

Construction

- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on case surface
- Stand off rubber seal

Features

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

Applications

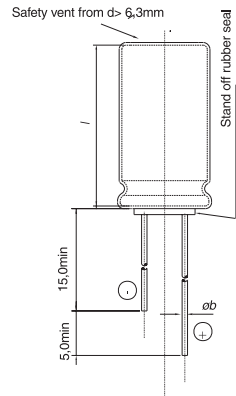
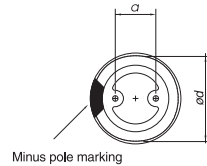
- GP (general-purpose) applications in the entertainment industry
- Semi-professional to professional application range
- For filtering, coupling and pulse circuits

Delivery Mode (packing)

Special terminals configurations and packing

- Bulk
- Ammo
- Cut
- Kinked
- PAPR

Refer to page 20 for information and examples on how to order them.


Specifications and characteristics in brief

| Type | | B41821 | B43821 |
|--------------------------|-------|---|---|
| Rated voltage | U_N | 6,3 ... 100 Vdc | 160 ... 450 Vdc |
| Surge voltage | U_S | $1,15 \cdot U_N$ | $1,1 \cdot U_N$ |
| Rated capacitance | C_N | 0,1 ... 10000 μ F | 0,47 ... 560 μ F |
| Capacitance tolerance | | $\pm 20 \% (M)$ | $\pm 20 \% (M)$ |
| Useful life | hrs | | |
| 40°C, U_N | | > 100 000 h (1,3 · $I_{aC_N, 85^\circ C}$) | > 100 000 h (1,6 · $I_{aC_N, 85^\circ C}$) |
| 85°C, U_N ; I_{aC_N} | | > 2 000 h | > 3 000 h |
| Fraction failure | % | $\leq 1 \%$ (during the useful life) | $\leq 1 \%$ (during the useful life) |


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| | | | |
|---|-------------|---|--|
| Failure rate | fit | ≤ 100 fit ($\leq 100 \cdot 10^{-9}/h$) | ≤ 100 fit ($\leq 100 \cdot 10^{-9}/h$) |
| Voltage endurance test | hrs | 2000 h, 85°C (at U_N) Evaluation criteria: $\Delta C/C \leq \pm 30\%$ of initial measured value $\tan \delta \leq 2$ times initial specified value $I_L \leq$ initial specified value | |
| Climatic category in accordance with IEC 68-1 | UCT/ LCT | 40/085/56 | 40/085/56 - $U_N \leq 250V$ |
| | | | 25/085/56 - $U_N \geq 350V$ |
| Standards | | IEC 384-4 DIN 45 910 part 12 | |
| Vibration resistance | | in accordance with IEC 68-2-6, test Fc: displacement amplitude 0,75 mm, frequency range 10 ... 2000 Hz, acceleration max. 10 g, duration 3 x 2 h | |


Overview of available types
Type B41821

| U_N (Vdc) | 6,3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|-------------|---|---------|-------------------|-------------------|-----------------|---------|---------|---------------|
| C_N (µF) | Case dimensions $\varnothing d \times l$ (mm) | | | | | | | |
| 0,1 | | | | | | | | 5x11 |
| 0,22 | | | | | | | | 5x11 |
| 0,33 | | | | | | | | 5x11 |
| 0,47 | | | | | | | | 5x11 |
| 0,68 | | | | | | | | 5x11 |
| 1 | | | | | | | | 5x11 |
| 1,5 | | | | | | | | 5x11 |
| 2,2 | | | | | | | | 5x11 |
| 3,3 | | | | | | | | 5x11 |
| 4,7 | | | | | | | | 5x11 |
| 6,8 | | | | | | | 5x11 | 5x11 |
| 10 | | | | | | 5x11 | 5x11 | 6,3x11 |
| 22 | | | | | | 5x11 | 6,3x11 | 8x11 |
| 33 | | | | | 5x11 | 6,3x11 | 6,3x11 | 10x12,5 |
| 47 | | | | 5x11 | 5x11 | 6,3x11 | 8x11 | 10x12,5/10x16 |
| 68 | | | 5x11 | 6,3x11 | 6,3x11 | 8x11 | 10x12,5 | 10x16 |
| 100 | | 5x11 | 5x11 | 6,3x11 | 6,3x11/ 8x11 | 8x11 | 10x12,5 | 10x20 |
| 150 | | 6,3x11 | 6,3x11 | 8x11 | 8x11 | 10x12,5 | 10x16 | 12,5x25 |
| 220 | 6,3x11 | 6,3x11 | 6,3x11/ 8x11 | 8x11 | 8x11 | 10x12,5 | 10x16 | 12,5x25 |
| 270 | 6,3x11 | 8x11 | 8x11 | 10x12,5 | 10x12,5 | 10x16 | 10x20 | 16x25 |
| 330 | 6,3x11 | 8x11 | 8x11 | 10x12,5 | 10x12,5 | 10x16 | 10x20 | 16x25 |
| 470 | 8x11 | 8x11 | 10x12,5 | 10x12,5/ 10x16 | 10x16 | 10x20 | 12,5x25 | 16x31,5 |
| 560 | 8x11 | 10x12,5 | 10x12,5 | 10x16 | 10x20 | 12,5x25 | 16x20 | 16x31,5 |
| 680 | 10x12,5 | 10x12,5 | 10x16 | 10x20 | 10x20 | 12,5x25 | 16x25 | 20x30 |
| 1 000 | 10x12,5 | 10x12,5 | 10x16 | 10x20 | 12,5x25 | 16x20 | 16x31,5 | 20x40 |
| 1 500 | 10x16 | 10x20 | 12,5x25 | 12,5x25 | 16x25 | 16x31,5 | 18x35 | |
| 2 200 | 10x20 | 10x20 | 12,5x25/ 16x15 | 16x20 | 16x31,5 | 18x35 | 20x40 | |
| 3 300 | 10x20 | 12,5x25 | 16x25 | 16x25 | 18x31 | 18x40 | | |
| 4 700 | 12,5x25 | 16x20 | 16x25 | 16x31,5 | 18x40 | 22x40 | | |
| 6 800 | | 16x31,5 | 18x31 | 18x40 | 22x40 | | | |
| 8 200 | | 18x31 | 20x30 | 22x35 | | | | |
| 10 000 | | 18x35 | 20x35 | 22x40 | | | | |


