000	20 × 35	1 600	0,38	0,06	2 600	B41821A4109M00* <sup>2)</sup>
25	47	5 × 11	12	0,16	5,6	115	B41821A5476M00*
	68	6,3 × 11	17	0,16	3,9	125	B41821A5686M00*
	100	6,3 × 11	25	0,16	2,7	190	B41821A5107M00*
	150	8 × 11	38	0,16	1,8	200	B41821A5157M00*
	220	8 × 11	55	0,16	1,2	330	B41821A5227M00*
	270	10 × 12,5	68	0,16	1,0	350	B41821A5277M00*
	330	10 × 12,5	83	0,16	0,80	400	B41821A5337M00*
	470	10 × 12,5	118	0,16	0,56	550	B41821B5477M00*
	560	10 × 16	140	0,16	0,47	590	B41821A5567M00*
	680	10 × 20	170	0,16	0,39	660	B41821A5687M00*
	1 000	10 × 20	250	0,16	0,27	960	B41821A5108M00*
	1 500	12,5 × 25	375	0,16	0,18	1 100	B41821A5158M00*

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.

2) Type available upon request


**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

$U_R$ VDC	$C_R$ 120 Hz 20 °C $\mu\text{F}$	Case dimensions $d \times l$ mm	$I_{L, \max}$ 5 min 20 °C $\mu\text{A}$	$\tan \delta_{\max}$ 120 Hz 20 °C	$ESR_{\max}$ 120 Hz 20 °C $\Omega$	$I_{\sim R}$ 120 Hz 85 °C mA	Ordering code <sup>1)</sup>
25	2 200	12,5 × 25	550	0,18	0,14	1 550	B41821F5228M00*
	2 200	16 × 20	550	0,18	0,14	1 600	B41821A5228M00*
	3 300	16 × 25	825	0,20	0,10	1 980	B41821A5338M00*
	4 700	16 × 31,5	1 175	0,22	0,08	2 450	B41821A5478M00*
	6 800	18 × 40	1 700	0,26	0,06	2 600	B41821A5688M00*
	8 200	22 × 35	2 050	0,30	0,06	2 700	B41821A5828M00*
	10 000	22 × 40	2 500	0,34	0,06	3 000	B41821A5109M00*
35	33	5 × 11	12	0,14	7,0	85	B41821A7336M00*
	47	5 × 11	16	0,14	4,9	130	B41821A7476M00*
	68	6,3 × 11	24	0,14	3,4	160	B41821A7686M00*
	100	6,3 × 11	35	0,14	2,3	180	B41821F7107M00*
	150	8 × 11	53	0,14	1,5	270	B41821A7157M00*
	220	10 × 12,5	77	0,14	1,1	390	B41821A7227M00*
	270	10 × 12,5	95	0,14	0,9	430	B41821A7277M00*
	330	10 × 12,5	116	0,14	0,70	450	B41821A7337M00*
	470	10 × 16	165	0,14	0,49	650	B41821A7477M00*
	560	10 × 20	196	0,14	0,41	770	B41821A7567M00*
	680	10 × 20	238	0,14	0,34	840	B41821A7687M00*
	1 000	12,5 × 25	350	0,14	0,23	1 250	B41821A7108M00*
	1 500	16 × 25	525	0,14	0,15	1 400	B41821A7158M00*
	2 200	16 × 25	770	0,16	0,12	1 800	B41821F7228M00*
	3 300	18 × 31,5	1 155	0,18	0,09	2 150	B41821A7338M00*
4 700	18 × 40	1 645	0,20	0,07	2 300	B41821A7478M00*	
6 800	22 × 40	2 380	0,24	0,06	2 500	B41821A7688M00*	
50	10	5 × 11	5	0,12	20	60	B41821A6106M00*
	22	5 × 11	11	0,12	9,0	95	B41821A6226M00*
	33	6,3 × 11	17	0,12	6,0	110	B41821A6336M00*
	47	6,3 × 11	24	0,12	4,2	155	B41821A6476M00*
	68	8 × 11	34	0,12	2,9	190	B41821A6686M00*
	100	8 × 11	50	0,12	2,0	260	B41821A6107M00*
	150	10 × 12,5	75	0,12	1,3	320	B41821A6157M00*

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.




