

Single-Ended GP Capacitors**B41852****Low Profile – 105 °C****General-purpose grade capacitors
Ultra-miniaturized dimensions****Applications**

- General-purpose applications,
mainly used in compact electronic equipments

Features

- Ultra-miniaturized dimensions
- Low profile

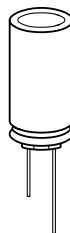
Construction

- Dimension 4 × 5 mm
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on the insulation sleeve
- Stand off rubber seal

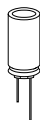
Delivery mode

- Bulk
- Taped, Ammo pack

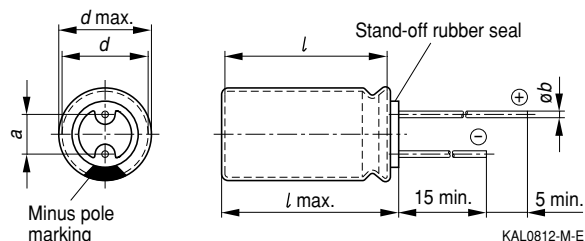
Refer to page 503 for further details and ordering example.



KAL0707-F


B41852
Low Profile – 105 °C
Specifications and characteristics in brief

Rated voltage U_R	10 ... 50 VDC	
Surge voltage U_S	$1,15 \cdot U_R$	
Rated capacitance C_R	0,1 ... 15 μ F	
Capacitance tolerance	$\pm 20 \% \triangleq M$	
Useful life 105 °C; U_R ; I_{-R}	> 1 000 h	Requirements: $\Delta C/C \leq \pm 50 \%$ of initial value $\tan \delta \leq 3$ times initial specified limit $I_L \leq$ initial specified limit Failure percentage: $\leq 3 \%$ Failure rate: ≤ 100 fit ($\leq 100 \cdot 10^{-9}/h$) (for definiton "fit", refer to chapter "Quality", page 62)
Voltage endurance test 105 °C; U_R	1 000 h	Post test requirements: $\Delta C/C \leq \pm 25 \%$ 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 3×2 h	
IEC climatic category	To IEC 60068-1: 40/105/56 (– 40 °C/+ 105 °C/56 days damp heat test)	
Sectional specification	IEC 60384-4	

Dimensional drawing

Dimensions and weight

Dimensions (mm)				Approx. weight g
$d \times l$	$d_{max} \times l_{max}$	$a \pm 0,5$	b	
4 × 5	4,5 × 6	1,5	0,45 ± 0,05	0,3



Overview of available types

U_R (VDC)	10	16	25	35	50
C_R (μF)	Case dimensions $d \times l$ (mm)				
0,1					4 × 5
0,22					4 × 5
0,33					4 × 5
0,47					4 × 5
1					4 × 5
2,2					4 × 5
3,3				4 × 5	4 × 5
4,7			4 × 5	4 × 5	
10		4 × 5			
15	4 × 5				

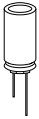
Other capacitance and voltage ratings are available upon request.

Technical data and ordering codes

U_R	C_R	Case dimensions	$I_{L, \max}$	$\tan \delta_{\max}$	$ESR_{\max}$	$I_{\sim R}$	Ordering code ¹⁾
VDC	120 Hz 20 °C μF	$d \times l$ mm	5 min 20 °C μA	120 Hz 20 °C	120 Hz 20 °C Ω	120 Hz 105 °C mA	
10	15	4 × 5	3,0	0,20	18	20	B41852A3156M00*
16	10	4 × 5	3,0	0,17	23	18	B41852A4106M00*
25	4,7	4 × 5	3,0	0,15	42	13	B41852A5475M00*
35	3,3	4 × 5	3,0	0,12	48	11	B41852A7335M00*
	4,7	4 × 5	3,0	0,12	34	14	B41852A7475M00*
50	0,10	4 × 5	3,0	0,10	1 326	1,0	B41852A6104M00*
	0,22	4 × 5	3,0	0,10	603	2,0	B41852A6224M00*
	0,33	4 × 5	3,0	0,10	402	3,0	B41852A6334M00*
	0,47	4 × 5	3,0	0,10	282	3,8	B41852A6474M00*
	1,0	4 × 5	3,0	0,10	133	6,0	B41852A6105M00*
	2,2	4 × 5	3,0	0,10	60	11	B41852A6225M00*
	3,3	4 × 5	3,0	0,10	40	13	B41852A6335M00*

1) * = "0" for bulk version.

