

## 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

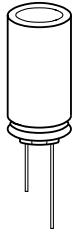
- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on the insulating sleeve
- Stand off rubber seal
- Case with safety vent from diameter 6,3 mm

### Delivery mode

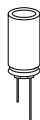
Special terminal configurations and packing:

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

Refer to page 503 for further details and ordering example.



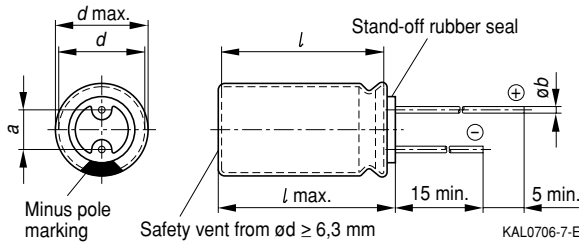
KAL0707-F


**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; $U_R$ ; $I_{\sim R}$           | > 2 000 h                                                                                                                                                                                                                                                                                                | > 3 000 h                |
| 40 °C; $U_R$ ; $1,3 \cdot I_{\sim R}$ | > 100 000 h                                                                                                                                                                                                                                                                                              | —                        |
| 40 °C; $U_R$ ; $1,6 \cdot I_{\sim R}$ | —                                                                                                                                                                                                                                                                                                        | > 100 000 h              |
| Requirements:                         | $\Delta C/C \leq \pm 45 \%$ of initial value<br>$\tan \delta \leq 3$ times initial specified limit<br>$I_L \leq$ initial specified limit<br>Failure percentage: $\leq 1 \%$<br>Failure rate: $\leq 100$ fit ( $\leq 100 \cdot 10^{-9}/h$ )<br>(for definiton "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<br>$\tan \delta \leq 2$ times initial specified limit<br>$I_L \leq$ initial specified limit                                                                                                                                                                 |                          |
| Vibration resistance                  | To IEC 60068-2, test Fc:<br>displacement amplitude 0,75 mm, frequency range 10 ... 2000 Hz,<br>acceleration max.10 g, duration $3 \times 2$ h                                                                                                                                                            |                          |
| IEC climatic category                 | To IEC 60068-1:<br>$U_R \leq 250$ V: 40/085/56 (– 40 °C/+ 85 °C/56 days damp heat test)<br>$U_R \geq 350$ V: 25/085/56 (– 25 °C/+ 85 °C/56 days damp heat test)                                                                                                                                          |                          |
| Sectional specification               | IEC 60384-4                                                                                                                                                                                                                                                                                              |                          |

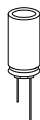


## Dimensional drawing



## 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         | $0,50 \pm 0,05$ | 0,5            |
| 6,3 × 11        | 6,8 × 12                   | 2,5         | $0,50 \pm 0,05$ | 0,7            |
| 8 × 11          | 8,5 × 12                   | 3,5         | $0,60 \pm 0,05$ | 1,0            |
| 10 × 12,5       | 10,5 × 13,5                | 5,0         | $0,60 \pm 0,05$ | 1,6            |
| 10 × 16         | 10,5 × 17                  | 5,0         | $0,60 \pm 0,05$ | 1,9            |
| 10 × 20         | 10,5 × 22                  | 5,0         | $0,60 \pm 0,05$ | 2,6            |
| 12,5 × 20       | 13 × 22                    | 5,0         | $0,60 \pm 0,05$ | 3,6            |
| 12,5 × 25       | 13 × 27                    | 5,0         | $0,60 \pm 0,05$ | 4,5            |
| 16 × 20         | 16,5 × 22                  | 7,5         | $0,80 \pm 0,05$ | 5,5            |
| 16 × 25         | 16,5 × 27                  | 7,5         | $0,80 \pm 0,05$ | 7,5            |
| 16 × 31,5       | 16,5 × 33,5                | 7,5         | $0,80 \pm 0,05$ | 7,8            |
| 18 × 31,5       | 18,5 × 32,5                | 7,5         | $0,80 \pm 0,1$  | 11             |
| 18 × 35         | 18,5 × 36                  | 7,5         | $0,80 \pm 0,1$  | 13             |
| 18 × 40         | 18,5 × 41                  | 7,5         | $0,80 \pm 0,1$  | 16             |
| 20 × 30         | 20,5 × 32                  | 10,0        | $0,80 \pm 0,1$  | 14             |
| 20 × 35         | 20,5 × 37                  | 10,0        | $0,80 \pm 0,1$  | 18             |
| 20 × 40         | 20,5 × 42                  | 10,0        | $0,80 \pm 0,1$  | 20             |
| 22 × 35         | 22,5 × 37                  | 10,0        | $1,0 \pm 0,1$   | 21             |
| 22 × 40         | 22,5 × 42                  | 10,0        | $1,0 \pm 0,1$   | 23             |



