

General-purpose grade capacitors

Applications

- General-purpose applications in the entertainment industry
- Semi-professional to professional application range
- Timer circuits

Features

- Low leakage current
- Miniaturized dimensions

Construction

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

Delivery mode

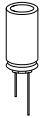
Special terminal configurations and packing:

- Bulk
- Taped, Ammo pack
- Cut

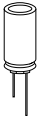
Refer to page 503 for further details and ordering example.



KAL0707-F


Specifications and characteristics in brief

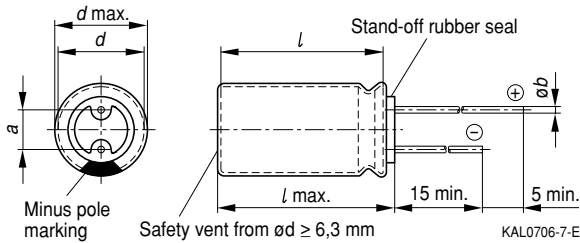
Rated voltage U_R	10 ... 63 VDC	
Surge voltage U_S	$1,15 \cdot U_R$	
Rated capacitance C_R	0,1 ... 100 μ F	
Capacitance tolerance	$\pm 20 \% \triangleq M$	
Useful life 85 °C; U_R ; $I_{\sim R}$ 40 °C; U_R ; $I_{\sim R}$	> 2 000 h > 100 000 h	Requirements: $\Delta C/C \leq \pm 45 \%$ of initial value $\tan \delta \leq 3$ times initial specified limit $I_L \leq$ initial specified limit Failure percentage: $\leq 1 \%$ Failure rate: ≤ 40 fit ($\leq 40 \cdot 10^{-9}/h$) (for definition "fit", refer to chapter "Quality", page 62)
Voltage endurance test 85 °C; U_R	2 000 h	Post test requirements: $\Delta C/C \leq \pm 20 \%$ of initial value $\tan \delta \leq 2$ times initial specified limit $I_L \leq$ initial specified limit
Vibration resistance	To IEC 60068-2-6, 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: 40/085/56 (– 40 °C/+ 85 °C/56 days damp heat test)	
Sectional specification	IEC 60384-4	



B41825

Low Leakage Current – 85 °C

Dimensional drawing



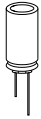
Dimensions and weights

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

Overview of available types

U_R (VDC)	10	16	25	63
C_R (µF)	Case dimensions $d \times l$ (mm)			
0,10				5 × 11
0,22				5 × 11
0,33				5 × 11
0,47				5 × 11
0,68				5 × 11
1,0				5 × 11
2,2				5 × 11
3,3			5 × 11	6,3 × 11
4,7			5 × 11	6,3 × 11
6,8		5 × 11	6,3 × 11	
10		5 × 11	6,3 × 11	8 × 11
15		5 × 11		
22		6,3 × 11	8 × 11	
33		6,3 × 11	8 × 11	
47	6,3 × 11	8 × 11		
100	8 × 11			

Other capacitance and voltage ratings are available upon request.

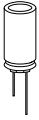

Technical data and ordering codes

U_R VDC	C_R 120 Hz 20 °C μF	Case dimensions $d \times l$ mm	$I_{L, \max}$ 2 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 ¹⁾
10	47	6,3 × 11	0,94	0,20	7,0	66	B41825A3476M00*
	100	8 × 11	2,0	0,20	4,0	110	B41825A3107M00*
16	6,8	5 × 11	0,40	0,17	42	23	B41825A4685M00*
	10	5 × 11	0,40	0,17	28	28	B41825A4106M00*
	15	5 × 11	0,48	0,17	19	34	B41825A4156M00*
	22	6,3 × 11	0,70	0,17	13	49	B41825A4226M00*
	33	6,3 × 11	1,1	0,17	9,0	60	B41825A4336M00*
	47	8 × 11	1,5	0,17	6,0	83	B41825A4476M00*
	25	3,3	5 × 11	0,40	0,15	76	17
25	4,7	5 × 11	0,40	0,15	53	20	B41825A5475M00*
	6,8	6,3 × 11	0,40	0,15	37	29	B41825A5685M00*
	10	6,3 × 11	0,50	0,15	25	35	B41825A5106M00*
	22	8 × 11	1,1	0,15	11	60	B41825A5226M00*
	33	8 × 11	1,7	0,15	8,0	74	B41825A5336M00*
	63	0,10	5 × 11	0,40	0,08	1 326	1,0
0,22		5 × 11	0,40	0,08	603	2,2	B41825A8224M00*
0,33		5 × 11	0,40	0,08	402	3,4	B41825A8334M00*
0,47		5 × 11	0,40	0,08	282	4,8	B41825A8474M00*
0,68		5 × 11	0,40	0,08	195	7,0	B41825A8684M00*
1,0		5 × 11	0,40	0,08	133	8,0	B41825A8105M00*
2,2		5 × 11	0,40	0,08	60	16	B41825A8225M00*
3,3		6,3 × 11	0,42	0,08	40	22	B41825A8335M00*
4,7		6,3 × 11	0,60	0,08	28	30	B41825A8475M00*
10		8 × 11	1,3	0,08	13	50	B41825A8106M00*

Preferred types

1) * = "0" for bulk version.