Type B43821

| U_N (Vdc) | 160 | 200 | 250 | 350 | 400 | 450 |
|-------------|---|---------------|---------|---------|---------|---------|
| C_N (μF) | Case dimensions $\varnothing d \times l$ (mm) | | | | | |
| 0,47 | 6,3x11 | 6,3x11 | 6,3x11 | 6,3x11 | | |
| 0,68 | 6,3x11 | 6,3x11 | 6,3x11 | 6,3x11 | | |
| 1 | 6,3x11 | 6,3x11 | 6,3x11 | 6,3x11 | | |
| 1,5 | 6,3x11 | 6,3x11 | 6,3x11 | 8x11 | | |
| 2,2 | 6,3x11 | 6,3x11 | 6,3x11 | 8x11 | 10x12,5 | 10x12,5 |
| 3,3 | 6,3x11 | 6,3x11 | 8x11 | 10x12,5 | 10x12,5 | 10x16 |
| 4,7 | 8x11 | 8x11 | 10x12,5 | 10x12,5 | 10x16 | 10x20 |
| 6,8 | 8x11 | 10x12,5 | 10x12,5 | 10x16 | 10x16 | 10x20 |
| 10 | 10x12,5 | 10x12,5/10x16 | 10x16 | 10x20 | 10x20 | 12,5x25 |
| 22 | 10x16 | 10x20 | 10x20 | 12,5x25 | 16x20 | 16x25 |
| 33 | 10x20 | 10x20/12,5x25 | 12,5x25 | 16x25 | 16x25 | 16x31,5 |
| 47 | 12,5x25 | 12,5x25 | 16x20 | 16x31,5 | 16x31,5 | 18x31 |
| 68 | 16x20 | 16x20 | 16x25 | 18x31 | 18x31 | 18x35 |
| 100 | 16x25 | 16x25 | 18x35 | 20x30 | 20x35 | 20x40 |
| 150 | 16x31,5 | 18x31 | 18x40 | 20x40 | 20x40 | |
| 220 | 18x31 | 18x35 | 18x40 | | | |
| 270 | 18x40 | 20x35 | 22x35 | | | |
| 330 | 20x30 | 22x35 | 22x40 | | | |
| 470 | 22x35 | | | | | |
| 560 | 22x40 | | | | | |

Other capacitance and voltage ratings are available upon request.


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C
Technical data and ordering codes

| U_N | C_N | Case Dimensions | $I_{L,max}$ | $\tan\delta_{max}$ | ESR_{max} | $I_{ac,max}$ | Ordering code |
|-----------------|---------------------------|--------------------------------|--------------------------|--------------------|----------------------------|----------------------------|---------------|
| Vdc | 120 Hz 20°C μF | $\varnothing d \times l$ mm | 5 min 20°C μA | 120 Hz 20°C | 120 Hz 20°C Ω | 120 Hz 85°C mA (rms) | Short Code |
| B41821 – | | | | | | | |
| 6,3 | 220 | 6,3 x 11 | 14 | 0,28 | 2,1 | 200 | -A2227-M |
| | 270 | 6,3 x 11 | 17 | 0,28 | 1,7 | 210 | -A2277-M |
| | 330 | 6,3 x 11 | 21 | 0,28 | 1,4 | 270 | -A2337-M |
| | 470 | 8 x 11 | 30 | 0,28 | 1,0 | 330 | -A2477-M |
| | 560 | 8 x 11 | 35 | 0,28 | 0,83 | 360 | -A2567-M |
| | 680 | 10 x 12,5 | 43 | 0,28 | 0,68 | 460 | -A2687-M |
| | 1 000 | 10 x 12,5 | 63 | 0,28 | 0,46 | 560 | -A2108-M |
| | 1 500 | 10 x 16 | 95 | 0,28 | 0,31 | 750 | -A2158-M |
| | 2 200 | 10 x 20 | 139 | 0,30 | 0,23 | 950 | -A2228-M |
| | 3 300 | 10 x 20 | 208 | 0,32 | 0,16 | 1050 | -A2338-M* |
| 4 700 | 12,5 x 25 | 296 | 0,34 | 0,12 | 1300 | -A2478-M* | |
| 10 | 100 | 5 x 11 | 10 | 0,24 | 4,0 | 120 | -A3107-M |
| | 150 | 6,3 x 11 | 15 | 0,24 | 2,7 | 160 | -A3157-M |
| | 220 | 6,3 x 11 | 22 | 0,24 | 1,8 | 220 | -A3227-M |
| | 270 | 8 x 11 | 27 | 0,24 | 1,5 | 255 | -A3277-M |
| | 330 | 8 x 11 | 33 | 0,24 | 1,2 | 280 | -A3337-M |
| | 470 | 8 x 11 | 47 | 0,24 | 0,85 | 400 | -A3477-M |
| | 560 | 10 x 12,5 | 56 | 0,24 | 0,71 | 420 | -A3567-M |
| | 680 | 10 x 12,5 | 68 | 0,24 | 0,59 | 460 | -A3687-M |
| | 1 000 | 10 x 12,5 | 100 | 0,24 | 0,40 | 640 | -A3108-M |
| | 1 500 | 10 x 20 | 150 | 0,24 | 0,27 | 730 | -A3158-M |
| | 2 200 | 10 x 20 | 220 | 0,26 | 0,20 | 1040 | -A3228-M |
| | 3 300 | 12,5 x 25 | 330 | 0,28 | 0,14 | 1450 | -A3338-M |
| | 4 700 | 16 x 20 | 470 | 0,30 | 0,11 | 1540 | -A3478-M* |
| | 6 800 | 16 x 31,5 | 680 | 0,34 | 0,08 | 2110 | -A3688-M* |
| | 8 200 | 18 x 31 | 820 | 0,38 | 0,08 | 2310 | -A3828-M* |
| 10 000 | 18 x 35 | 1000 | 0,42 | 0,07 | 2520 | -A3109-M* | |

* Type available under consult.