# B41821 / B43821

Standard Series – 85 °C

## Overview of available types

### B41821

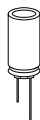
| $U_R$ (VDC) | 6,3                               | 10        | 16        | 25                     | 35        | 50        | 63                 | 100       |
|-------------|-----------------------------------|-----------|-----------|------------------------|-----------|-----------|--------------------|-----------|
| $C_R$ (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<br>16,0 × 20 | 16 × 25   | 18 × 35   | 18 × 40<br>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       |
|-------------|-----------------------------------|-----------|------------------------|-----------|----------------------|-----------|
| $C_R$ (μF)  | 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<br>16 × 20 | 16 × 25   |
| 33          | 10 × 20                           | 10 × 20   | 12,5 × 20<br>12,5 × 25 | 16 × 25   | 16 × 25              | 16 × 31,5 |
| 47          | 12,5 × 25                         | 12,5 × 25 | 12,5 × 25<br>16 × 20   | 16 × 25   | 16 × 31,5            | 18 × 31,5 |
| 68          | 12,5 × 25<br>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<br>20 °C<br>$\mu F$ | $d \times l$<br>mm | 5 min<br>20 °C<br>$\mu A$ | 120 Hz<br>20 °C      | 120 Hz<br>20 °C<br>$\Omega$ | 120 Hz<br>85 °C<br>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*               |
| 10            | 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> |
|               | 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

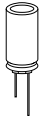
| $U_R$ | $C_R$<br>120 Hz<br>20 °C<br>$\mu F$ | Case<br>dimensions<br>$d \times l$<br>mm | $I_{L, max}$<br>5 min<br>20 °C<br>$\mu A$ | $\tan \delta_{max}$<br>120 Hz<br>20 °C | $ESR_{max}$<br>120 Hz<br>20 °C<br>$\Omega$ | $I_{\sim R}$<br>120 Hz<br>85 °C<br>mA | Ordering code <sup>1)</sup>   |
|-------|-------------------------------------|------------------------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

| $U_R$<br>VDC | $C_R$<br>120 Hz<br>20 °C<br>$\mu F$ | Case<br>dimensions<br>$d \times l$<br>mm | $I_{L, max}$<br>5 min<br>20 °C<br>$\mu A$ | $\tan \delta_{max}$<br>120 Hz<br>20 °C | $ESR_{max}$<br>120 Hz<br>20 °C<br>$\Omega$ | $I_{-R}$<br>120 Hz<br>85 °C<br>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.



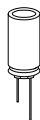
# Technical data and ordering codes

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


**Technical data and ordering codes**

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

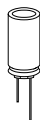
## B43821

|     |      |           |       |      |      |       |                 |
|-----|------|-----------|-------|------|------|-------|-----------------|
| 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* |
| 200 | 470  | 22 × 35   | 2 271 | 0,20 | 0,71 | 1 000 | B43821A1477M00* |
|     | 560  | 22 × 40   | 2 703 | 0,20 | 0,59 | 1 100 | B43821A1567M00* |
|     | 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.


