

## General-purpose grade capacitors

### Applications

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

### Features

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

### Construction

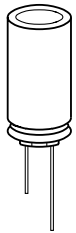
- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on the insulating sleeve
- Stand off rubber seal
- Case with safety vent from diameter 6,3 mm

### Delivery mode

Special terminal configurations and packing:

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

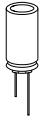
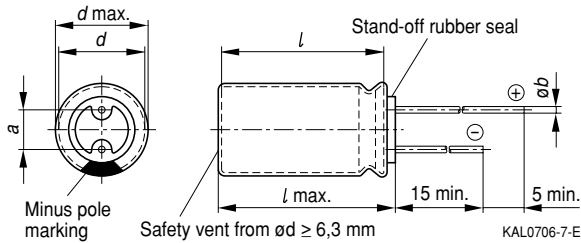
Refer to page 503 for further details and ordering example.



KAL0707-F


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

| Type                              | B41821  | B43821                   |
|-----------------------------------|---|--------------------------|
| Rated voltage $U_R$               | 6,3 ... 100 VDC   | 160 ... 450 VDC          |
| Surge voltage $U_S$               | $1,15 \cdot U_R$  | $1,1 \cdot U_R$          |
| Rated capacitance $C_R$           | 0,1 ... 10 000 $\mu$ F  | 0,47 ... 560 $\mu$ F     |
| Capacitance tolerance             | $\pm 20 \% \triangleq M$  | $\pm 20 \% \triangleq M$ |
| Useful life                       |   |                          |
| 85 °C; $U_R$ ; $I_{-R}$           | > 2 000 h   | > 3 000 h                |
| 40 °C; $U_R$ ; $1,3 \cdot I_{-R}$ | > 100 000 h   | —                        |
| 40 °C; $U_R$ ; $1,6 \cdot I_{-R}$ | —   | > 100 000 h              |
| Requirements:                     | $\Delta C/C \leq \pm 45 \%$ of initial value<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 definition "fit", refer to chapter "Quality", page 62) |                          |
| Voltage endurance test            |   |                          |
| 85 °C; $U_R$                      | 2 000 h   | 2 000 h                  |
| Post test requirements:           | $\Delta C/C \leq \pm 30 \%$ of initial value<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 |
|-----------------|--|-------------|-------------|----------------|
| $d \times l$    | $d_{\text{max}} \times l_{\text{max}}$ | $a \pm 0,5$ | $b$         | g              |
| 5 × 11          | 5,5 × 12                               | 2,0         | 0,50 ± 0,05 | 0,5            |
| 6,3 × 11        | 6,8 × 12                               | 2,5         | 0,50 ± 0,05 | 0,7            |
| 8 × 11          | 8,5 × 12                               | 3,5         | 0,60 ± 0,05 | 1,0            |
| 10 × 12,5       | 10,5 × 13,5                            | 5,0         | 0,60 ± 0,05 | 1,6            |
| 10 × 16         | 10,5 × 17                              | 5,0         | 0,60 ± 0,05 | 1,9            |
| 10 × 20         | 10,5 × 22                              | 5,0         | 0,60 ± 0,05 | 2,6            |
| 12,5 × 20       | 13 × 22                                | 5,0         | 0,60 ± 0,05 | 3,6            |
| 12,5 × 25       | 13 × 27                                | 5,0         | 0,60 ± 0,05 | 4,5            |
| 16 × 20         | 16,5 × 22                              | 7,5         | 0,80 ± 0,05 | 5,5            |
| 16 × 25         | 16,5 × 27                              | 7,5         | 0,80 ± 0,05 | 7,5            |
| 16 × 31,5       | 16,5 × 33,5                            | 7,5         | 0,80 ± 0,05 | 7,8            |
| 18 × 31,5       | 18,5 × 32,5                            | 7,5         | 0,80 ± 0,1  | 11             |
| 18 × 35         | 18,5 × 36                              | 7,5         | 0,80 ± 0,1  | 13             |
| 18 × 40         | 18,5 × 41                              | 7,5         | 0,80 ± 0,1  | 16             |
| 20 × 30         | 20,5 × 32                              | 10,0        | 0,80 ± 0,1  | 14             |
| 20 × 35         | 20,5 × 37                              | 10,0        | 0,80 ± 0,1  | 18             |
| 20 × 40         | 20,5 × 42                              | 10,0        | 0,80 ± 0,1  | 20             |
| 22 × 35         | 22,5 × 37                              | 10,0        | 1,0 ± 0,1   | 21             |
| 22 × 40         | 22,5 × 42                              | 10,0        | 1,0 ± 0,1   | 23             |