■ Preferred types.


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | I_{Lmax} | $\tan\delta_{max}$ | ESR_{max} | I_{acmax} | Ordering code |
|--------|---------------------------|--------------------------------|--------------------------|--------------------|----------------------------|----------------------------|---------------|
| Vdc | 120 Hz 20°C μF | $\varnothing d \times l$ mm | 5 min 20°C μA | 120 Hz 20°C | 120 Hz 20°C Ω | 120 Hz 85°C mA (rms) | Short Code |
| 16 | 68 | 5 x 11 | 11 | 0,20 | 4,9 | 90 | -A4686-M |
| | 100 | 5 x 11 | 16 | 0,20 | 3,3 | 160 | -A4107-M |
| | 150 | 6,3 x 11 | 24 | 0,20 | 2,2 | 165 | -A4157-M |
| | 220 | 6,3 x 11 | 35 | 0,20 | 1,5 | 220 | -F4227-M |
| | 220 | 8 x 11 | 35 | 0,20 | 1,5 | 260 | -A4227-M |
| | 270 | 8 x 11 | 43 | 0,20 | 1,2 | 270 | -A4277-M |
| | 330 | 8 x 11 | 53 | 0,20 | 1,0 | 350 | -A4337-M |
| | 470 | 10 x 12,5 | 75 | 0,20 | 0,71 | 500 | -A4477-M |
| | 560 | 10 x 12,5 | 90 | 0,20 | 0,59 | 450 | -A4567-M |
| | 680 | 10 x 16 | 109 | 0,20 | 0,49 | 540 | -A4687-M |
| | 1 000 | 10 x 16 | 160 | 0,20 | 0,33 | 720 | -A4108-M |
| | 1 500 | 12,5 x 25 | 240 | 0,20 | 0,22 | 970 | -A4158-M |
| | 2 200 | 16 x 15 | 352 | 0,22 | 0,17 | 900 | -F4228-M |
| | 2 200 | 12,5 x 25 | 352 | 0,22 | 0,17 | 1200 | -A4228-M |
| | 3 300 | 16 x 25 | 528 | 0,24 | 0,12 | 1580 | -A4338-M* |
| | 4 700 | 16 x 25 | 752 | 0,26 | 0,09 | 1700 | -A4478-M* |
| | 6 800 | 18 x 31 | 1088 | 0,30 | 0,07 | 2250 | -A4688-M* |
| 8 200 | 20 x 30 | 1312 | 0,34 | 0,07 | 2500 | -A4828-M* | |
| 10 000 | 20 x 35 | 1600 | 0,38 | 0,06 | 2600 | -A4109-M* | |
| 25 | 47 | 5 x 11 | 12 | 0,16 | 5,6 | 100 | -A5476-M |
| | 68 | 6,3 x 11 | 17 | 0,16 | 3,9 | 125 | -A5686-M |
| | 100 | 6,3 x 11 | 25 | 0,16 | 2,7 | 180 | -A5107-M |
| | 150 | 8 x 11 | 38 | 0,16 | 1,8 | 200 | -A5157-M |
| | 220 | 8 x 11 | 55 | 0,16 | 1,2 | 290 | -A5227-M |
| | 270 | 10 x 12,5 | 68 | 0,16 | 1,0 | 320 | -A5277-M |
| | 330 | 10 x 12,5 | 83 | 0,16 | 0,80 | 400 | -A5337-M |
| | 470 | 10 x 16 | 118 | 0,16 | 0,56 | 580 | -A5477-M |
| | 470 | 10 x 12,5 | 118 | 0,16 | 0,56 | 520 | -B5477-M |
| | 560 | 10 x 16 | 140 | 0,16 | 0,47 | 590 | -A5567-M |
| | 680 | 10 x 20 | 170 | 0,16 | 0,39 | 660 | -A5687-M |
| | 1 000 | 10 x 20 | 250 | 0,16 | 0,27 | 850 | -A5108-M |
| | 1 500 | 12,5 x 25 | 375 | 0,16 | 0,18 | 1100 | -A5158-M |
| | 2 200 | 16 x 20 | 550 | 0,18 | 0,14 | 1300 | -A5228-M |
| | 3 300 | 16 x 25 | 825 | 0,20 | 0,10 | 1750 | -A5338-M |
| | 4 700 | 16 x 31,5 | 1175 | 0,22 | 0,08 | 2000 | -A5478-M |
| | 6 800 | 18 x 40 | 1700 | 0,26 | 0,06 | 2600 | -A5688-M |
| 8 200 | 22 x 35 | 2050 | 0,30 | 0,06 | 2700 | -A5828-M | |
| 10 000 | 22 x 40 | 2500 | 0,34 | 0,06 | 3000 | -A5109-M | |

* Type available under consult.

■ Preferred types.


