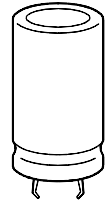


**GP grade**
**For universal application**
**Construction**

- Charge-discharge proof, polar
- Aluminum case, fully insulated
- Snap-in solder pins to hold component in place on PC-board
- Minus pole marking on case surface
- Minus pole not insulated from case



KAL0274-A

**Terminals**

- Standard version with 2 terminals  
2 lengths available: 6,3 and 4,5 mm
- 3 terminals (terminal arrangement ensures correct insertion)

**Features**

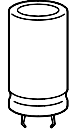
- High ripple current capability
- High  $CU$  product, i. e. extremely compact
- Different case sizes available for each capacitance value

**Applications**

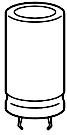
- Switch-mode power supplies in industrial and entertainment electronics

**Specifications and characteristics in brief**

|   | B 41 303  | B 43 303   |
|---|---|--|
| Rated voltage $U_R$                         | 10 ... 100 V-   | 200 ... 550 V-   |
| Surge voltage $U_S$                         | $1,15 \cdot U_R$  | $1,15 \cdot U_R$ (for $U_R \leq 250$ V-)<br>$1,10 \cdot U_R$ (for $U_R \geq 385$ V-) |
| Rated capacitance $C_R$                     | 680 ... 47 000 $\mu$ F  | 15 ... 1 500 $\mu$ F   |
| Capacitance tolerance                       | $\pm 20 \% \triangleq M$  | $\pm 20 \% \triangleq M$   |
| Useful life                                 |   |  |
| 40 °C, $U_R$                                | $> 100\,000$ h ( $1,3 \cdot I_{-R,85^\circ C}$ )  | $> 100\,000$ h ( $1,3 \cdot I_{-R,85^\circ C}$ )                                     |
| 85 °C, $U_R$ ; $I_{-R}$                     | $> 2\,000$ h  | $> 2\,000$ h   |
| Failure percentage                          | $\leq 1 \%$<br>(during useful life)   | $\leq 1 \%$<br>(during useful life)  |
| Failure rate                                | $\leq 100$ fit<br>( $\leq 100 \cdot 10^{-9}/h$ )  | $\leq 100$ fit<br>( $\leq 100 \cdot 10^{-9}/h$ )                                     |
| Voltage endurance test                      | 2 000 h, 85 °C<br>(at $U_R$ )   | 2 000 h, 85 °C<br>(at $U_R$ )  |
| Leakage current $I_{lka}$<br>(5 min, 20 °C) | $I_{lka} \leq 0,3 \mu A \cdot \left( \frac{C_R}{\mu F} \cdot \frac{U_R}{V} \right)^{0,7} + 4 \mu A$ |  |


**B 41 303**
**B 43 303**
**Specifications and characteristics in brief**

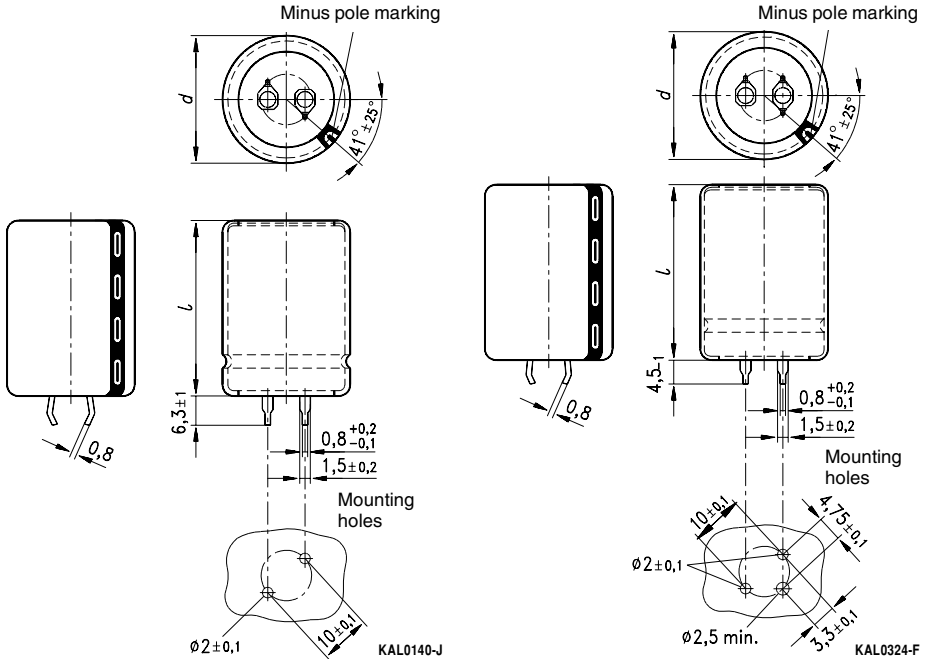
|                           | B 41 303  | B 43 303   |
|---------------------------|---|--|
| Self-inductance $L_{ESL}$ | approx. 20 nH   |  |
| IEC climatic category     | in accordance with IEC 68-1<br>40/085/56 (-40 °C/+85 °C,<br>56 days damp heat test)   | 25/085/56 (-25 °C/+85 °C,<br>56 days damp heat test) |
| Detail specification      | similar to CECC 30 301-806  |  |
| Sectional specification   | IEC 384-4   |  |
| Vibration resistance      | in accordance with IEC 68-2-6, test Fc:<br>displacement amplitude 0,35 mm, frequency range 10 ... 55 Hz,<br>acceleration max. 5 g, duration 3 × 2 h |  |



