

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

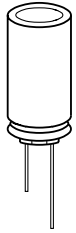
- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on the insulation sleeve
- Stand off rubber seal
- Case with safety vent from diameter 6,3 mm

Delivery mode

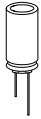
Special terminal configurations and packing:

- Bulk
- Taped, Ammo pack
- Cut

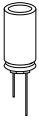
Refer to page 503 for further details and ordering example.



KAL0707-F


Specifications and characteristics in brief

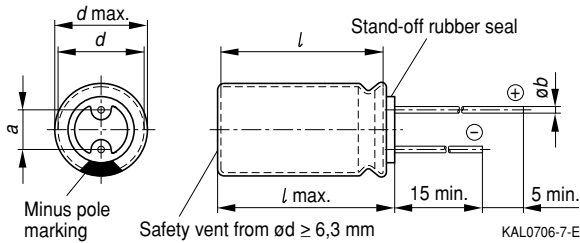
| | | |
|---|--|---|
| Rated voltage U_R | 10 ... 63 VDC | |
| Surge voltage U_S | $1,15 \cdot U_R$ | |
| Rated capacitance C_R | 0,1 ... 100 μ F | |
| Capacitance tolerance | $\pm 20 \% \triangleq M$ | |
| Useful life 85 °C; U_R ; $I_{\sim R}$ 40 °C; U_R ; $I_{\sim R}$ | > 2 000 h > 100 000 h | Requirements: $\Delta C/C \leq \pm 45 \%$ 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.

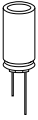

Technical data and ordering codes

| U_R | 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.

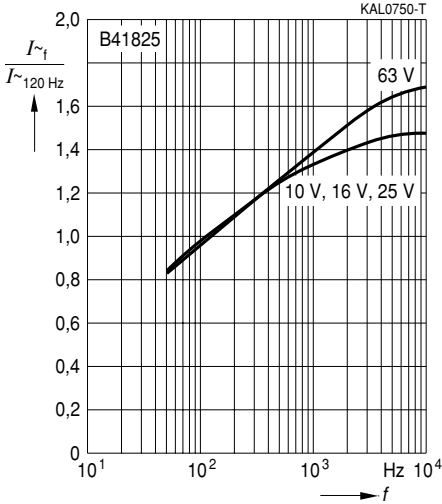
For taping versions, other lead configurations and packing information see page 503.



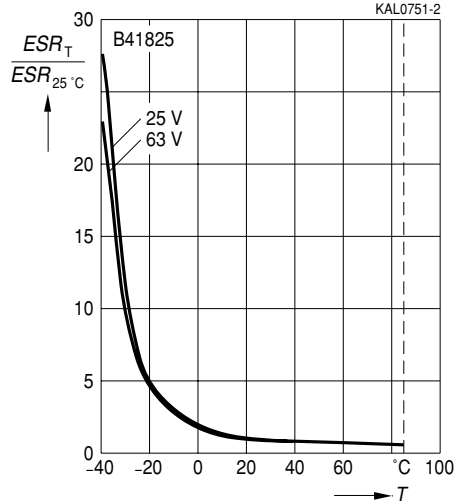
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Low Leakage Current – 85 °C

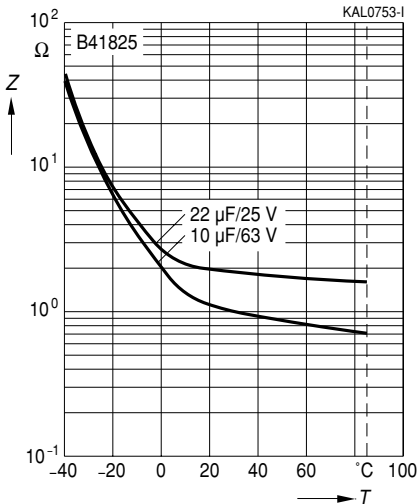
Frequency factor of permissible ripple current I_{\sim} versus frequency f



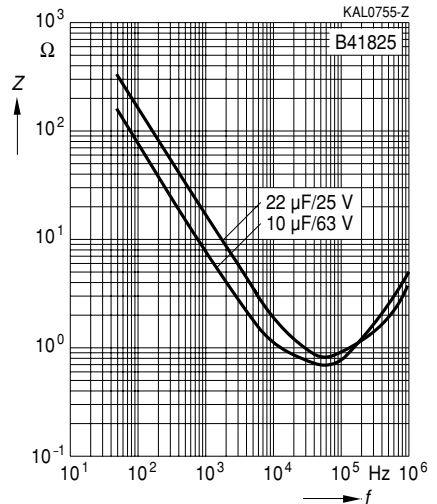
Equivalent series resistance ESR at $f = 120 \text{ Hz}$ versus temperature T
Typical behavior

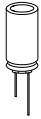


Impedance Z at $f = 10 \text{ kHz}$ versus temperature T
Typical behavior



Impedance Z versus frequency f
Typical behavior at 20 °C

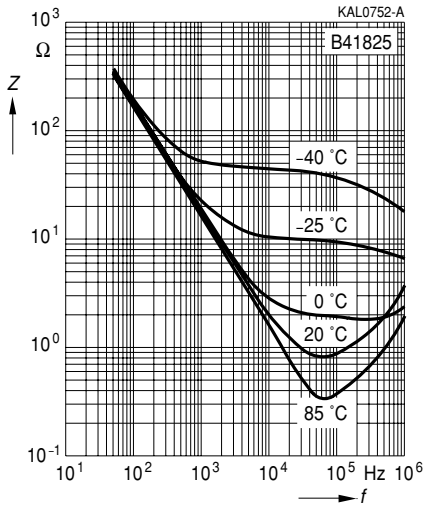



Impedance Z

 versus frequency f and temperature T

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

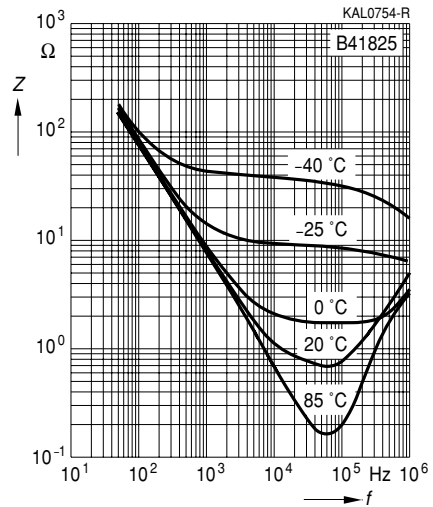
Typical behavior


Impedance Z

 versus frequency f and temperature T

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

Typical behavior



Herausgegeben von EPCOS AG

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