**Technical data and ordering codes**

$U_R$	$C_R$	Case dimensions	$I_{L, \max}$	$\tan \delta_{\max}$	$ESR_{\max}$	$I_{\sim R}$	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu\text{F}$	$d \times l$ mm	5 min 20 °C $\mu\text{A}$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	120 Hz 85 °C mA	
50	220	10 × 12,5	110	0,12	0,90	430	B41821A6227M00*
	270	10 × 16	135	0,12	0,74	480	B41821A6277M00*
	330	10 × 16	165	0,12	0,60	510	B41821A6337M00*
	470	10 × 20	235	0,12	0,42	700	B41821A6477M00*
	560	12,5 × 25	280	0,12	0,36	900	B41821A6567M00*
	680	12,5 × 25	340	0,12	0,29	1 030	B41821A6687M00*
	1 000	16 × 20	500	0,12	0,20	1 100	B41821A6108M00*
	1 500	16 × 31,5	750	0,12	0,13	1 540	B41821A6158M00*
	2 200	18 × 35	1 100	0,14	0,11	1 700	B41821A6228M00*
	3 300	18 × 40	1 650	0,16	0,08	1 900	B41821A6338M00*
4 700	22 × 40	2 350	0,18	0,06	2 200	B41821A6478M00*	
63	6,8	5 × 11	4,3	0,12	29	50	B41821A8685M00*
	10	5 × 11	6,3	0,12	20	60	B41821A8106M00*
	22	6,3 × 11	14	0,12	9,0	110	B41821A8226M00*
	33	6,3 × 11	21	0,12	6,0	130	B41821A8336M00*
	47	8 × 11	30	0,12	4,2	180	B41821A8476M00*
	68	10 × 12,5	43	0,12	2,9	230	B41821A8686M00*
	100	10 × 12,5	63	0,12	2,0	290	B41821A8107M00*
	150	10 × 16	95	0,12	1,3	360	B41821A8157M00*
	220	10 × 16	139	0,12	0,90	470	B41821A8227M00*
	270	10 × 20	170	0,12	0,74	500	B41821A8277M00*
	330	10 × 20	208	0,12	0,60	620	B41821A8337M00*
	470	12,5 × 25	296	0,12	0,42	900	B41821A8477M00*
	560	16 × 20	353	0,12	0,36	930	B41821A8567M00*
	680	16 × 25	428	0,12	0,29	1 100	B41821A8687M00*
	1 000	16 × 31,5	630	0,12	0,20	1 500	B41821A8108M00*
1 500	18 × 35	945	0,12	0,13	1 900	B41821A8158M00*	
2 200	18 × 40	1 386	0,14	0,11	2 100	B41821F8228M00*	

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.


**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

$U_R$ VDC	$C_R$ 120 Hz 20 °C $\mu\text{F}$	Case dimensions $d \times l$ mm	$I_{L, \text{max}}$ 5 min 20 °C $\mu\text{A}$	$\tan \delta_{\text{max}}$ 120 Hz 20 °C	$ESR_{\text{max}}$ 120 Hz 20 °C $\Omega$	$I_{\sim R}$ 120 Hz 85 °C mA	Ordering code <sup>1)</sup>
100	0,10	5 × 11	3,0	0,10	1 658	2,0	B41821A9104M00*
	0,22	5 × 11	3,0	0,10	754	4,0	B41821A9224M00*
	0,33	5 × 11	3,0	0,10	502	7,0	B41821A9334M00*
	0,47	5 × 11	3,0	0,10	353	10	B41821A9474M00*
	0,68	5 × 11	3,0	0,10	244	13	B41821A9684M00*
	1,0	5 × 11	3,0	0,10	166	21	B41821A9105M00*
	1,5	5 × 11	3,0	0,10	111	24	B41821A9155M00*
	2,2	5 × 11	3,0	0,10	75	30	B41821A9225M00*
	3,3	5 × 11	3,3	0,10	50	40	B41821A9335M00*
	4,7	5 × 11	4,7	0,10	35	45	B41821A9475M00*
	10	6,3 × 11	10	0,10	17	75	B41821A9106M00*
	22	8 × 11	22	0,10	7,5	130	B41821A9226M00*
	33	10 × 12,5	33	0,10	5,0	190	B41821A9336M00*
	47	10 × 12,5	47	0,10	3,5	230	B41821B9476M00*
	68	10 × 16	68	0,10	2,4	280	B41821A9686M00*
	100	10 × 20	100	0,10	1,7	350	B41821A9107M00*
	150	12,5 × 25	150	0,10	1,1	550	B41821A9157M00*
	220	12,5 × 25	220	0,10	0,75	620	B41821A9227M00*
	270	16 × 25	270	0,10	0,61	770	B41821A9277M00*
330	16 × 25	330	0,10	0,50	800	B41821A9337M00*	
470	16 × 31,5	470	0,10	0,35	900	B41821A9477M00*	
560	16 × 31,5	560	0,10	0,30	1 000	B41821A9567M00*	
680	20 × 30	680	0,10	0,24	1 100	B41821A9687M00*	
1 000	20 × 40	1 000	0,10	0,17	1 300	B41821A9108M00*	