B 41 303

B 43 303

Dimensional drawings

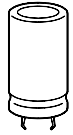


Snap-in terminals, standard (length  $6,3 \pm 1$  mm). Also available in a shorter version with a length of  $4,5 - 1$  mm. For packing mode and ordering example [see next page](#).

Snap-in capacitors are also available with 3 terminals. For packing mode and ordering example [see next page](#).

| Dimensions (mm) |           | Approx. weight (g) | Packing units (pieces) |
|-----------------|-----------|--------------------|------------------------|
| $d + 1$         | $l \pm 2$ |                    |                        |
| 22              | 25        | 9                  | 160                    |
| 22              | 30        | 12                 | 160                    |
| 22              | 35        | 15                 | 160                    |
| 22              | 40        | 18                 | 160                    |
| 22              | 45        | 20                 | 160                    |
| 25              | 25        | 13                 | 130                    |
| 25              | 30        | 17                 | 130                    |
| 25              | 35        | 19                 | 130                    |
| 25              | 40        | 22                 | 130                    |
| 25              | 45        | 25                 | 130                    |

| Dimensions (mm) |           | Approx. weight (g) | Packing units (pieces) |
|-----------------|-----------|--------------------|------------------------|
| $d + 1$         | $l \pm 2$ |                    |                        |
| 30              | 20        | 14                 | 80                     |
| 30              | 25        | 17                 | 80                     |
| 30              | 30        | 23                 | 80                     |
| 30              | 35        | 29                 | 80                     |
| 30              | 40        | 36                 | 80                     |
| 30              | 45        | 41                 | 80                     |
| 30              | 50        | 46                 | 80                     |
| 35              | 20        | 19                 | 60                     |
| 35              | 40        | 44                 | 60                     |
| 35              | 45        | 52                 | 60                     |
| 35              | 50        | 59                 | 60                     |
| 35              | 55        | 66                 | 60                     |



|         |          |
|---------|----------|
| Packing | B 41 303 |
|         | B 43 303 |

### Packing of snap-in capacitors



For ecological reasons the packing is pure cardboard. Components can be withdrawn (in full or in part) in the correct position for insertion.

### Ordering codes

| Snap-in terminals<br>Version    | Identification in 3rd block of ordering code |
|---------------------------------|--|
| Standard terminals (6,3 ± 1) mm | -M   |
| Short terminals (4,5 – 1) mm    | -M7  |
| 3 terminals                     | -M2  |

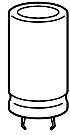
Ordering example:

- B41303-A3109-M7 } snap-in capacitor with short terminals
- B41303-A3109-M2 } snap-in capacitor with 3 terminals


**Overview of available types**
**Type B 41 303**

| $U_R$ (V-)       | 10                                | 16                 | 25                 | 40                 | 63                 | 100                |
|------------------|-----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| $C_R$ ( $\mu$ F) | Case dimensions $d \times l$ (mm) |                    |                    |                    |                    |                    |
| 680              |                                   |                    |                    |                    |                    | 22 × 30<br>25 × 25 |
| 1 000            |                                   |                    |                    |                    |                    | 22 × 35<br>25 × 30 |
| 1 500            |                                   |                    |                    |                    | 22 × 30<br>25 × 25 | 25 × 35<br>30 × 30 |
| 2 200            |                                   |                    |                    |                    | 22 × 35<br>25 × 30 | 30 × 35            |
| 3 300            |                                   |                    |                    | 22 × 30<br>25 × 25 | 25 × 35<br>30 × 30 | 30 × 45            |
| 4 700            |                                   |                    | 22 × 30<br>25 × 25 | 22 × 35<br>25 × 30 | 30 × 35            |                    |
| 6 800            |                                   | 22 × 30<br>25 × 25 | 22 × 35<br>25 × 30 | 25 × 40<br>30 × 30 | 30 × 45            |                    |
| 10 000           | 22 × 30<br>25 × 25                | 22 × 35<br>25 × 30 | 25 × 35<br>30 × 30 | 30 × 35            |                    |                    |
| 15 000           | 22 × 35<br>25 × 30                | 25 × 40<br>30 × 30 | 30 × 35            | 30 × 50            |                    |                    |
| 22 000           | 25 × 40<br>30 × 30                | 30 × 35            | 30 × 45            |                    |                    |                    |
| 33 000           | 30 × 35                           | 30 × 45            |                    |                    |                    |                    |
| 47 000           | 30 × 45                           |                    |                    |                    |                    |                    |

The capacitance and voltage ratings listed above are available in different cases upon request. Other voltage and capacitance ratings are also available upon request.


