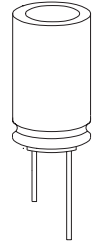


**Very low impedance**

**Operating at temperatures up to 105° C**

**Construction**

- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on case surface
- Case with safety vent from diameter 8mm
- Stand off rubber seal



**Features**

- Very low impedance at high frequency
- Very low equivalent series resistance *ESR*
- High ripple current capability
- Wide temperature range

**Applications**

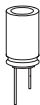
- For use in output circuits of switch-mode power supplies of compact design
- For professional industrial electronics, telecommunications and data processing equipment

**Special terminals configurations and packaging**

Refer to page 163 for information and examples on how to order them.

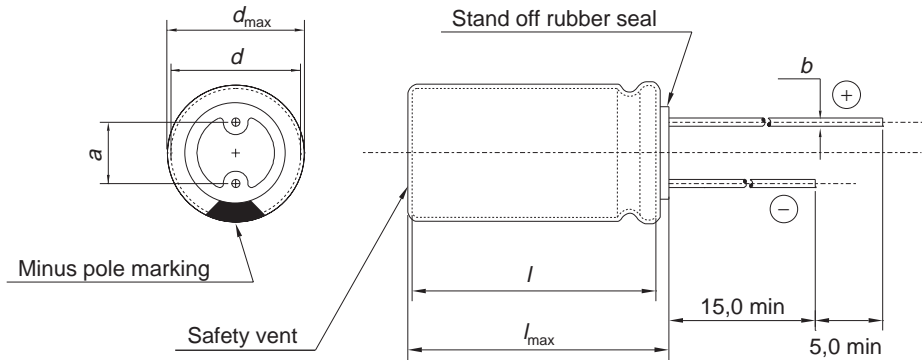
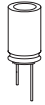
**Specifications and characteristics in brief**

Rated voltage $V_R$	10 ... 50 Vdc
Surge voltage $V_S$	$1,15 \cdot V_R$
Rated capacitance $C_R$	100 ... 4 700 $\mu$ F
Capacitance tolerance	$\pm 20 \%$ (M)
Useful life	
105 °C, $V_R$ ; $I_{aC_{max}}$	> 3 000 h for $d = 8$ mm
105 °C, $V_R$ ; $I_{aC_{max}}$	> 5 000 h for $d \geq 10$ mm
Fraction failure	$\leq 1 \%$ (during the useful life)
Failure rate (1 fit = $1 \cdot 10^{-9}$ /h)	$\leq 100$ fit



## B41858

Voltage endurance test	2 000 h, 105 °C for d = 8 mm at $V_R$ 5 000 h, 105 °C for $\geq 10$ mm at $V_R$  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
Leakage current $I_{lka}$ (5 min, 20 °C)	$I_{lka} \leq 0,01 \mu A \cdot \left( \frac{C_R}{\mu F} \cdot \frac{V_R}{V} \right)$
IEC climatic category	in accordance with IEC 68-1 55/105/56 (-55 0C/ +105 0C, 56 days of damp heat, stead state test
Sectional specifications	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



Dimensions (mm)				Approx. weight (g)
$d \times l$	$d_{max} \times l_{max}$	$a \pm 0,5$	$b \pm 0,05$	
8 x 11	8,5 x 12	3,5	0,6	1,0
10 x 16	10,5 x 17	5,0	0,6	1,9
10 x 20	10,5 x 22	5,0	0,6	2,6
12,5 x 25	13 x 27	5,0	0,6	4,5
16 x 20	16,5 x 22	7,5	0,8	5,5
16 x 25	16,5 x 27	7,5	0,8	7,5
16 x 31,5	16,5 x 33,5	7,5	0,8	7,8
18 x 31,5	18,5 x 32,5	7,5	0,8	11,0
18 x 35	18,5 x 36	7,5	0,8	13,0
18 x 40	18,5 x 41	7,5	0,8	16,0