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.


**Technical data and ordering codes**

$U_R$	$C_R$	Case dimensions	$I_{L, \max}$ 5 min	$\tan \delta_{\max}$ 120 Hz	$ESR_{\max}$ 120 Hz	$I_{\sim R}$ 120 Hz	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu F$	$d \times l$ mm	20 °C $\mu A$	20 °C	20 °C $\Omega$	85 °C mA	

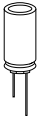
**B43821**

160	0,47	6,3 × 11	17	0,20	705	14	B43821A1474M00*
	0,68	6,3 × 11	18	0,20	488	16	B43821A1684M00*
	1,0	6,3 × 11	20	0,20	332	21	B43821A1105M00*
	1,5	6,3 × 11	22	0,20	221	30	B43821A1155M00*
	2,2	6,3 × 11	26	0,20	151	40	B43821A1225M00*
	3,3	6,3 × 11	31	0,20	100	45	B43821A1335M00*
	4,7	6,3 × 11	38	0,20	71	50	B43821F1475M00*
	6,8	8 × 11	48	0,20	49	62	B43821A1685M00*
	10	8 × 11	63	0,20	33	80	B43821F1106M00*
	22	10 × 16	121	0,20	15	130	B43821A1226M00*
	33	10 × 20	173	0,20	10	175	B43821A1336M00*
	47	12,5 × 25	241	0,20	7,1	285	B43821A1476M00*
	68	12,5 × 25	341	0,20	4,9	330	B43821F1686M00*
	68	16 × 20	341	0,20	4,9	330	B43821A1686M00*
100	16 × 25	495	0,20	3,3	410	B43821A1107M00*	
150	16 × 31,5	735	0,20	2,2	520	B43821A1157M00*	
220	18 × 31,5	1 071	0,20	1,5	660	B43821A1227M00*	
270	18 × 40	1 311	0,20	1,2	700	B43821A1277M00*	
330	20 × 30	1 599	0,20	1,0	750	B43821A1337M00*	
470	22 × 35	2 271	0,20	0,71	1 000	B43821A1477M00*	
560	22 × 40	2 703	0,20	0,59	1 100	B43821A1567M00*	
200	0,47	6,3 × 11	18	0,20	705	14	B43821A2474M00*
	0,68	6,3 × 11	19	0,20	488	16	B43821A2684M00*
	1,0	6,3 × 11	21	0,20	332	21	B43821A2105M00*
	1,5	6,3 × 11	24	0,20	221	30	B43821A2155M00*
	2,2	6,3 × 11	28	0,20	151	40	B43821A2225M00*
	3,3	6,3 × 11	35	0,20	100	45	B43821A2335M00*
	4,7	8 × 11	43	0,20	71	55	B43821A2475M00*
	6,8	10 × 12,5	56	0,20	49	78	B43821A2685M00*
	10	10 × 12,5	75	0,20	33	80	B43821B2106M00*

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.