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

| $U_R$ (VDC) | 6,3                               | 10        | 16        | 25                     | 35        | 50        | 63                 | 100       |
|-------------|-----------------------------------|-----------|-----------|------------------------|-----------|-----------|--------------------|-----------|
| $C_R$ (μF)  | Case dimensions $d \times l$ (mm) |           |           |                        |           |           |                    |           |
| 0,1         |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 0,22        |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 0,33        |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 0,47        |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 0,68        |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 1           |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 1,5         |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 2,2         |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 3,3         |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 4,7         |                                   |           |           |                        |           |           |                    | 5 × 11    |
| 6,8         |                                   |           |           |                        |           |           | 5 × 11             | 5 × 11    |
| 10          |                                   |           |           |                        |           | 5 × 11    | 5 × 11             | 6,3 × 11  |
| 22          |                                   |           |           |                        |           | 5 × 11    | 6,3 × 11           | 8 × 11    |
| 33          |                                   |           |           |                        | 5 × 11    | 6,3 × 11  | 6,3 × 11           | 10 × 12,5 |
| 47          |                                   |           |           | 5 × 11                 | 5 × 11    | 6,3 × 11  | 8 × 11             | 10 × 12,5 |
| 68          |                                   |           | 5 × 11    | 6,3 × 11               | 6,3 × 11  | 8 × 11    | 10 × 12,5          | 10 × 16   |
| 100         |                                   | 5 × 11    | 5 × 11    | 6,3 × 11               | 6,3 × 11  | 8 × 11    | 10 × 12,5          | 10 × 20   |
| 150         |                                   | 6,3 × 11  | 6,3 × 11  | 8 × 11                 | 8 × 11    | 10 × 12,5 | 10 × 16            | 12,5 × 25 |
| 220         | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11  | 8 × 11                 | 10 × 12,5 | 10 × 12,5 | 10 × 16            | 12,5 × 25 |
| 270         | 6,3 × 11                          | 8 × 11    | 8 × 11    | 10 × 12,5              | 10 × 12,5 | 10 × 16   | 10 × 20            | 16 × 25   |
| 330         | 6,3 × 11                          | 8 × 11    | 8 × 11    | 10 × 12,5              | 10 × 12,5 | 10 × 16   | 10 × 20            | 16 × 25   |
| 470         | 8 × 11                            | 8 × 11    | 10 × 12,5 | 10 × 12,5              | 10 × 16   | 10 × 20   | 12,5 × 25          | 16 × 31,5 |
| 560         | 8 × 11                            | 10 × 12,5 | 10 × 12,5 | 10 × 16                | 10 × 20   | 12,5 × 25 | 16 × 20            | 16 × 31,5 |
| 680         | 10 × 12,5                         | 10 × 12,5 | 10 × 16   | 10 × 20                | 10 × 20   | 12,5 × 25 | 16 × 25            | 20 × 30   |
| 1 000       | 10 × 12,5                         | 10 × 12,5 | 10 × 16   | 10 × 20                | 12,5 × 25 | 16 × 20   | 16 × 31,5          | 20 × 40   |
| 1 500       | 10 × 16                           | 10 × 20   | 12,5 × 25 | 12,5 × 25              | 16 × 25   | 16 × 31,5 | 18 × 35            |           |
| 2 200       | 10 × 20                           | 10 × 20   | 12,5 × 25 | 12,5 × 25<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       |
|------------------|-----------------------------------|-----------|------------------------|-----------|----------------------|-----------|
| $C_R$ ( $\mu$ F) | Case dimensions $d \times l$ (mm) |           |                        |           |                      |           |
| 0,47             | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11               | 6,3 × 11  |                      |           |
| 0,68             | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11               | 6,3 × 11  |                      |           |
| 1                | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11               | 6,3 × 11  |                      |           |
| 1,5              | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11               | 8 × 11    |                      |           |
| 2,2              | 6,3 × 11                          | 6,3 × 11  | 6,3 × 11               | 8 × 11    | 10 × 12,5            | 10 × 12,5 |
| 3,3              | 6,3 × 11                          | 6,3 × 11  | 8 × 11                 | 10 × 12,5 | 10 × 12,5            | 10 × 16   |
| 4,7              | 6,3 × 11                          | 8 × 11    | 8 × 11                 | 10 × 12,5 | 10 × 16              | 10 × 20   |
| 6,8              | 8 × 11                            | 10 × 12,5 | 10 × 12,5              | 10 × 16   | 10 × 16              | 10 × 20   |
| 10               | 8 × 11                            | 10 × 12,5 | 10 × 16                | 10 × 20   | 10 × 20              | 12,5 × 25 |
| 22               | 10 × 16                           | 10 × 20   | 10 × 20                | 12,5 × 25 | 12,5 × 25<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>$\mu\text{F}$ | $d \times l$<br>mm | 5 min<br>20 °C<br>$\mu\text{A}$ | 120 Hz<br>20 °C      | 120 Hz<br>20 °C<br>$\Omega$ | 120 Hz<br>85 °C<br>mA |                             |