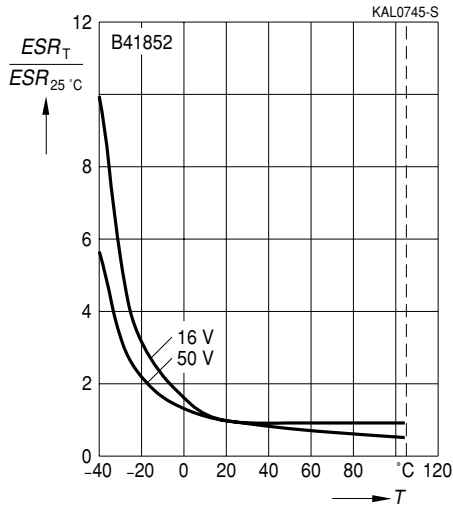
For taping versions, other lead configurations and packing information see page 503



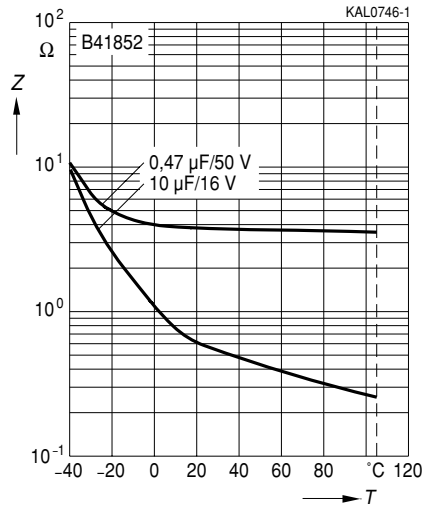
B41852

Low Profile – 105 °C

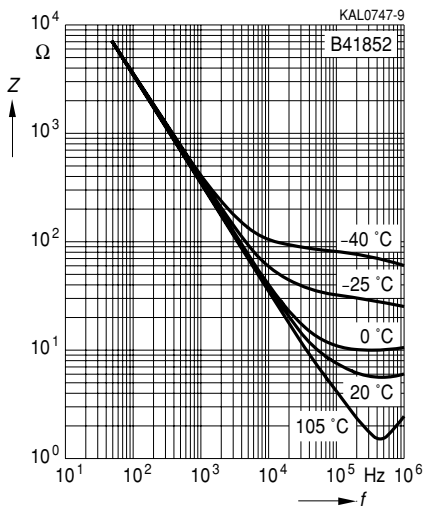
Equivalent series resistance ESR
at $f = 120 \text{ Hz}$ versus temperature T
Typical behavior



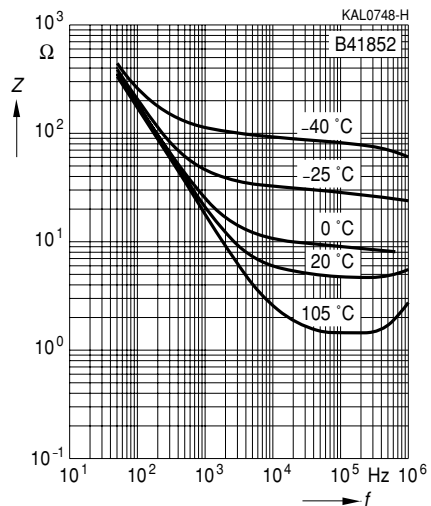
Impedance Z at $f = 10 \text{ kHz}$
versus temperature T
Typical behavior

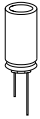


Impedance Z
versus frequency f and temperature T
for 0.47 $\mu\text{F}/50 \text{ VDC}$
Typical behavior



Impedance Z
versus frequency f and temperature T
for 10 $\mu\text{F}/16 \text{ VDC}$
Typical behavior

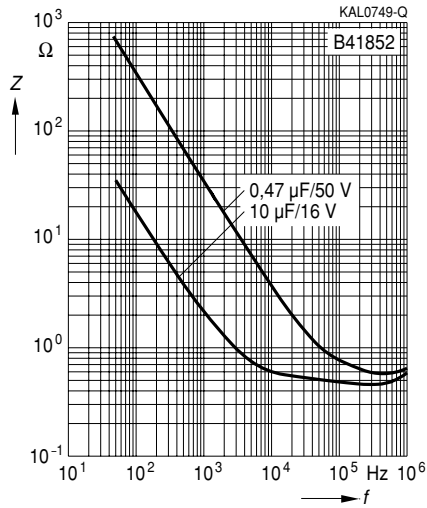




Impedance Z

versus frequency f

Typical behavior at 20 °C



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