**Technical data and ordering codes**

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

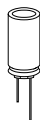


# Technical data and ordering codes

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

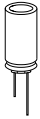

**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

| $U_R$ | $C_R$<br>120 Hz<br>20 °C<br>μF | Case<br>dimensions<br>$d \times l$<br>mm | $I_{L, \max}$<br>5 min<br>20 °C<br>μA | $\tan \delta_{\max}$<br>120 Hz<br>20 °C | $ESR_{\max}$<br>120 Hz<br>20 °C<br>Ω | $I_{\sim R}$<br>120 Hz<br>85 °C<br>mA | Ordering code <sup>1)</sup> |
|-------|--------------------------------|------------------------------------------|---------------------------------------|-----------------------------------------|--------------------------------------|---------------------------------------|-----------------------------|
| VDC   |                                |                                          |                                       |                                         |                                      |                                       |                             |
| 450   | 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.

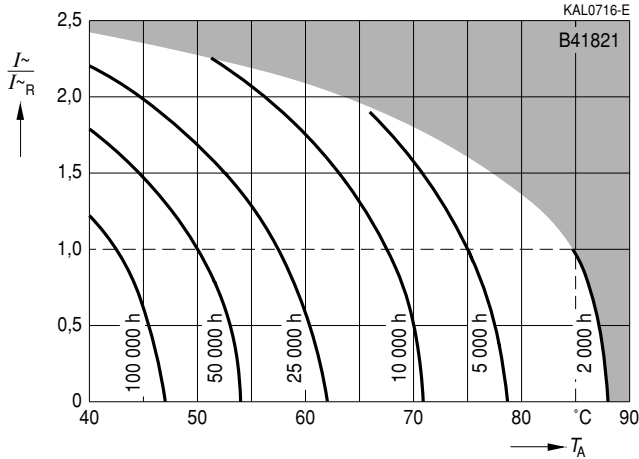
For taping versions, other lead configurations and packing information see page 503.



### Useful life

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

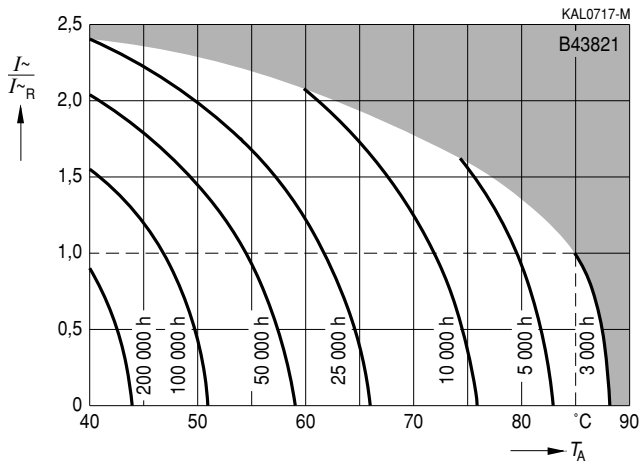
$U_R = 6,3 \dots 100 \text{ VDC}$



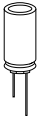
### Useful life

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

$U_R = 160 \dots 450 \text{ VDC}$



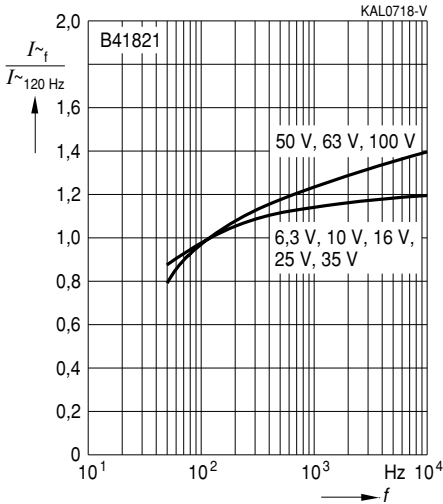
<sup>1)</sup> Refer to page 40 for an explanation on how to interpret the useful life graphs.