**Overview of available types**
**Type B 43 303**

| $U_R$ (V-)       | 200                               | 250                | 385                | 400                | 450     | 500     | 550                |
|------------------|-----------------------------------|--------------------|--------------------|--------------------|---------|---------|--------------------|
| $C_R$ ( $\mu$ F) | Case dimensions $d \times l$ (mm) |                    |                    |                    |         |         |                    |
| 15               |                                   |                    |                    |                    |         |         | 22 × 25            |
| 22               |                                   |                    |                    |                    |         | 22 × 25 | 22 × 30            |
| 33               |                                   |                    |                    |                    |         | 22 × 30 | 22 × 40<br>25 × 30 |
| 47               |                                   |                    |                    |                    |         | 22 × 40 | 25 × 40            |
| 68               |                                   |                    | 22 × 25            | 22 × 30            | 22 × 35 | 25 × 40 | 30 × 40            |
| 100              |                                   |                    | 22 × 30<br>25 × 25 | 22 × 35<br>25 × 30 | 22 × 40 | 30 × 40 | 30 × 50            |
| 120              |                                   |                    |                    | 25 × 30            | 25 × 35 |         |                    |
| 150              |                                   | 22 × 25            | 22 × 40<br>25 × 30 | 22 × 40<br>25 × 30 | 30 × 35 | 30 × 50 |                    |
| 180              |                                   |                    |                    |                    | 30 × 35 |         |                    |
| 220              | 22 × 25                           | 22 × 30<br>25 × 25 | 25 × 40<br>30 × 35 | 25 × 40<br>30 × 30 | 30 × 50 |         |                    |
| 270              |                                   |                    |                    | 30 × 35            | 30 × 45 |         |                    |
| 330              | 22 × 30<br>25 × 25                | 22 × 40<br>25 × 35 | 30 × 45            | 30 × 45            | 35 × 40 |         |                    |
| 390              |                                   |                    |                    | 30 × 45<br>35 × 40 | 35 × 45 |         |                    |
| 470              | 22 × 40<br>30 × 25                | 25 × 40<br>30 × 30 | 35 × 40            | 35 × 45            | 35 × 50 |         |                    |
| 560              |                                   |                    | 35 × 45            | 35 × 50            |         |         |                    |
| 680              | 25 × 40<br>30 × 35                | 30 × 40            |                    | 35 × 55            |         |         |                    |
| 1 000            | 30 × 45<br>35 × 40                | 35 × 45            |                    |                    |         |         |                    |
| 1 200            | 35 × 45                           | 35 × 50            |                    |                    |         |         |                    |
| 1 500            | 35 × 50                           |                    |                    |                    |         |         |                    |

The capacitance and voltage ratings listed above are available in different cases upon request. Other voltage and capacitance ratings are also available upon request.



**B 41 303**

**B 43 303**

**Technical data and ordering codes**

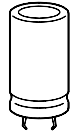
| $U_R$ | $C_R$ | Case dimensions<br>$d \times l$<br>mm | $R_{ESR, max}$<br>100 Hz<br>20 °C<br>mΩ | $Z_{max}$<br>10 kHz<br>20 °C<br>mΩ | $I_{\sim, max}$<br>100 Hz<br>40 °C<br>A | $I_{\sim R}^{1)}$<br>100 Hz<br>85 °C<br>A | Ordering code <sup>2)</sup> |
|-------|-------|---------------------------------------|---|------------------------------------|---|---|-----------------------------|
| V-    | μF    |                                       |   |                                    |   |   | Short code                  |