**B41821**

|        |           |           |      |      |       |                               |                               |
|--------|-----------|-----------|------|------|-------|-------------------------------|-------------------------------|
| 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**

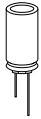
| $U_R$ | $C_R$                            | Case dimensions    | $I_{L, \max}$                   | $\tan \delta_{\max}$ | $ESR_{\max}$                | $I_{\sim R}$          | Ordering code <sup>1)</sup>   |
|-------|----------------------------------|--------------------|---------------------------------|----------------------|-----------------------------|---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

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

Preferred types

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

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



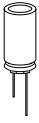

**Technical data and ordering codes**

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

Preferred types

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

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


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

| $U_R$<br>VDC | $C_R$<br>120 Hz<br>20 °C<br>$\mu\text{F}$ | Case<br>dimensions<br>$d \times l$<br>mm | $I_{L, \text{max}}$<br>5 min<br>20 °C<br>$\mu\text{A}$ | $\tan \delta_{\text{max}}$<br>120 Hz<br>20 °C | $ESR_{\text{max}}$<br>120 Hz<br>20 °C<br>$\Omega$ | $I_{\sim R}$<br>120 Hz<br>85 °C<br>mA | Ordering code <sup>1)</sup> |
|--------------|---|--|--|---|---|---------------------------------------|-----------------------------|
| 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    | $I_{L, \max}$<br>5 min | $\tan \delta_{\max}$<br>120 Hz | $ESR_{\max}$<br>120 Hz | $I_{\sim R}$<br>120 Hz | Ordering code <sup>1)</sup> |
|-------|----------------------------|--------------------|------------------------|--------------------------------|------------------------|------------------------|-----------------------------|
| VDC   | 120 Hz<br>20 °C<br>$\mu F$ | $d \times l$<br>mm | 20 °C<br>$\mu A$       | 20 °C                          | 20 °C<br>$\Omega$      | 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* |                 |
| 470 | 22 × 35   | 2 271     | 0,20 | 0,71 | 1 000 | B43821A1477M00* |                 |
| 560 | 22 × 40   | 2 703     | 0,20 | 0,59 | 1 100 | B43821A1567M00* |                 |
| 200 | 0,47      | 6,3 × 11  | 18   | 0,20 | 705   | 14              | B43821A2474M00* |
|     | 0,68      | 6,3 × 11  | 19   | 0,20 | 488   | 16              | B43821A2684M00* |
|     | 1,0       | 6,3 × 11  | 21   | 0,20 | 332   | 21              | B43821A2105M00* |
|     | 1,5       | 6,3 × 11  | 24   | 0,20 | 221   | 30              | B43821A2155M00* |
|     | 2,2       | 6,3 × 11  | 28   | 0,20 | 151   | 40              | B43821A2225M00* |
|     | 3,3       | 6,3 × 11  | 35   | 0,20 | 100   | 45              | B43821A2335M00* |
|     | 4,7       | 8 × 11    | 43   | 0,20 | 71    | 55              | B43821A2475M00* |
|     | 6,8       | 10 × 12,5 | 56   | 0,20 | 49    | 78              | B43821A2685M00* |
|     | 10        | 10 × 12,5 | 75   | 0,20 | 33    | 80              | B43821B2106M00* |

Preferred types

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

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


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

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

Preferred types

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

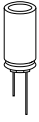
For taping versions, other lead configurations and packing information see page 503.