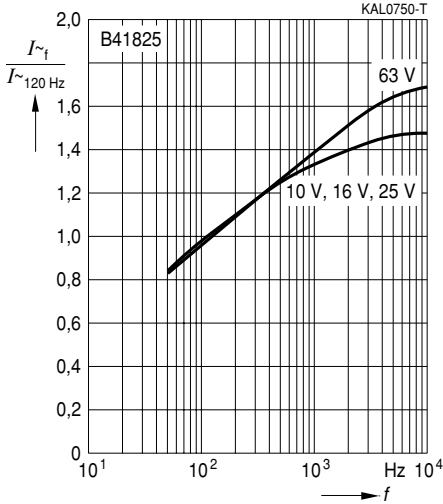
For taping versions, other lead configurations and packing information see page 503.



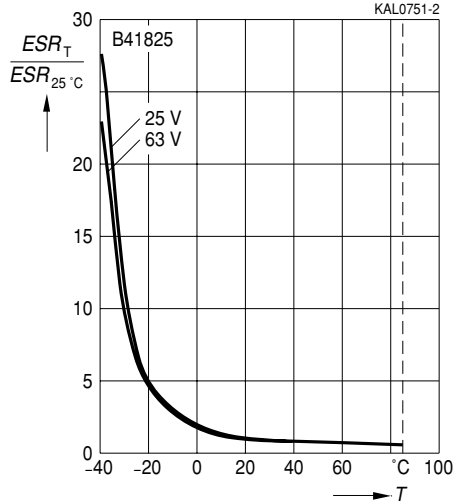
B41825

Low Leakage Current – 85 °C

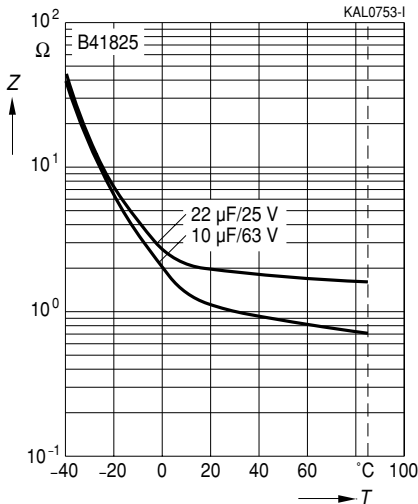
Frequency factor of permissible ripple current I_{\sim} versus frequency f



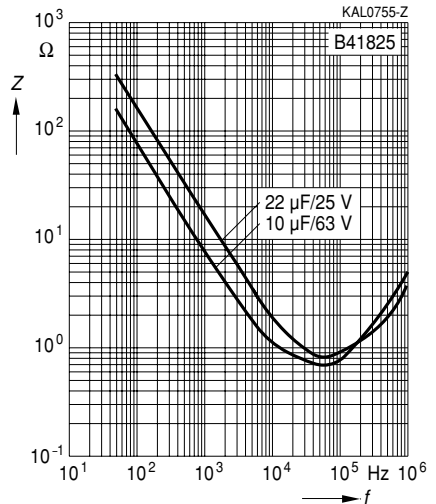
Equivalent series resistance ESR at $f = 120 \text{ Hz}$ versus temperature T
Typical behavior

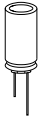


Impedance Z at $f = 10 \text{ kHz}$ versus temperature T
Typical behavior



Impedance Z versus frequency f
Typical behavior at 20 °C

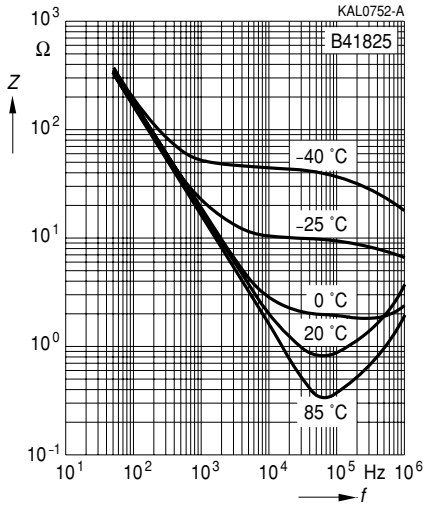



Impedance Z

 versus frequency f and temperature T

 for 22 $\mu\text{F}/25\text{ V}$

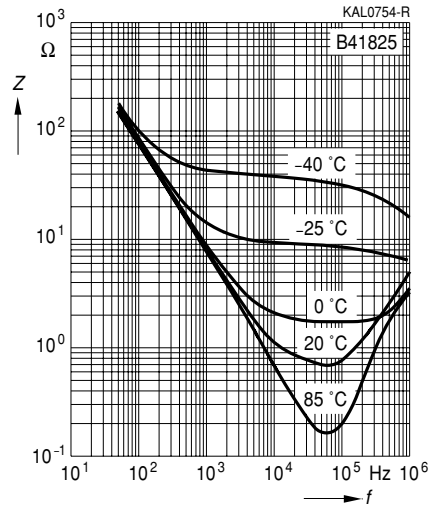
Typical behavior


Impedance Z

 versus frequency f and temperature T

 for 10 $\mu\text{F}/63\text{ V}$

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.