**B41303-**

|    |        |         |    |    |     |     |          |
|----|--------|---------|----|----|-----|-----|----------|
| 10 | 10 000 | 22 × 30 | 66 | 59 | 4,7 | 1,8 | -A3109-M |
|    | 10 000 | 25 × 25 | 66 | 59 | 4,7 | 1,8 | -J3109-M |
|    | 15 000 | 22 × 35 | 54 | 49 | 5,6 | 2,2 | -B3159-M |
|    | 15 000 | 25 × 30 | 54 | 49 | 5,6 | 2,2 | -J3159-M |
|    | 22 000 | 25 × 40 | 46 | 43 | 6,7 | 2,6 | -A3229-M |
|    | 22 000 | 30 × 30 | 46 | 43 | 6,7 | 2,6 | -J3229-M |
|    | 33 000 | 30 × 35 | 41 | 39 | 7,3 | 2,8 | -B3339-M |
|    | 47 000 | 30 × 45 | 38 | 36 | 8,3 | 3,2 | -B3479-M |
| 16 | 6 800  | 22 × 30 | 71 | 59 | 4,5 | 1,8 | -A4688-M |
|    | 6 800  | 25 × 25 | 71 | 59 | 4,5 | 1,8 | -J4688-M |
|    | 10 000 | 22 × 35 | 58 | 52 | 5,2 | 2,0 | -B4109-M |
|    | 10 000 | 25 × 30 | 58 | 52 | 5,2 | 2,0 | -J4109-M |
|    | 15 000 | 25 × 40 | 49 | 45 | 6,4 | 2,5 | -A4159-M |
|    | 15 000 | 30 × 30 | 49 | 45 | 6,4 | 2,5 | -J4159-M |
|    | 22 000 | 30 × 35 | 43 | 40 | 7,3 | 2,8 | -B4229-M |
|    | 33 000 | 30 × 45 | 39 | 37 | 8,1 | 3,1 | -B4339-M |
| 25 | 4 700  | 22 × 30 | 77 | 67 | 4,4 | 1,7 | -A5478-M |
|    | 4 700  | 25 × 25 | 77 | 67 | 4,4 | 1,7 | -J5478-M |
|    | 6 800  | 22 × 35 | 62 | 56 | 4,9 | 1,9 | -B5688-M |
|    | 6 800  | 25 × 30 | 62 | 56 | 4,9 | 1,9 | -J5688-M |
|    | 10 000 | 25 × 35 | 52 | 48 | 5,5 | 2,3 | -B5109-M |
|    | 10 000 | 30 × 30 | 52 | 48 | 5,5 | 2,3 | -J5109-M |
|    | 15 000 | 30 × 35 | 45 | 42 | 7,0 | 2,7 | -B5159-M |
|    | 22 000 | 30 × 45 | 40 | 38 | 8,1 | 3,1 | -B5229-M |

1) 120 Hz conversion factor of ripple current:  $I_{\sim} (120 \text{ Hz}) = 1,03 \cdot I_{\sim} (100 \text{ Hz})$

2) To obtain the required ordering code, prefix the type number to the short code. E. g.: B41303-A3109-M


**B 41 303**
**B 43 303**
**Technical data and ordering codes**

| $U_R$ | $C_R$ | Case dimensions<br>$d \times l$<br>mm | $R_{ESR, \max}$<br>100 Hz<br>20 °C<br>mΩ | $Z_{\max}$<br>10 kHz<br>20 °C<br>mΩ | $I_{\sim \max}$<br>100 Hz<br>40 °C<br>A | $I_{\sim R}^{1)}$<br>100 Hz<br>85 °C<br>A | Ordering code <sup>2)</sup><br><br>Short code |
|-------|-------|---------------------------------------|--|-------------------------------------|---|---|---|
|-------|-------|---------------------------------------|--|-------------------------------------|---|---|---|

**B41303-**

|     |        |         |     |     |     |     |          |
|-----|--------|---------|-----|-----|-----|-----|----------|
| 40  | 3 300  | 22 × 30 | 77  | 71  | 4,4 | 1,7 | -A7338-M |
|     | 3 300  | 25 × 25 | 77  | 71  | 4,4 | 1,7 | -J7338-M |
|     | 4 700  | 22 × 35 | 66  | 59  | 4,9 | 1,9 | -B7478-M |
|     | 4 700  | 25 × 30 | 66  | 59  | 4,9 | 1,9 | -J7478-M |
|     | 6 800  | 25 × 40 | 55  | 50  | 6,1 | 2,4 | -A7688-M |
|     | 6 800  | 30 × 30 | 55  | 50  | 6,1 | 2,4 | -J7688-M |
|     | 10 000 | 30 × 35 | 47  | 44  | 6,8 | 2,6 | -B7109-M |
|     | 15 000 | 30 × 50 | 41  | 39  | 8,4 | 3,3 | -A7159-M |
| 63  | 1 500  | 22 × 30 | 120 | 100 | 3,5 | 1,4 | -A8158-M |
|     | 1 500  | 25 × 25 | 120 | 100 | 3,5 | 1,4 | -J8158-M |
|     | 2 200  | 22 × 35 | 89  | 77  | 4,2 | 1,6 | -B8228-M |
|     | 2 200  | 25 × 30 | 89  | 77  | 4,2 | 1,6 | -J8228-M |
|     | 3 300  | 25 × 35 | 69  | 62  | 5,2 | 2,0 | -B8338-M |
|     | 3 300  | 30 × 30 | 69  | 62  | 5,2 | 2,0 | -J8338-M |
|     | 4 700  | 30 × 35 | 58  | 52  | 6,2 | 2,4 | -B8478-M |
|     | 6 800  | 30 × 45 | 49  | 45  | 7,3 | 2,8 | -B8688-M |
| 100 | 680    | 22 × 30 | 180 | 150 | 2,9 | 1,1 | -A9687-M |
|     | 680    | 25 × 25 | 180 | 150 | 2,9 | 1,1 | -J9687-M |
|     | 1 000  | 22 × 35 | 130 | 110 | 3,4 | 1,3 | -B9108-M |
|     | 1 000  | 25 × 30 | 130 | 110 | 3,4 | 1,3 | -J9108-M |
|     | 1 500  | 25 × 35 | 97  | 83  | 4,4 | 1,7 | -B9158-M |
|     | 1 500  | 30 × 30 | 97  | 83  | 4,4 | 1,7 | -J9158-M |
|     | 2 200  | 30 × 35 | 75  | 66  | 5,5 | 2,1 | -B9228-M |
|     | 3 300  | 30 × 45 | 60  | 54  | 6,5 | 2,5 | -B9338-M |