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | $I_{L\max}$ | $\tan\delta_{\max}$ | ESR_{\max} | $I_{ac\max}$ | Ordering code |
|-------|----------------|--------------------------------|--------------------------|---------------------|----------------------------|----------------------------|---------------|
| | 120 Hz 20°C | $\varnothing d \times l$ mm | 5 min 20°C μA | 120 Hz 20°C | 120 Hz 20°C Ω | 120 Hz 85°C mA (rms) | Short Code |
| 35 | 33 | 5 x 11 | 12 | 0,14 | 7,0 | 85 | -A7336-M |
| | 47 | 5 x 11 | 16 | 0,14 | 4,9 | 130 | -A7476-M |
| | 68 | 6,3 x 11 | 24 | 0,14 | 3,4 | 160 | -A7686-M |
| | 100 | 6,3 x 11 | 35 | 0,14 | 2,3 | 180 | -F7107-M |
| | 100 | 8 x 11 | 35 | 0,14 | 2,3 | 210 | -A7107-M |
| | 150 | 8 x 11 | 53 | 0,14 | 1,5 | 270 | -A7157-M |
| | 220 | 10 x 12,5 | 77 | 0,14 | 1,1 | 390 | -A7227-M |
| | 270 | 10 x 12,5 | 95 | 0,14 | 0,9 | 430 | -A7277-M |
| | 330 | 10 x 12,5 | 116 | 0,14 | 0,70 | 450 | -A7337-M |
| | 470 | 10 x 16 | 165 | 0,14 | 0,49 | 570 | -A7477-M |
| | 560 | 10 x 20 | 196 | 0,14 | 0,41 | 770 | -A7567-M |
| | 680 | 10 x 20 | 238 | 0,14 | 0,34 | 840 | -A7687-M |
| | 1 000 | 12,5 x 25 | 350 | 0,14 | 0,23 | 1000 | -A7108-M |
| | 1 500 | 16 x 25 | 525 | 0,14 | 0,15 | 1400 | -A7158-M |
| | 2 200 | 16 x 31,5 | 770 | 0,16 | 0,12 | 1500 | -A7228-M |
| | 3 300 | 18 x 31 | 1155 | 0,18 | 0,09 | 2150 | -A7338-M |
| | 4 700 | 18 x 40 | 1645 | 0,20 | 0,07 | 2300 | -A7478-M |
| 6 800 | 22 x 40 | 2380 | 0,24 | 0,06 | 2500 | -A7688-M | |
| 50 | 10 | 5 x 11 | 5 | 0,12 | 20 | 60 | -A6106-M |
| | 22 | 5 x 11 | 11 | 0,12 | 9,0 | 90 | -A6226-M |
| | 33 | 6,3 x 11 | 17 | 0,12 | 6,0 | 110 | -A6336-M |
| | 47 | 6,3 x 11 | 24 | 0,12 | 4,2 | 150 | -A6476-M |
| | 68 | 8 x 11 | 34 | 0,12 | 2,9 | 190 | -A6686-M |
| | 100 | 8 x 11 | 50 | 0,12 | 2,0 | 250 | -A6107-M |
| | 150 | 10 x 12,5 | 75 | 0,12 | 1,3 | 320 | -A6157-M |
| | 220 | 10 x 12,5 | 110 | 0,12 | 0,90 | 400 | -A6227-M |
| | 270 | 10 x 16 | 135 | 0,12 | 0,74 | 480 | -A6277-M |
| | 330 | 10 x 16 | 165 | 0,12 | 0,60 | 510 | -A6337-M |
| | 470 | 10 x 20 | 235 | 0,12 | 0,42 | 700 | -A6477-M |
| | 560 | 12,5 x 25 | 280 | 0,12 | 0,36 | 900 | -A6567-M |
| | 680 | 12,5 x 25 | 340 | 0,12 | 0,29 | 1030 | -A6687-M |
| | 1 000 | 16 x 20 | 500 | 0,12 | 0,20 | 1100 | -A6108-M |
| | 1 500 | 16 x 31,5 | 750 | 0,12 | 0,13 | 1540 | -A6158-M |
| | 2 200 | 18 x 35 | 1100 | 0,14 | 0,11 | 1700 | -A6228-M |
| | 3 300 | 18 x 40 | 1650 | 0,16 | 0,08 | 1900 | -A6338-M |
| 4 700 | 22 x 40 | 2350 | 0,18 | 0,06 | 2200 | -A6478-M | |

Preferred types.