**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

$U_R$	$C_R$	Case dimensions	$I_{L,max}$	$\tan \delta_{max}$	$ESR_{max}$	$I_{-R}$	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu F$	$d \times l$ mm	5 min 20 °C $\mu A$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	120 Hz 85 °C mA	
200	22	10 × 20	147	0,20	15	140	B43821A2226M00*
	33	10 × 20	213	0,20	10	155	B43821B2336M00*
	47	12,5 × 25	297	0,20	7,1	290	B43821A2476M00*
	68	16 × 20	423	0,20	4,9	330	B43821A2686M00*
	100	16 × 25	615	0,20	3,3	410	B43821A2107M00*
	150	18 × 31,5	915	0,20	2,2	540	B43821A2157M00*
	220	18 × 35	1 335	0,20	1,5	1 000	B43821A2227M00*
	270	20 × 35	1 635	0,20	1,2	1 100	B43821A2277M00*
	330	22 × 35	1 995	0,20	1,0	1 200	B43821A2337M00*
250	0,47	6,3 × 11	19	0,20	705	12	B43821F2474M00*
	0,68	6,3 × 11	20	0,20	488	17	B43821F2684M00*
	1,0	6,3 × 11	23	0,20	332	21	B43821F2105M00*
	1,5	6,3 × 11	26	0,20	221	30	B43821F2155M00*
	2,2	6,3 × 11	32	0,20	151	45	B43821F2225M00*
	3,3	8 × 11	40	0,20	100	50	B43821F2335M00*
	4,7	8 × 11	50	0,20	71	55	B43821K2475M00*
	6,8	10 × 12,5	66	0,20	49	78	B43821F2685M00*
	10	10 × 16	90	0,20	33	105	B43821F2106M00*
	22	10 × 20	180	0,20	15	145	B43821F2226M00*
	33	12,5 × 20	263	0,20	10	230	B43821K2336M00*
	33	12,5 × 25	263	0,20	10	250	B43821F2336M00*
	47	12,5 × 25	368	0,20	7,1	295	B43821K2476M00*
	47	16 × 20	368	0,20	7,1	300	B43821F2476M00*
	68	16 × 25	525	0,20	4,9	330	B43821F2686M00*
	100	16 × 31,5	765	0,20	3,3	520	B43821K2107M00*
	150	18 × 40	1 140	0,20	2,2	850	B43821F2157M00*
	220	18 × 40	1 665	0,20	1,5	1 000	B43821F2227M00*
270	22 × 35	2 040	0,20	1,2	1 100	B43821F2277M00*	
330	22 × 40	2 490	0,20	1,0	1 200	B43821F2337M00*	

Preferred types

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.


**Technical data and ordering codes**

$U_R$	$C_R$	Case dimensions	$I_{L, \max}$	$\tan \delta_{\max}$	$ESR_{\max}$	$I_{\sim R}$	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu\text{F}$	$d \times l$ mm	5 min 20 °C $\mu\text{A}$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	120 Hz 85 °C mA	
350	0,47	6,3 × 11	20	0,20	705	12	B43821A4474M00*
	0,68	6,3 × 11	22	0,20	488	15	B43821A4684M00*
	1,0	6,3 × 11	26	0,20	332	21	B43821A4105M00*
	1,5	8 × 11	31	0,20	221	26	B43821A4155M00*
	2,2	8 × 11	38	0,20	151	30	B43821A4225M00*
	3,3	10 × 12,5	50	0,20	100	45	B43821A4335M00*
	4,7	10 × 12,5	64	0,20	71	55	B43821A4475M00*
	6,8	10 × 16	86	0,20	49	85	B43821A4685M00*
	10	10 × 20	120	0,20	33	95	B43821A4106M00*
	22	12,5 × 25	246	0,20	15	175	B43821A4226M00*
	33	16 × 25	362	0,20	10	240	B43821A4336M00*
	47	16 × 25	509	0,20	7,1	300	B43821F4476M00*
	68	18 × 31,5	729	0,20	4,9	420	B43821A4686M00*
	100	20 × 30	1 065	0,20	3,3	600	B43821A4107M00*
	150	20 × 40	1 590	0,20	2,2	700	B43821A4157M00*
400	2,2	10 × 12,5	41	0,20	151	40	B43821A9225M00*
	3,3	10 × 12,5	55	0,20	100	45	B43821A9335M00*
	4,7	10 × 16	71	0,20	71	60	B43821A9475M00*
	6,8	10 × 16	97	0,20	49	70	B43821A9685M00*
	10	10 × 20	135	0,20	33	95	B43821A9106M00*
	22	12,5 × 25	279	0,20	15	200	B43821F9226M00*
	22	16 × 20	279	0,20	15	180	B43821A9226M00*
	33	16 × 25	411	0,20	10	240	B43821A9336M00*
	47	16 × 31,5	579	0,20	7,1	310	B43821A9476M00*
	68	18 × 35	831	0,20	4,9	420	B43821A9686M00*
	100	20 × 35	1 215	0,20	3,3	600	B43821A9107M00*
	150	20 × 40	1 815	0,20	2,2	700	B43821A9157M00*

1) \* = "0" for bulk version.