1) 120 Hz conversion factor of ripple current:  $I_{\sim} (120 \text{ Hz}) = 1,03 \cdot I_{\sim} (100 \text{ Hz})$

2) To obtain the required ordering code, prefix the type number to the short code. E. g.: B41303-A7338-M





**B 41 303**

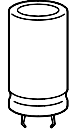
**B 43 303**

**Technical data and ordering codes**

| $U_R$          | $C_R$   | Case dimensions<br>$d \times l$<br>mm | $R_{ESR, max}$<br>100 Hz<br>20 °C<br>mΩ | $Z_{max}$<br>10 kHz<br>20 °C<br>mΩ | $I_{~max}$<br>100 Hz<br>40 °C<br>A | $I_{~R}^{1)}$<br>100 Hz<br>85 °C<br>A | Ordering code <sup>2)</sup> |         |
|----------------|---------|---------------------------------------|---|------------------------------------|------------------------------------|---------------------------------------|-----------------------------|---------|
| V-             | μF      |                                       |   |                                    |                                    |                                       | Short code                  |         |
| <b>B43303-</b> |         |                                       |   |                                    |                                    |                                       |                             |         |
| 200            | 220     | 22 × 25                               | 1250                                    | 960                                | 1,7                                | 0,77                                  | -D227-M                     |         |
|                | 330     | 22 × 30                               | 900                                     | 640                                | 2,2                                | 1,0                                   | -D337-M                     |         |
|                | 330     | 25 × 25                               | 800                                     | 640                                | 2,3                                | 1,0                                   | -M337-M                     |         |
|                | 470     | 22 × 40                               | 560                                     | 450                                | 2,9                                | 1,3                                   | -D477-M                     |         |
|                | 470     | 30 × 25                               | 560                                     | 450                                | 3,0                                | 1,3                                   | -M477-M                     |         |
|                | 680     | 25 × 40                               | 390                                     | 310                                | 3,8                                | 1,7                                   | -D687-M                     |         |
|                | 680     | 30 × 35                               | 390                                     | 310                                | 4,0                                | 1,8                                   | -M687-M                     |         |
|                | 1 000   | 30 × 45                               | 260                                     | 210                                | 5,3                                | 2,4                                   | -D108-M                     |         |
|                | 1 000   | 35 × 40                               | 260                                     | 210                                | 5,6                                | 2,5                                   | -E108-M                     |         |
|                | 1 200   | 35 × 45                               | 220                                     | 180                                | 6,4                                | 2,9                                   | -A128-M                     |         |
| 1 500          | 35 × 50 | 180                                   | 140                                     | 7,4                                | 3,3                                | -A158-M                               |                             |         |
| 250            | 150     | 22 × 25                               | 1400                                    | 1200                               | 1,4                                | 0,63                                  | -C2157-M                    |         |
|                | 220     | 22 × 30                               | 920                                     | 740                                | 1,8                                | 0,82                                  | -C2227-M                    |         |
|                | 220     | 25 × 25                               | 920                                     | 740                                | 1,8                                | 0,84                                  | -L2227-M                    |         |
|                | 330     | 22 × 40                               | 620                                     | 500                                | 2,5                                | 1,1                                   | -C2337-M                    |         |
|                | 330     | 25 × 35                               | 620                                     | 500                                | 2,5                                | 1,2                                   | -L2337-M                    |         |
|                | 470     | 25 × 40                               | 440                                     | 360                                | 3,2                                | 1,4                                   | -C2477-M                    |         |
|                | 470     | 30 × 30                               | 440                                     | 360                                | 3,1                                | 1,4                                   | -L2477-M                    |         |
|                | 680     | 30 × 40                               | 300                                     | 240                                | 4,2                                | 1,9                                   | -C2687-M                    |         |
|                | 1 000   | 35 × 45                               | 220                                     | 170                                | 5,8                                | 2,6                                   | -A2108-M                    |         |
|                | 1 200   | 35 × 50                               | 180                                     | 150                                | 6,6                                | 3,0                                   | -A2128-M                    |         |
|                | 385     | 68                                    | 22 × 25                                 | 2700                               | 2200                               | 1,0                                   | 0,45                        | -H686-M |
|                |         | 100                                   | 22 × 30                                 | 1800                               | 1500                               | 1,3                                   | 0,58                        | -H107-M |
| 100            |         | 25 × 25                               | 1800                                    | 1500                               | 1,3                                | 0,59                                  | -R107-M                     |         |
| 150            |         | 22 × 40                               | 1200                                    | 940                                | 1,7                                | 0,79                                  | -H157-M                     |         |
| 150            |         | 25 × 30                               | 1200                                    | 940                                | 1,7                                | 0,77                                  | -R157-M                     |         |
| 220            |         | 25 × 40                               | 800                                     | 640                                | 2,3                                | 1,0                                   | -H227-M                     |         |
| 220            |         | 30 × 35                               | 800                                     | 640                                | 2,4                                | 1,1                                   | -P227-M                     |         |
| 330            |         | 30 × 45                               | 540                                     | 440                                | 3,2                                | 1,4                                   | -H337-M                     |         |
| 470            |         | 35 × 40                               | 410                                     | 330                                | 4,1                                | 1,8                                   | -E477-M                     |         |
| 560            |         | 35 × 45                               | 340                                     | 280                                | 4,7                                | 2,1                                   | -A567-M                     |         |