**Technical data and ordering codes**

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

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

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

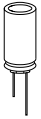

**B41821 / B43821**
**Standard Series – 85 °C**
**Technical data and ordering codes**

| $U_R$      | $C_R$<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> |
|------------|--------------------------------|--|---------------------------------------|---|--------------------------------------|---------------------------------------|-----------------------------|
| 450<br>VDC | 2,2                            | 10 × 12,5                                | 45                                    | 0,20                                    | 151                                  | 28                                    | B43821A5225M00*             |
|            | 3,3                            | 10 × 16                                  | 60                                    | 0,20                                    | 100                                  | 44                                    | B43821A5335M00*             |
|            | 4,7                            | 10 × 20                                  | 78                                    | 0,20                                    | 71                                   | 50                                    | B43821A5475M00*             |
|            | 6,8                            | 10 × 20                                  | 107                                   | 0,20                                    | 49                                   | 75                                    | B43821A5685M00*             |
|            | 10                             | 12,5 × 25                                | 150                                   | 0,20                                    | 33                                   | 90                                    | B43821A5106M00*             |
|            | 22                             | 16 × 25                                  | 312                                   | 0,20                                    | 15                                   | 165                                   | B43821A5226M00*             |
|            | 33                             | 16 × 31,5                                | 460                                   | 0,20                                    | 10                                   | 220                                   | B43821A5336M00*             |
|            | 47                             | 18 × 31,5                                | 650                                   | 0,20                                    | 7,1                                  | 265                                   | B43821A5476M00*             |
|            | 68                             | 18 × 40                                  | 933                                   | 0,20                                    | 4,9                                  | 520                                   | B43821A5686M00*             |
|            | 100                            | 20 × 40                                  | 1 365                                 | 0,20                                    | 3,3                                  | 600                                   | B43821A5107M00*             |

Preferred types

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

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



**Useful life**

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

$U_R = 6,3 \dots 100$  VDC



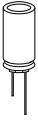
**Useful life**

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

$U_R = 160 \dots 450$  VDC



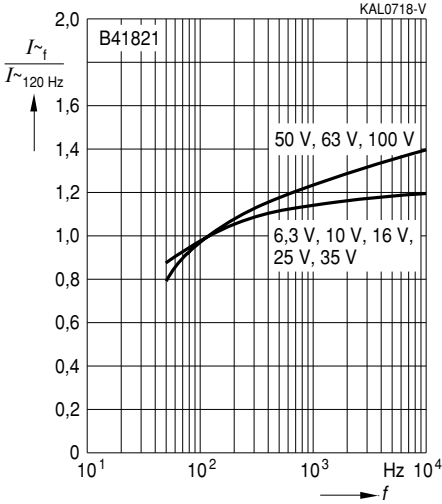
1) Refer to page 40 for an explanation on how to interpret the useful life graphs.



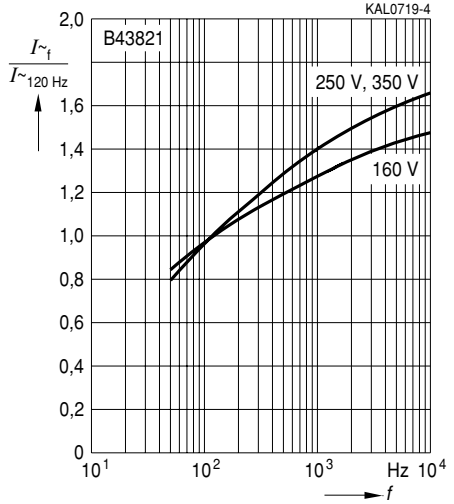
**B41821 / B43821**

**Standard Series – 85 °C**

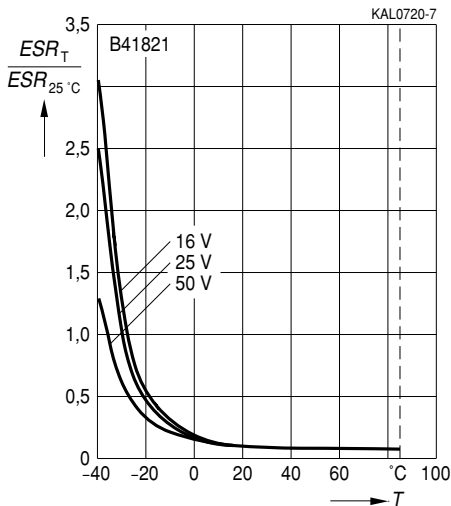
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \leq 100$  VDC