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | $I_{L_{max}}$ | $\tan\delta_{max}$ | ESR_{max} | $I_{ac_{max}}$ | Ordering code |
|-------|----------------------------|--------------------------------|---------------------------|--------------------|-----------------------------|-----------------------------|---------------|
| Vdc | 120 Hz 20 °C μF | $\varnothing d \times l$ mm | 5 min 20 °C μA | 120 Hz 20 °C | 120 Hz 20 °C Ω | 120 Hz 85 °C mA (rms) | Short Code |
| 63 | 6,8 | 5 x 11 | 4,3 | 0,12 | 29 | 50 | -A8685-M |
| | 10 | 5 x 11 | 6,3 | 0,12 | 20 | 60 | -A8106-M |
| | 22 | 6,3 x 11 | 14 | 0,12 | 9,0 | 110 | -A8226-M |
| | 33 | 6,3 x 11 | 21 | 0,12 | 6,0 | 130 | -A8336-M |
| | 47 | 8 x 11 | 30 | 0,12 | 4,2 | 180 | -A8476-M |
| | 68 | 10 x 12,5 | 43 | 0,12 | 2,9 | 230 | -A8686-M |
| | 100 | 10 x 12,5 | 63 | 0,12 | 2,0 | 290 | -A8107-M |
| | 150 | 10 x 16 | 95 | 0,12 | 1,3 | 360 | -A8157-M |
| | 220 | 10 x 16 | 139 | 0,12 | 0,90 | 470 | -A8227-M |
| | 270 | 10 x 20 | 170 | 0,12 | 0,74 | 500 | -A8277-M |
| | 330 | 10 x 20 | 208 | 0,12 | 0,60 | 620 | -A8337-M |
| | 470 | 12,5 x 25 | 296 | 0,12 | 0,42 | 900 | -A8477-M |
| | 560 | 16 x 20 | 353 | 0,12 | 0,36 | 930 | -A8567-M |
| | 680 | 16 x 25 | 428 | 0,12 | 0,29 | 1100 | -A8687-M |
| | 1 000 | 16 x 31,5 | 630 | 0,12 | 0,20 | 1500 | -A8108-M |
| | 1 500 | 18 x 35 | 945 | 0,12 | 0,13 | 1900 | -A8158-M |
| | 2 200 | 20 x 40 | 1386 | 0,14 | 0,11 | 2200 | -A8228-M |
| 100 | 0,1 | 5 x 11 | 3,0 | 0,10 | 1658 | 2,0 | -A9104-M |
| | 0,22 | 5 x 11 | 3,0 | 0,10 | 754 | 4,0 | -A9224-M |
| | 0,33 | 5 x 11 | 3,0 | 0,10 | 502 | 7,0 | -A9334-M |
| | 0,47 | 5 x 11 | 3,0 | 0,10 | 353 | 10 | -A9474-M |
| | 0,68 | 5 x 11 | 3,0 | 0,10 | 244 | 13 | -A9684-M |
| | 1 | 5 x 11 | 3,0 | 0,10 | 166 | 21 | -A9105-M |
| | 1,5 | 5 x 11 | 3,0 | 0,10 | 111 | 24 | -A9155-M |
| | 2,2 | 5 x 11 | 3,0 | 0,10 | 75 | 30 | -A9225-M |
| | 3,3 | 5 x 11 | 3,3 | 0,10 | 50 | 40 | -A9335-M |
| | 4,7 | 5 x 11 | 4,7 | 0,10 | 35 | 45 | -A9475-M |
| | 10 | 6,3 x 11 | 10 | 0,10 | 17 | 75 | -A9106-M |
| | 22 | 8 x 11 | 22 | 0,10 | 7,5 | 130 | -A9226-M |
| | 33 | 10 x 12,5 | 33 | 0,10 | 5,0 | 190 | -A9336-M |
| | 47 | 10 x 16 | 47 | 0,10 | 3,5 | 250 | -A9476-M |
| | 47 | 10 x 12,5 | 47 | 0,10 | 3,5 | 230 | -B9476-M |
| | 68 | 10 x 16 | 68 | 0,10 | 2,4 | 280 | -A9686-M |
| | 100 | 10 x 20 | 100 | 0,10 | 1,7 | 350 | -A9107-M |
| | 150 | 12,5 x 25 | 150 | 0,10 | 1,1 | 550 | -A9157-M |
| | 220 | 12,5 x 25 | 220 | 0,10 | 0,75 | 620 | -A9227-M |
| | 270 | 16 x 25 | 270 | 0,10 | 0,61 | 770 | -A9277-M |
| | 330 | 16 x 25 | 330 | 0,10 | 0,50 | 800 | -A9337-M |
| | 470 | 16 x 31,5 | 470 | 0,10 | 0,35 | 900 | -A9477-M |
| | 560 | 16 x 31,5 | 560 | 0,10 | 0,30 | 1000 | -A9567-M |
| | 680 | 20 x 30 | 680 | 0,10 | 0,24 | 1100 | -A9687-M |
| | 1 000 | 20 x 40 | 1000 | 0,10 | 0,17 | 1300 | -A9108-M |


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | $I_{L_{max}}$ | $t_{and_{max}}$ | ESR_{max} | $I_{ac_{max}}$ | Ordering code |
|-----------------|----------------------------|--------------------------------|---------------------------|-----------------|-----------------------------|-----------------------------|---------------|
| Vdc | 120 Hz 20 °C μF | $\varnothing d \times l$ mm | 5 min 20 °C μA | 120 Hz 20 °C | 120 Hz 20 °C Ω | 120 Hz 85 °C mA (rms) | Short Code |
| B43821 - | | | | | | | |
| 160 | 0,47 | 6,3 x 11 | 17 | 0,20 | 705 | 14 | -A1474-M |
| | 0,68 | 6,3 x 11 | 18 | 0,20 | 488 | 16 | -A1684-M |
| | 1 | 6,3 x 11 | 20 | 0,20 | 332 | 21 | -A1105-M |
| | 1,5 | 6,3 x 11 | 22 | 0,20 | 221 | 30 | -A1155-M |
| | 2,2 | 6,3 x 11 | 26 | 0,20 | 151 | 40 | -A1225-M |
| | 3,3 | 6,3 x 11 | 31 | 0,20 | 100 | 45 | -A1335-M |
| | 4,7 | 8 x 11 | 38 | 0,20 | 71 | 55 | -A1475-M |
| | 6,8 | 8 x 11 | 48 | 0,20 | 49 | 62 | -A1685-M |
| | 10 | 10 x 12,5 | 63 | 0,20 | 33 | 85 | -A1106-M |
| | 22 | 10 x 16 | 121 | 0,20 | 15 | 130 | -A1226-M |
| | 33 | 10 x 20 | 173 | 0,20 | 10 | 175 | -A1336-M |
| | 47 | 12,5 x 25 | 241 | 0,20 | 7,1 | 260 | -A1476-M |
| | 68 | 16 x 20 | 341 | 0,20 | 4,9 | 330 | -A1686-M |
| | 100 | 16 x 25 | 495 | 0,20 | 3,3 | 410 | -A1107-M |
| | 150 | 16 x 31,5 | 735 | 0,20 | 2,2 | 520 | -A1157-M |
| 220 | 18 x 31 | 1071 | 0,20 | 1,5 | 660 | -A1227-M | |
| 270 | 18 x 40 | 1311 | 0,20 | 1,2 | 700 | -A1277-M | |
| 330 | 20 x 30 | 1599 | 0,20 | 1,0 | 750 | -A1337-M | |
| 470 | 22 x 35 | 2271 | 0,20 | 0,71 | 1000 | -A1477-M | |
| 560 | 22 x 40 | 2703 | 0,20 | 0,59 | 1100 | -A1567-M | |
| 200 | 0,47 | 6,3 x 11 | 18 | 0,20 | 705 | 14 | -A2474-M |
| | 0,68 | 6,3 x 11 | 19 | 0,20 | 488 | 16 | -A2684-M |
| | 1 | 6,3 x 11 | 21 | 0,20 | 332 | 21 | -A2105-M |
| | 1,5 | 6,3 x 11 | 24 | 0,20 | 221 | 30 | -A2155-M |
| | 2,2 | 6,3 x 11 | 28 | 0,20 | 151 | 40 | -A2225-M |
| | 3,3 | 6,3 x 11 | 35 | 0,20 | 100 | 45 | -A2335-M |
| | 4,7 | 8 x 11 | 43 | 0,20 | 71 | 55 | -A2475-M |
| | 6,8 | 10 x 12,5 | 56 | 0,20 | 49 | 78 | -A2685-M |
| | 10 | 10 x 16 | 75 | 0,20 | 33 | 90 | -A2106-M |
| | 10 | 10 x 12,5 | 75 | 0,20 | 33 | 80 | -B2106-M |
| | 22 | 10 x 20 | 147 | 0,20 | 15 | 140 | -A2226-M |
| | 33 | 12,5 x 25 | 213 | 0,20 | 10 | 180 | -A2336-M |
| | 33 | 10 x 20 | 213 | 0,20 | 10 | 155 | -B2336-M |
| | 47 | 12,5 x 25 | 297 | 0,20 | 7,1 | 250 | -A2476-M |
| | 68 | 16 x 20 | 423 | 0,20 | 4,9 | 330 | -A2686-M |
| | 100 | 16 x 25 | 615 | 0,20 | 3,3 | 410 | -A2107-M |
| | 150 | 18 x 31 | 915 | 0,20 | 2,2 | 540 | -A2157-M |
| | 220 | 18 x 35 | 1335 | 0,20 | 1,5 | 1000 | -A2227-M |
| 270 | 20 x 35 | 1635 | 0,20 | 1,2 | 1100 | -A2277-M | |
| 330 | 22 x 35 | 1995 | 0,20 | 1,0 | 1200 | -A2337-M | |