1) 120 Hz conversion factor of ripple current:  $I_{~}(120 \text{ Hz}) = 1,03 \cdot I_{~}(100 \text{ Hz})$

2) To obtain the required ordering code, prefix the type number to the short code. E. g.: B43303-D227-M


**B 41 303**
**B 43 303**
**Technical data and ordering codes**

| $U_R$ | $C_R$ | Case dimensions<br>$d \times l$<br>mm | $R_{ESR, \max}$<br>100 Hz<br>20 °C<br>mΩ | $Z_{\max}$<br>10 kHz<br>20 °C<br>mΩ | $I_{\sim \max}$<br>100 Hz<br>40 °C<br>A | $I_{\sim R}^{1)}$<br>100 Hz<br>85 °C<br>A | Ordering code <sup>2)</sup> |
|-------|-------|---------------------------------------|--|-------------------------------------|---|---|-----------------------------|
| V-    | μF    |                                       |  |                                     |   |   | Short code                  |

**B43303-**

|     |     |         |      |      |     |      |          |
|-----|-----|---------|------|------|-----|------|----------|
| 400 | 68  | 22 × 30 | 2400 | 2000 | 1,0 | 0,48 | -G686-M  |
|     | 100 | 22 × 35 | 1600 | 1420 | 1,3 | 0,61 | -G107-M  |
|     | 100 | 25 × 30 | 1600 | 1420 | 1,4 | 0,63 | -Q107-M  |
|     | 120 | 25 × 30 | 1350 | 1180 | 1,5 | 0,69 | -A9127-M |
|     | 150 | 22 × 40 | 1100 | 920  | 1,7 | 0,79 | -A9157-M |
|     | 150 | 25 × 30 | 1100 | 920  | 1,7 | 0,77 | -B9157-M |
|     | 220 | 25 × 40 | 700  | 630  | 2,2 | 1,0  | -B9227-M |
|     | 220 | 30 × 30 | 700  | 630  | 2,2 | 1,0  | -A9227-M |
|     | 270 | 30 × 35 | 580  | 520  | 2,6 | 1,2  | -A9277-M |
|     | 330 | 30 × 45 | 450  | 420  | 3,2 | 1,4  | -G337-M  |
|     | 390 | 30 × 45 | 400  | 360  | 3,5 | 1,6  | -A9397-M |
|     | 390 | 35 × 40 | 440  | 350  | 3,7 | 1,7  | -A397-M  |
|     | 470 | 35 × 45 | 360  | 290  | 4,3 | 1,9  | -F477-M  |
|     | 560 | 35 × 50 | 300  | 240  | 4,9 | 2,2  | -F567-M  |
|     | 680 | 35 × 55 | 250  | 200  | 5,6 | 2,5  | -A687-M  |

1) 120 Hz conversion factor of ripple current:  $I_{\sim} (120 \text{ Hz}) = 1,03 \cdot I_{\sim} (100 \text{ Hz})$

2) To obtain the required ordering code, prefix the type number to the short code. E. g.: B43303-G686-M.



**B 41 303**

**B 43 303**

**Technical data and ordering codes**

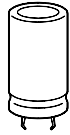
| $U_R$ | $C_R$ | Case dimensions<br>$d \times l$<br>mm | $R_{ESR, max}$<br>100 Hz<br>20 °C<br>mΩ | $Z_{max}$<br>10 kHz<br>20 °C<br>mΩ | $I_{~max}$<br>100 Hz<br>40 °C<br>A | $I_{~R}^{1)}$<br>100 Hz<br>85 °C<br>A | Ordering code <sup>2)</sup> |
|-------|-------|---------------------------------------|---|------------------------------------|------------------------------------|---------------------------------------|-----------------------------|
| V-    | μF    |                                       |   |                                    |                                    |                                       | Short code                  |