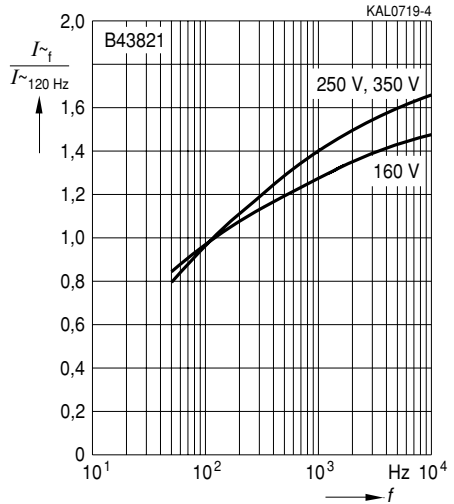
# **B41821 / B43821**

**Standard Series – 85 °C**

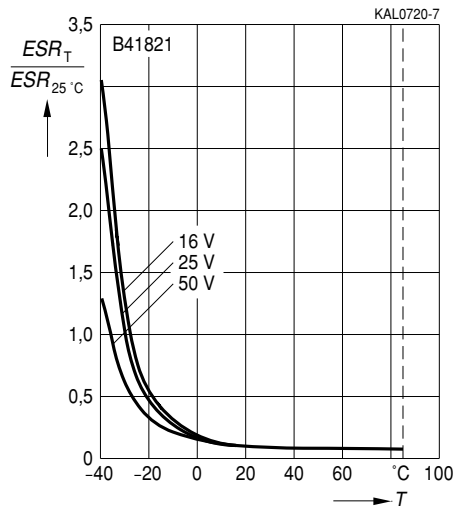
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \leq 100 \text{ VDC}$



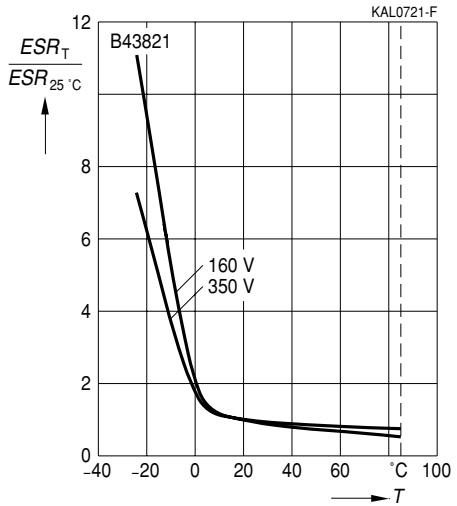
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \geq 160 \text{ VDC}$

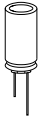


**Equivalent series resistance  $ESR$  at  $f = 120 \text{ Hz}$  versus temperature  $T$**   
 Typical behavior  
 $U_R \leq 100 \text{ VDC}$

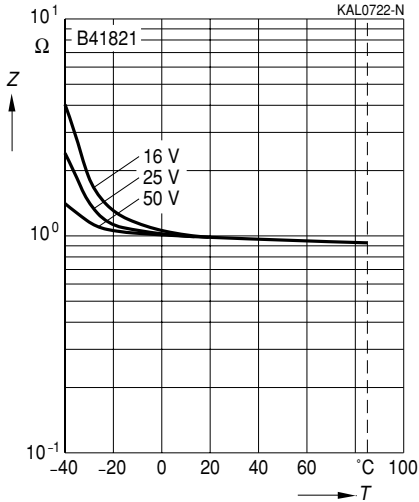


**Equivalent series resistance  $ESR$  at  $f = 120 \text{ Hz}$  versus temperature  $T$**   
 Typical behavior  
 $U_R \geq 160 \text{ VDC}$