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | I_{Lmax} | $\tan\delta_{max}$ | ESR_{max} | I_{acmax} | Ordering code |
|-------|---------------------------|--------------------------------|--------------------------|--------------------|----------------------------|----------------------------|---------------|
| | 120 Hz 20°C μF | $\varnothing d \times l$ mm | 5 min 20°C μA | 120 Hz 20°C | 120 Hz 20°C Ω | 120 Hz 85°C mA (rms) | Short Code |
| 250 | 0,47 | 6,3 x 11 | 19 | 0,20 | 705 | 12 | -F2474-M |
| | 0,68 | 6,3 x 11 | 20 | 0,20 | 488 | 17 | -F2684-M |
| | 1 | 6,3 x 11 | 23 | 0,20 | 332 | 21 | -F2105-M |
| | 1,5 | 6,3 x 11 | 26 | 0,20 | 221 | 30 | -F2155-M |
| | 2,2 | 6,3 x 11 | 32 | 0,20 | 151 | 45 | -F2225-M |
| | 3,3 | 8 x 11 | 40 | 0,20 | 100 | 50 | -F2335-M |
| | 4,7 | 10 x 12,5 | 50 | 0,20 | 71 | 70 | -F2475-M |
| | 6,8 | 10 x 12,5 | 66 | 0,20 | 49 | 78 | -F2685-M |
| | 10 | 10 x 16 | 90 | 0,20 | 33 | 90 | -F2106-M |
| | 22 | 10 x 20 | 180 | 0,20 | 15 | 145 | -F2226-M |
| | 33 | 12,5 x 25 | 263 | 0,20 | 10 | 215 | -F2336-M |
| | 47 | 16 x 20 | 368 | 0,20 | 7,1 | 300 | -F2476-M |
| | 68 | 16 x 25 | 525 | 0,20 | 4,9 | 330 | -F2686-M |
| | 100 | 18 x 35 | 765 | 0,20 | 3,3 | 700 | -F2107-M |
| | 150 | 18 x 40 | 1140 | 0,20 | 2,2 | 850 | -F2157-M |
| | 220 | 18 x 40 | 1665 | 0,20 | 1,5 | 1000 | -F2227-M |
| | 270 | 22 x 35 | 2040 | 0,20 | 1,2 | 1100 | -F2277-M |
| 330 | 22 x 40 | 2490 | 0,20 | 1,0 | 1200 | -F2337-M | |
| 350 | 0,47 | 6,3 x 11 | 20 | 0,20 | 705 | 12 | -A4474-M |
| | 0,68 | 6,3 x 11 | 22 | 0,20 | 488 | 15 | -A4684-M |
| | 1 | 6,3 x 11 | 26 | 0,20 | 332 | 21 | -A4105-M |
| | 1,5 | 8 x 11 | 31 | 0,20 | 221 | 26 | -A4155-M |
| | 2,2 | 8 x 11 | 38 | 0,20 | 151 | 30 | -A4225-M |
| | 3,3 | 10 x 12,5 | 50 | 0,20 | 100 | 45 | -A4335-M |
| | 4,7 | 10 x 12,5 | 64 | 0,20 | 71 | 55 | -A4475-M |
| | 6,8 | 10 x 16 | 86 | 0,20 | 49 | 85 | -A4685-M |
| | 10 | 10 x 20 | 120 | 0,20 | 33 | 95 | -A4106-M |
| | 22 | 12,5 x 25 | 246 | 0,20 | 15 | 175 | -A4226-M |
| | 33 | 16 x 25 | 362 | 0,20 | 10 | 240 | -A4336-M |
| | 47 | 16 x 31,5 | 509 | 0,20 | 7,1 | 320 | -A4476-M |
| | 68 | 18 x 31 | 729 | 0,20 | 4,9 | 420 | -A4686-M |
| | 100 | 20 x 30 | 1065 | 0,20 | 3,3 | 600 | -A4107-M |
| | 150 | 20 x 40 | 1590 | 0,20 | 2,2 | 700 | -A4157-M |

■ Preferred types.