**B43303-**

|     |         |         |       |       |      |          |          |
|-----|---------|---------|-------|-------|------|----------|----------|
| 450 | 68      | 22 × 35 | 3700  | 3080  | 1,1  | 0,50     | -A5686-M |
|     | 100     | 22 × 40 | 2500  | 2080  | 1,4  | 0,64     | -B5107-M |
|     | 120     | 25 × 35 | 2100  | 1730  | 1,6  | 0,72     | -A5127-M |
|     | 150     | 30 × 35 | 1700  | 1420  | 1,9  | 0,88     | -A5157-M |
|     | 180     | 30 × 35 | 1370  | 1180  | 2,1  | 0,97     | -A5187-M |
|     | 220     | 30 × 50 | 1200  | 1000  | 2,7  | 1,2      | -A5227-M |
|     | 270     | 30 × 45 | 910   | 790   | 2,9  | 1,3      | -A5277-M |
|     | 330     | 35 × 40 | 840   | 670   | 3,4  | 1,5      | -A5337-M |
|     | 390     | 35 × 45 | 710   | 570   | 3,9  | 1,8      | -A5397-M |
| 470 | 35 × 50 | 590     | 470   | 4,5   | 2,0  | -A5477-M |          |
| 500 | 22      | 22 × 25 | 9200  | 7700  | 0,52 | 0,24     | -A6226-M |
|     | 33      | 22 × 30 | 6200  | 5200  | 0,68 | 0,31     | -A6336-M |
|     | 47      | 22 × 40 | 4400  | 3700  | 0,91 | 0,41     | -A6476-M |
|     | 68      | 25 × 40 | 3000  | 2500  | 1,2  | 0,54     | -A6686-M |
|     | 100     | 30 × 40 | 2100  | 1800  | 1,6  | 0,71     | -A6107-M |
|     | 150     | 30 × 50 | 1400  | 1200  | 2,1  | 0,94     | -A6157-M |
| 550 | 15      | 22 × 25 | 14000 | 12000 | 0,43 | 0,20     | -A7156-M |
|     | 22      | 22 × 30 | 9200  | 7700  | 0,56 | 0,25     | -A7226-M |
|     | 33      | 22 × 40 | 6200  | 5200  | 0,76 | 0,35     | -A7336-M |
|     | 33      | 25 × 30 | 6200  | 5200  | 0,74 | 0,34     | -J7336-M |
|     | 47      | 25 × 40 | 4400  | 3700  | 0,98 | 0,45     | -A7476-M |
|     | 68      | 30 × 40 | 3000  | 2500  | 1,3  | 0,58     | -A7686-M |
|     | 100     | 30 × 50 | 2100  | 1800  | 1,7  | 0,77     | -A7107-M |

1) 120 Hz conversion factor of ripple current:  $I_{~}(120 \text{ Hz}) = 1,03 \cdot I_{~}(100 \text{ Hz})$

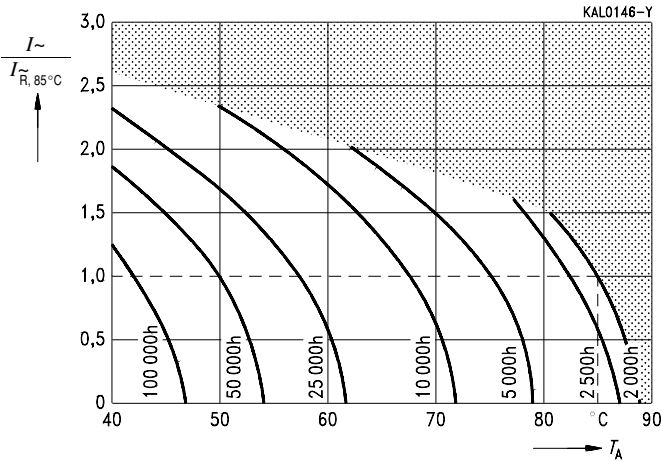
2) To obtain the required ordering code, prefix the type number to the short code. E. g.: B43303-A5686-M



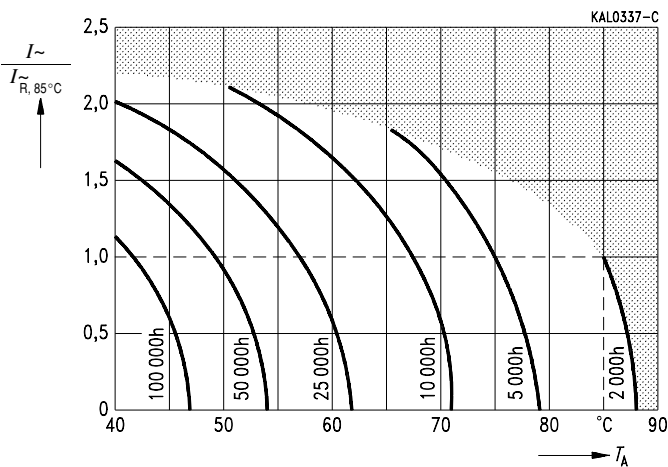
**Useful life**

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

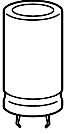
$U_R \leq 100 \text{ V}$ –



$U_R \geq 200 \text{ V}$ –



1) Refer to [page 31](#) for an explanation on how to interpret the useful life graphs.