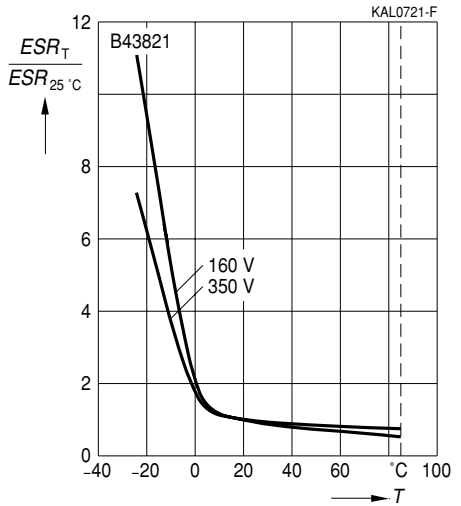
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**   
 $U_R \geq 160$  VDC



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



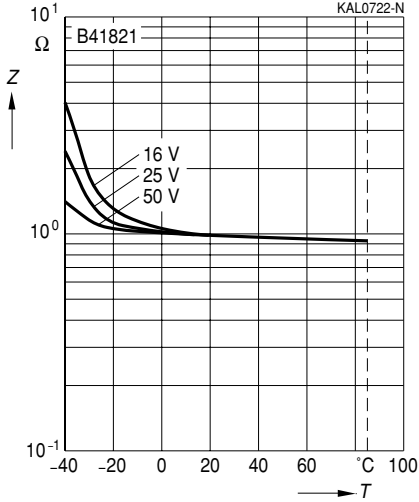
**Equivalent series resistance  $ESR$  at  $f = 120$  Hz versus temperature  $T$**   
 Typical behavior  
 $U_R \geq 160$  VDC



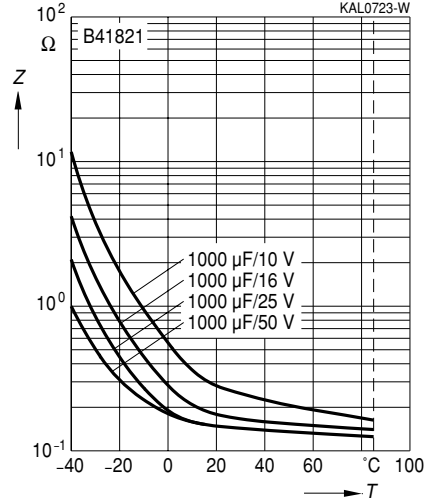




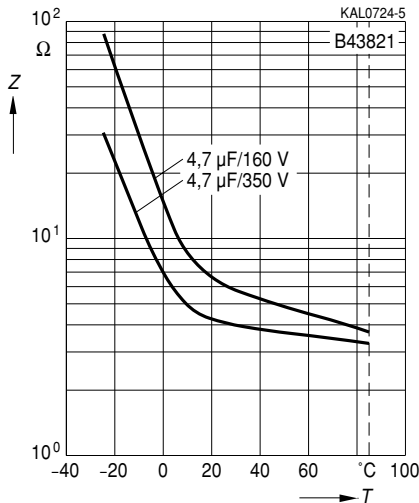
**Impedance  $Z$  at  $f = 120$  Hz**  
 versus temperature  $T$   
 Typical behavior  
 $U_R \leq 100$  VDC



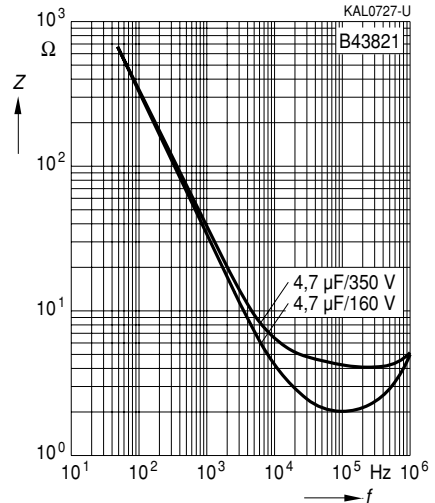
**Impedance  $Z$  at  $f = 10$  kHz**  
 versus temperature  $T$   
 Typical behavior  
 $U_R \leq 100$  VDC



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



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





**B41821 / B43821**

**Standard Series – 85 °C**

**Impedance Z**

versus frequency  $f$  and temperature  $T$   
for 4,7  $\mu\text{F}/160$  VDC  
Typical behavior



**Impedance Z**

versus frequency  $f$  and temperature  $T$   
for 4,7  $\mu\text{F}/350$  VDC  
Typical behavior



**Herausgegeben von EPCOS AG**

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

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

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

Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland. Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

**Published by EPCOS AG**

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

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

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

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.