Single Ended GP – Capacitors
B41821/B43821
Standard Series – 85°C

| U_N | C_N | Case Dimensions | $I_{L,max}$ | $\tan\delta_{max}$ | ESR_{max} | $I_{ac,max}$ | Ordering code |
|-------|---------------------------|--------------------------------|--------------------------|--------------------|----------------------------|----------------------------|---------------|
| Vdc | 120 Hz 20°C μF | $\varnothing d \times l$ mm | 5 min 20°C μA | 120 Hz 20°C | 120 Hz 20°C Ω | 120 Hz 85°C mA (rms) | Short Code |
| 400 | 2,2 | 10 x 12,5 | 41 | 0,20 | 151 | 40 | -A9225-M |
| | 3,3 | 10 x 12,5 | 55 | 0,20 | 100 | 45 | -A9335-M |
| | 4,7 | 10 x 16 | 71 | 0,20 | 71 | 60 | -A9475-M |
| | 6,8 | 10 x 16 | 97 | 0,20 | 49 | 70 | -A9685-M |
| | 10 | 10 x 20 | 135 | 0,20 | 33 | 95 | -A9106-M |
| | 22 | 16 x 20 | 279 | 0,20 | 15 | 180 | -A9226-M |
| | 33 | 16 x 25 | 411 | 0,20 | 10 | 240 | -A9336-M |
| | 47 | 16 x 31,5 | 579 | 0,20 | 7,1 | 310 | -A9476-M |
| | 68 | 18 x 31,5 | 831 | 0,20 | 4,9 | 410 | -A9686-M |
| | 100 | 20 x 35 | 1215 | 0,20 | 3,3 | 600 | -A9107-M |
| 450 | 2,2 | 10 x 12,5 | 45 | 0,20 | 151 | 28 | -A5225-M |
| | 3,3 | 10 x 16 | 60 | 0,20 | 100 | 44 | -A5335-M |
| | 4,7 | 10 x 20 | 78 | 0,20 | 71 | 50 | -A5475-M |
| | 6,8 | 10 x 20 | 107 | 0,20 | 49 | 75 | -A5685-M |
| | 10 | 12,5 x 25 | 150 | 0,20 | 33 | 90 | -A5106-M |
| | 22 | 16 x 25 | 312 | 0,20 | 15 | 165 | -A5226-M |
| | 33 | 16 x 31,5 | 460 | 0,20 | 10 | 220 | -A5336-M |
| | 47 | 18 x 31,5 | 650 | 0,20 | 7,1 | 265 | -A5476-M |
| | 68 | 18 x 35 | 933 | 0,20 | 4,9 | 520 | -A5686-M |
| | 100 | 20 x 40 | 1365 | 0,20 | 3,3 | 600 | -A5107-M |

Preferred types.

How to determine the ordering code

To obtain the required ordering code, prefix the type number to the short code.

E. g.: B41821-A9105-M

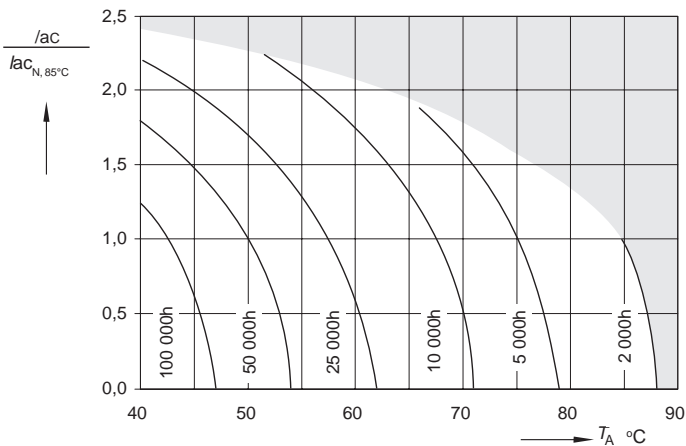
| | $U_N = 6,3 \dots 100$ Vdc | $U_N = 160 \dots 450$ Vdc |
|-------------|---------------------------|---------------------------|
| Type number | B41821-... | B43821-... |



Useful life

versus temperature T_A (*) under ripple operating conditions ¹⁾

$U_N = 6,3 \dots 100$ Vdc

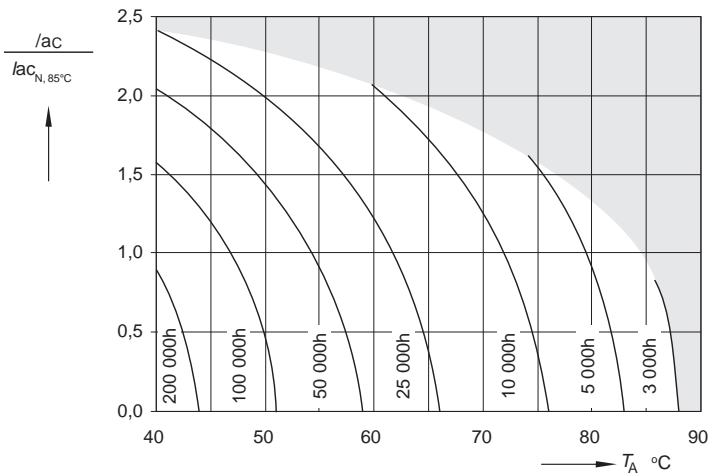


(*) " T_A " – Must be considered as the temperature of the capacitor's place in the board/circuit in maximum operate conditional

Useful life

versus temperature T_A (*) under ripple operating conditions ¹⁾

$U_N = 160 \dots 450$ Vdc



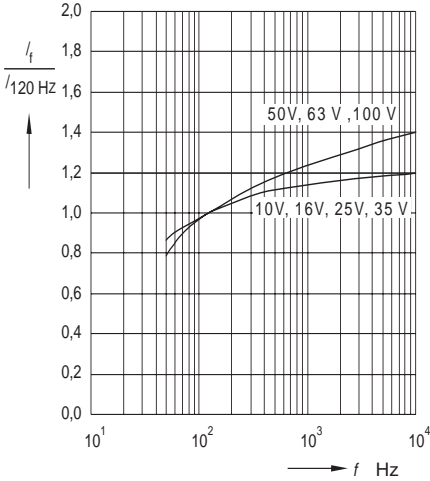
¹⁾ Refer to page 42 for an explanation on how to interpret the useful life graph.