For taping versions, other lead configurations and packing information see page 503.

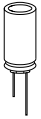

**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

$U_R$	$C_R$ 120 Hz 20 °C μF	Case dimensions $d \times l$ mm	$I_{L, \max}$ 5 min 20 °C μA	$\tan \delta_{\max}$ 120 Hz 20 °C	$ESR_{\max}$ 120 Hz 20 °C Ω	$I_{\sim R}$ 120 Hz 85 °C mA	Ordering code <sup>1)</sup>
450 VDC	2,2	10 × 12,5	45	0,20	151	28	B43821A5225M00*
	3,3	10 × 16	60	0,20	100	44	B43821A5335M00*
	4,7	10 × 20	78	0,20	71	50	B43821A5475M00*
	6,8	10 × 20	107	0,20	49	75	B43821A5685M00*
	10	12,5 × 25	150	0,20	33	90	B43821A5106M00*
	22	16 × 25	312	0,20	15	165	B43821A5226M00*
	33	16 × 31,5	460	0,20	10	220	B43821A5336M00*
	47	18 × 31,5	650	0,20	7,1	265	B43821A5476M00*
	68	18 × 40	933	0,20	4,9	520	B43821A5686M00*
	100	20 × 40	1 365	0,20	3,3	600	B43821A5107M00*

Preferred types

1) \* = "0" for bulk version.

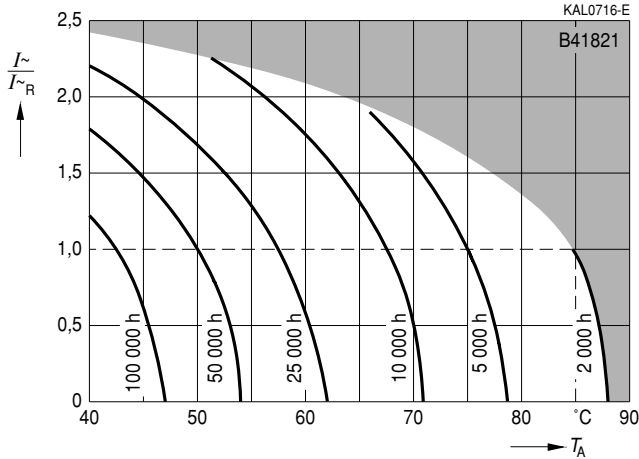
For taping versions, other lead configurations and packing information see page 503.



**Useful life**

depending on ambient temperature  $T_A$  under ripple current operating conditions<sup>1)</sup>

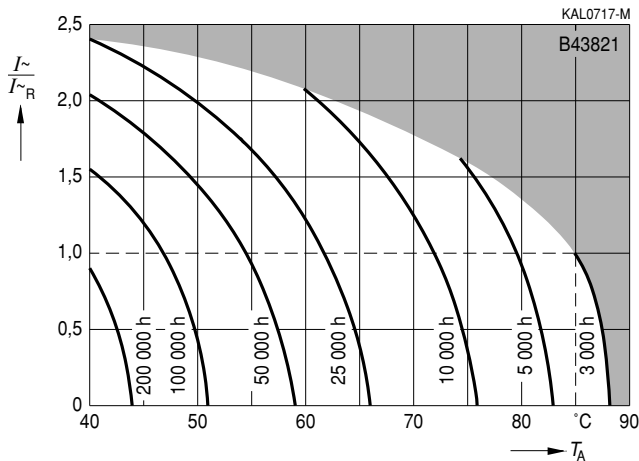
$U_R = 6,3 \dots 100$  VDC



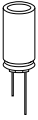
**Useful life**

depending on case temperature  $T_C$  under ripple current operating conditions<sup>1)</sup>

$U_R = 160 \dots 450$  VDC



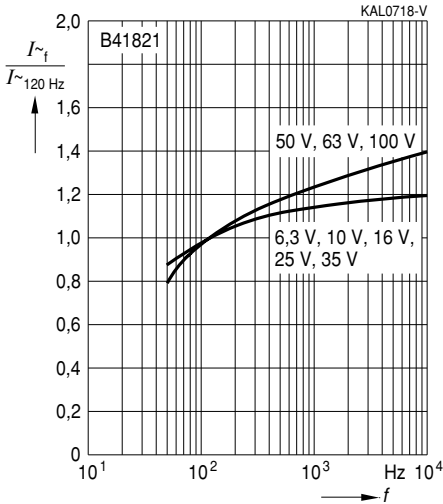
1) Refer to page 40 for an explanation on how to interpret the useful life graphs.