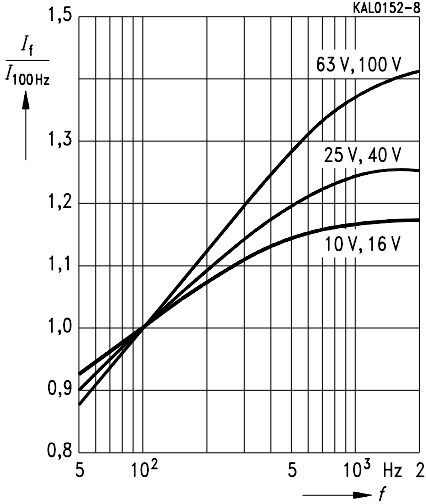


B 41 303

B 43 303

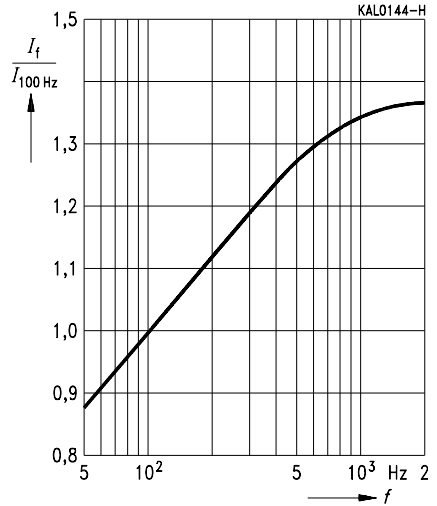
**Permissible ripple current  $I_{\sim}$**   
versus frequency  $f$

$U_R \leq 100 \text{ V-}$



**Permissible ripple current  $I_{\sim}$**   
versus frequency  $f$

$U_R \geq 200 \text{ V-}$

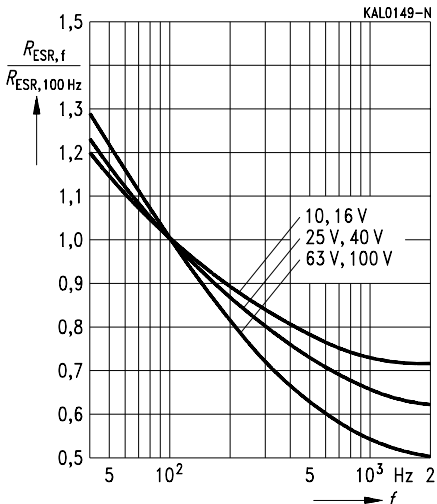


**Equivalent series resistance  $R_{ESR}$**

versus frequency  $f$

Typical behavior

$U_R \leq 100 \text{ V-}$

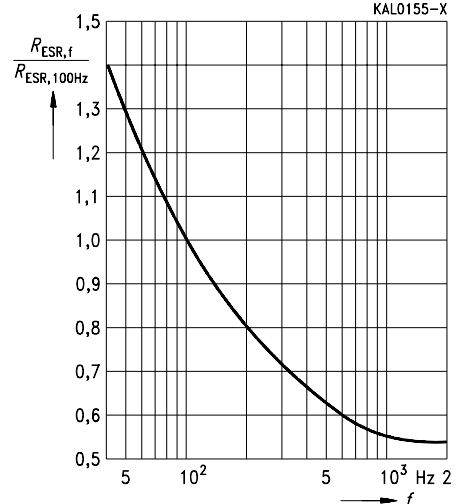


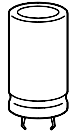
**Equivalent series resistance  $R_{ESR}$**

versus frequency  $f$

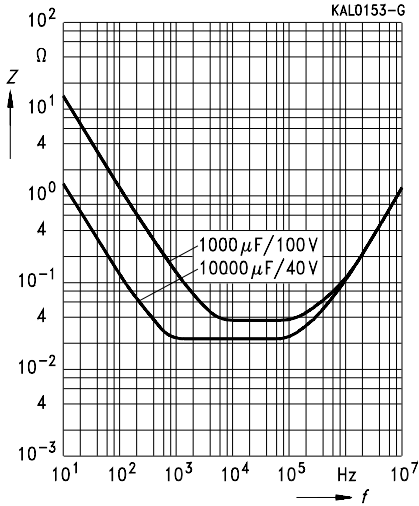
Typical behavior

$U_R \geq 200 \text{ V-}$

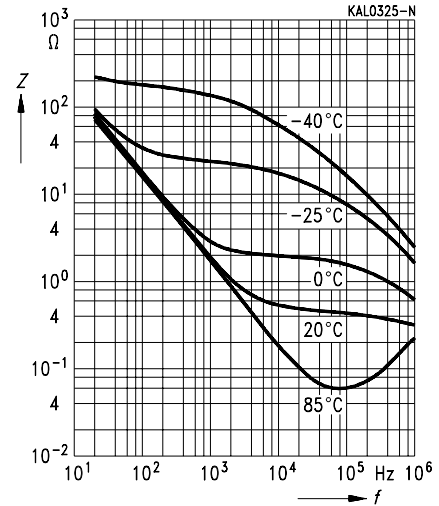




**Impedance  $Z$**   
 versus frequency  $f$   
 Typical behavior  
 $U_R \leq 100 \text{ V}$



**Impedance  $Z$**   
 versus frequency  $f$   
 and temperature  $T$  for  $100 \mu\text{F}/400 \text{ V}$ –  
 Typical behavior



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