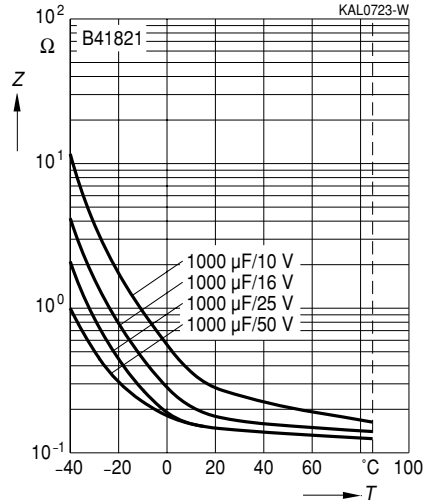




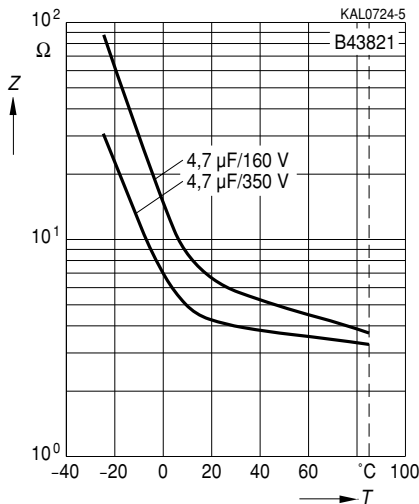
**Impedance  $Z$  at  $f = 120$  Hz**  
versus temperature  $T$   
Typical behavior  
 $U_R \leq 100$  VDC



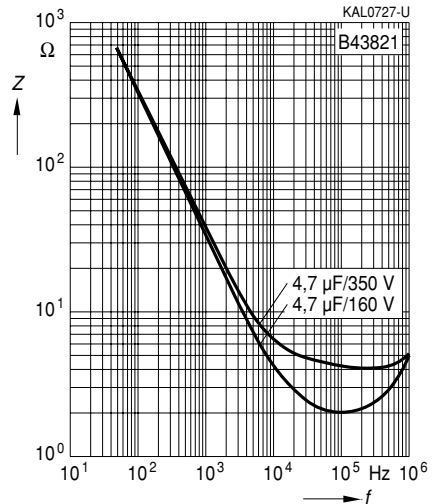
**Impedance  $Z$  at  $f = 10$  kHz**  
versus temperature  $T$   
Typical behavior  
 $U_R \leq 100$  VDC

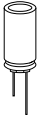


**Impedance  $Z$  at  $f = 10$  kHz**  
versus temperature  $T$   
Typical behavior  
 $U_R \geq 160$  VDC



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





**B41821 / B43821**

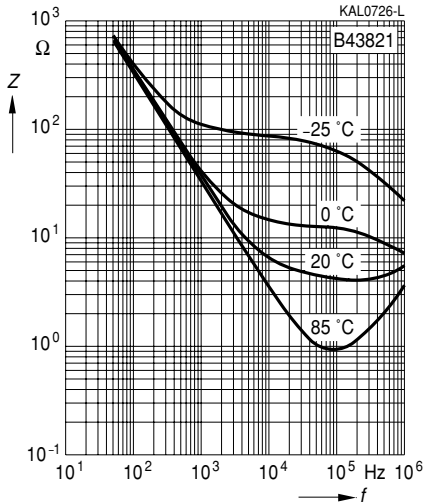
**Standard Series – 85 °C**

### Impedance $Z$

versus frequency  $f$  and temperature  $T$

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

Typical behavior

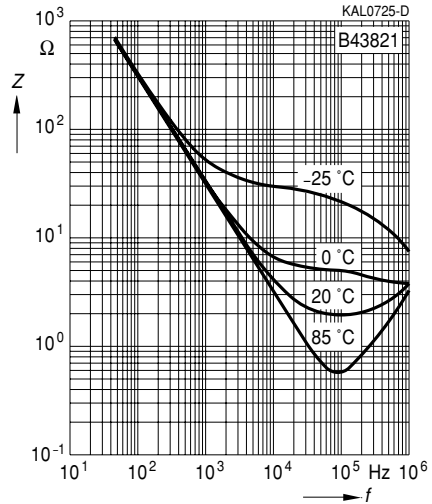


### Impedance $Z$

versus frequency  $f$  and temperature  $T$

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

Typical behavior



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