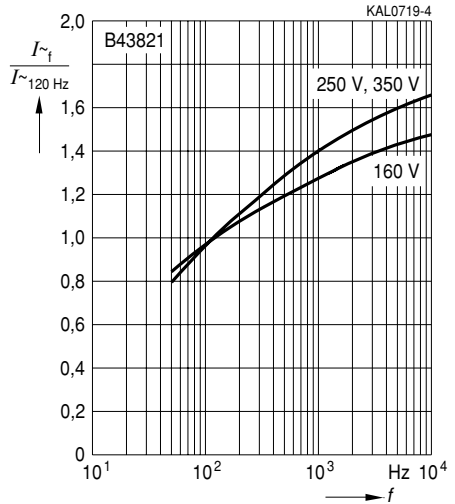
**B41821 / B43821**

**Standard Series – 85 °C**

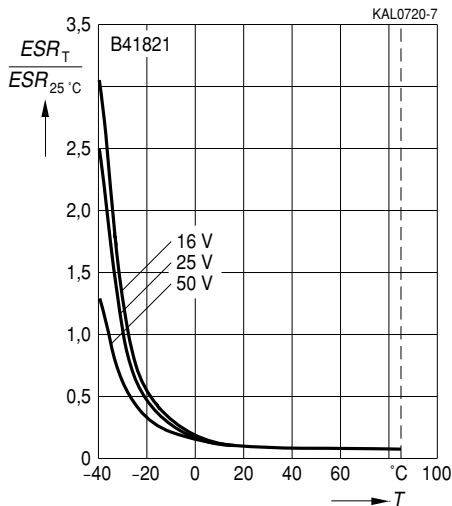
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \leq 100$  VDC



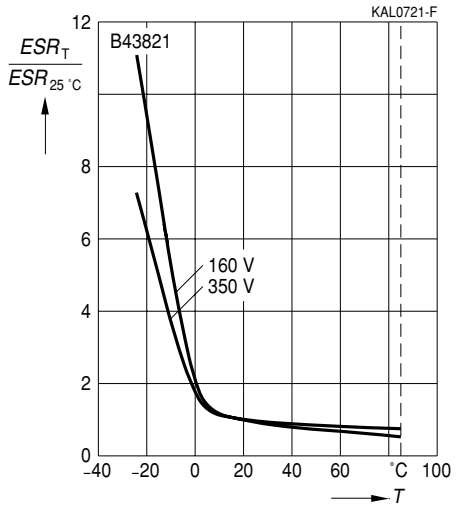
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \geq 160$  VDC



**Equivalent series resistance  $ESR$  at  $f = 120$  Hz versus temperature  $T$**   
 Typical behavior  
 $U_R \leq 100$  VDC



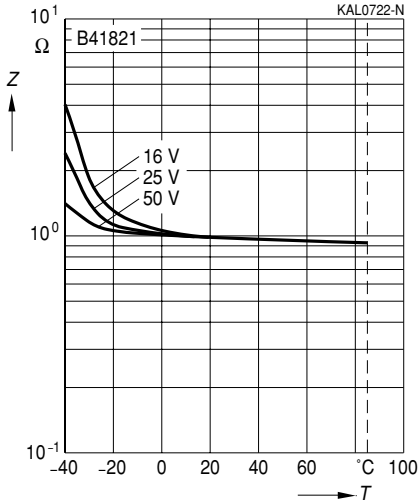
**Equivalent series resistance  $ESR$  at  $f = 120$  Hz versus temperature  $T$**   
 Typical behavior  
 $U_R \geq 160$  VDC