For  $d = 18 \text{ mm}$  tolerance  $b = \pm 0,1$



## B41858

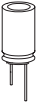
### Packing units

Case dimensions $d \times l$ (mm)	Bulk PU (pcs.)	Cut / Kinked PU (pcs.)	AMMO packing PU (pcs.)
8 x 11	1000	500 / -	1000
10 x 16	1000	1000	500
10 x 20	500	500	500
12,5 x 25	250	500	500
16 x 20	250	200	
16 x 25	250	200	
16 x 31,5	200	250	
18 x 31,5	100	100	
18 x 35	100	100	
18 x 40	100	100	

### Overview of available types

$V_R$ (Vdc)	10	16	25	35	50
$C_R$ ( $\mu$ F)	Case dimensions $d \times l$ (mm)				
100			8 x 11	8 x 11	10 x 16
220		8 x 11	10 x 16	10 x 16	10 x 20
330	8 x 11	10 x 16	10 x 16	10 x 20	12,5 x 25
470	10 x 16	10 x 16	10 x 20	10 x 20	16 x 20
1 000	10 x 20	10 x 20	12,5 x 25	16 x 25	18 x 31,5
2 200	12,5 x 25	16 x 20	16 x 31,5	18 x 35	
3 300	16 x 20	16 x 31,5	18 x 35	18 x 40	
4 700	16 x 31,5	18 x 35	18 x 40		

Other voltage and capacitance ratings are also available upon request.

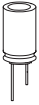


### Technical data and ordering codes

$V_R$	$C_R$	Case Dimensions	$I_{Lmax}$	$\tan \delta_{max}$	$ESR_{max}$	$I_{aC_R}$	$Z_{max}$	Ordering code
Vdc	120 Hz 20 °C $\mu F$	$d \times l$ mm	5 min 20 °C $\mu A$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	100 kHz 105 °C mA	100 kHz 20 °C $\Omega$	Short Code
10	330	8 x 11	33	0,19	0,95	440	0,170	-A3337-M
	470	10 x 16	47	0,19	0,67	640	0,120	-A3477-M
	1 000	10 x 20	100	0,19	0,31	1120	0,062	-A3108-M
	2 200	12,5 x 25	220	0,21	0,16	1620	0,034	-A3228-M
	3 300	16 x 20	330	0,23	0,12	1700	0,030	-A3338-M
	4 700	16 x 31,5	470	0,25	0,09	2210	0,024	-A3478-M
16	220	8 x 11	35	0,16	1,21	530	0,120	-A4227-M
	330	10 x 16	53	0,16	0,80	640	0,100	-A4337-M
	470	10 x 16	75	0,16	0,56	840	0,084	-A4477-M
	1 000	10 x 20	160	0,16	0,27	1340	0,050	-A4108-M
	2 200	16 x 20	352	0,18	0,14	1800	0,030	-A4228-M
	3 300	16 x 31,5	528	0,20	0,10	2310	0,024	-A4338-M
25	4 700	18 x 35	752	0,22	0,08	2790	0,018	-A4478-M
	100	8 x 11	25	0,14	2,32	340	0,180	-A5107-M
	220	10 x 16	55	0,14	1,06	620	0,120	-A5227-M
	330	10 x 16	83	0,14	0,70	830	0,084	-A5337-M
	470	10 x 20	118	0,14	0,49	1080	0,062	-A5477-M
	1 000	12,5 x 25	250	0,14	0,23	1690	0,034	-A5108-M
35	2 200	16 x 31,5	550	0,16	0,12	2310	0,024	-A5228-M
	3 300	18 x 35	825	0,18	0,09	2740	0,018	-A5338-M
	4 700	18 x 40	1175	0,20	0,07	3090	0,015	-A5478-M
	100	8 x 11	35	0,12	1,99	500	0,120	-A7107-M
	220	10 x 16	77	0,12	0,90	820	0,084	-A7227-M
	330	10 x 20	116	0,12	0,60	1090	0,062	-A7337-M
50	470	10 x 20	165	0,12	0,42	1200	0,052	-A7477-M
	1 000	16 x 25	350	0,12	0,20	1960	0,030	-A7108-M
	2 200	18 x 35	770	0,14	0,11	2850	0,018	-A7228-M
	3 300	18 x 40	1155	0,16	0,08	3150	0,015	-A7338-M
	100	10 x 16	50	0,10	1,66	640	0,130	-A6107-M
	220	10 x 20	110	0,10	0,75	1050	0,080	-A6227-M
50	330	12,5 x 25	165	0,10	0,50	1400	0,062	-A6337-M
	470	16 x 20	235	0,10	0,35	1240	0,048	-A6477-M
	1 000	18 x 31,5	500	0,10	0,17	2310	0,030	-A6108-M