Permissible ripple current I_r

versus frequency f

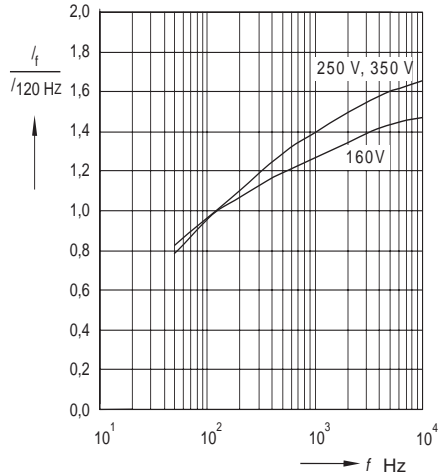
$U_N \leq 100$ Vdc



Permissible ripple current I_r

versus frequency f

$U_N \geq 160$ Vdc

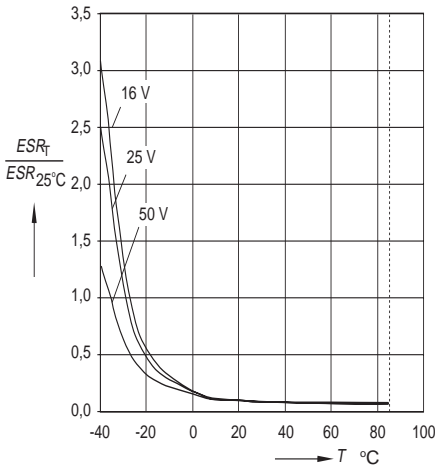


Equivalent series resistance ESR

at $f = 120$ Hz versus temperature T

Typical behavior

$U_N \leq 100$ Vdc

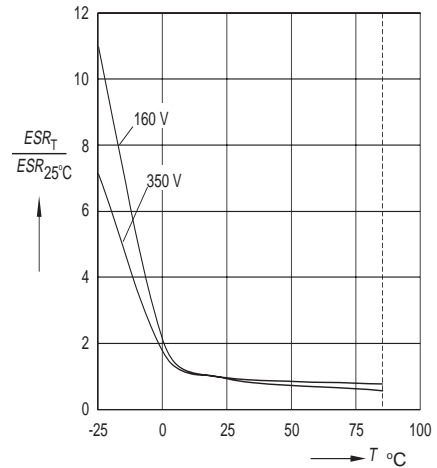


Equivalent series resistance ESR

at $f = 120$ Hz versus temperature T

Typical behavior

$U_N \geq 160$ Vdc



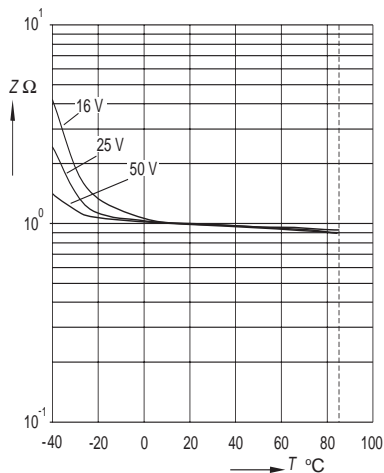


Impedance Z at $f = 120$ Hz

versus temperature T

Typical behavior

$U_N \leq 100$ Vdc

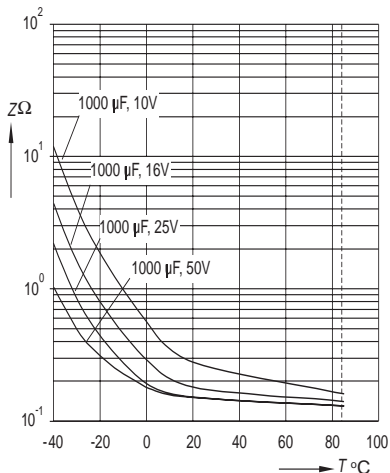


Impedance Z at $f = 10$ kHz

versus temperature T

Typical behavior

$U_N \leq 100$ Vdc

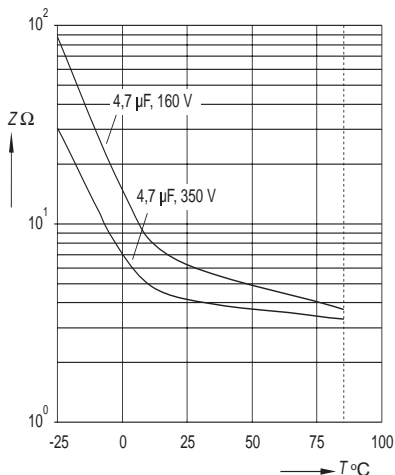


Impedance Z at $f = 10$ kHz

versus temperature T

Typical behavior

$U_N \geq 160$ Vdc

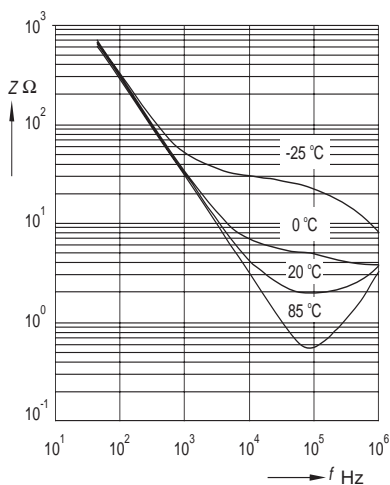


Impedance Z

versus frequency f

and temperature for 4,7 µF/350Vdc

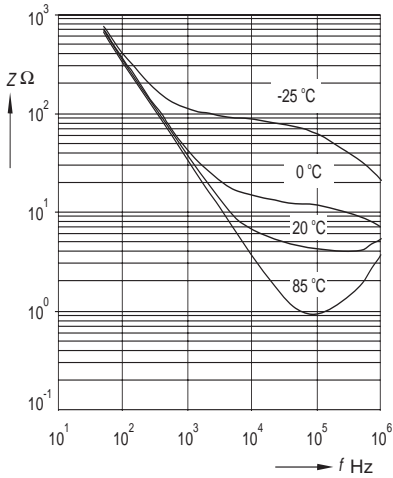
Typical behavior





Impedance Z

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



Impedance Z

versus frequency f
Typical values at 20°C
 $U_N \geq 160\text{Vdc}$