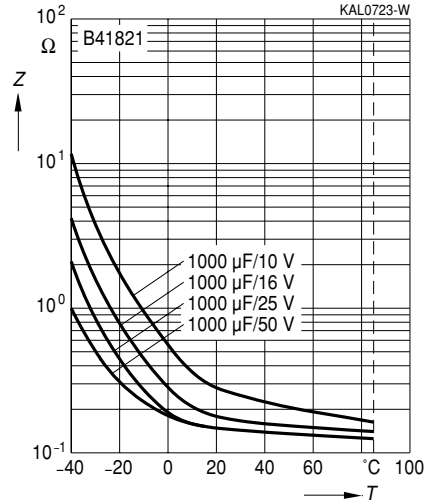




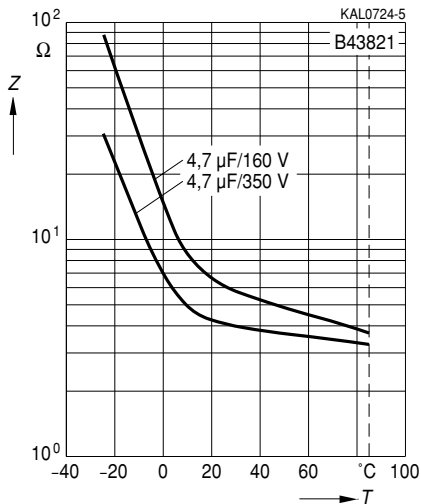
**Impedance  $Z$  at  $f = 120$  Hz**  
 versus temperature  $T$   
 Typical behavior  
 $U_R \leq 100$  VDC



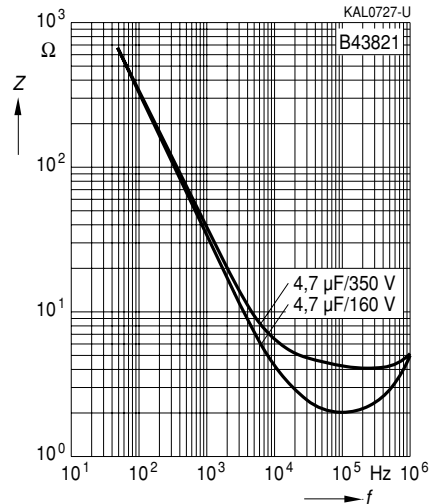
**Impedance  $Z$  at  $f = 10$  kHz**  
 versus temperature  $T$   
 Typical behavior  
 $U_R \leq 100$  VDC



**Impedance  $Z$  at  $f = 10$  kHz**  
 versus temperature  $T$   
 Typical behavior  
 $U_R \geq 160$  VDC



**Impedance  $Z$**   
 versus frequency  $f$   
 Typical behavior at 20 °C  
 $U_R \geq 160$  VDC





B41821 / B43821

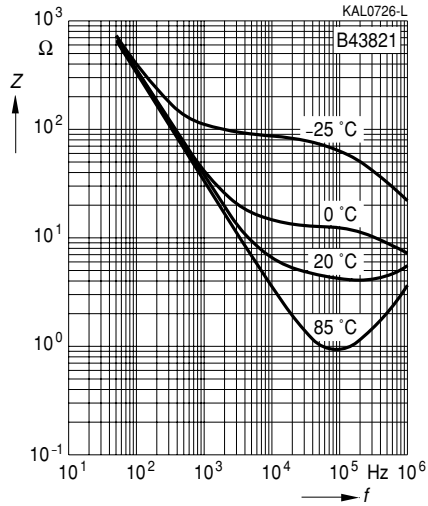
Standard Series – 85 °C

### Impedance $Z$

versus frequency  $f$  and temperature  $T$

for 4,7  $\mu\text{F}/160$  VDC

Typical behavior

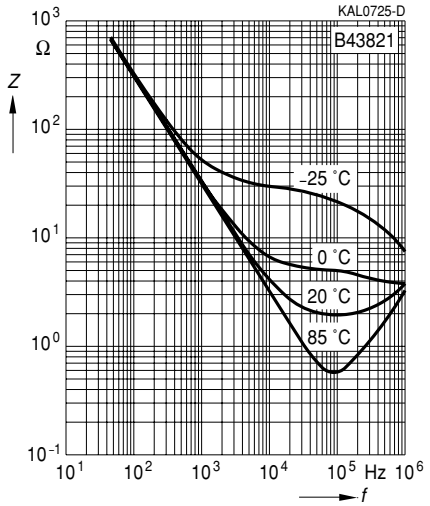


### Impedance $Z$

versus frequency  $f$  and temperature  $T$

for 4,7  $\mu\text{F}/350$  VDC

Typical behavior



**Herausgegeben von EPCOS AG**

**Unternehmenskommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND**

**☎ ++49 89 636 09, FAX (0 89) 636-2 26 89**

© EPCOS AG 2002. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

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**

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

**☎ ++49 89 636 09, FAX (0 89) 636-2 26 89**

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

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.