### How to determine the ordering code

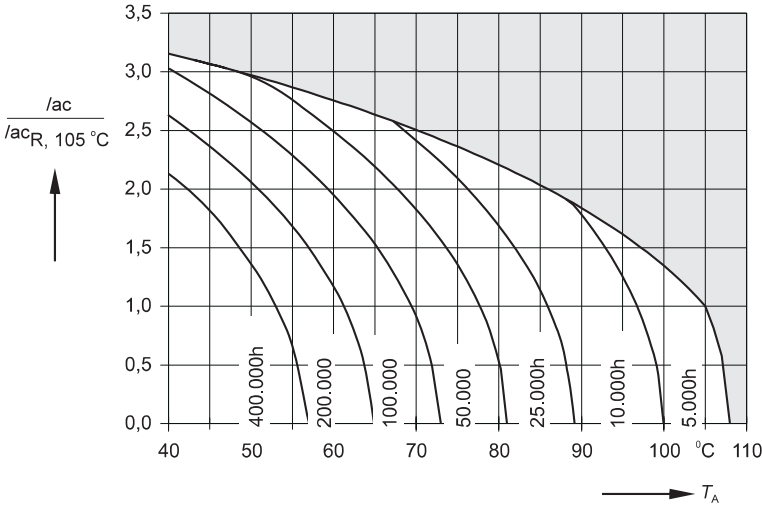
To obtain the required ordering code, prefix the type number to the short code.  
E.g.: B41858-A6107-M



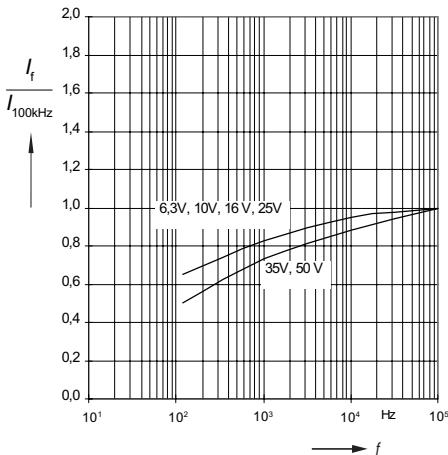
# B41858

## Useful life

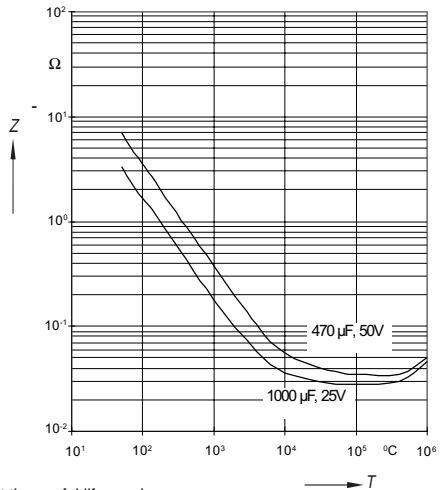
versus temperature  $T_A$  under ripple operating conditions <sup>1)</sup>  
 $V_R = 10 \dots 50$  Vdc



## Permissible ripple current $I_{ac}$ versus frequency $f$



## Impedance $Z$ versus frequency $f$ Typical values at 20 °C



<sup>1)</sup> Refer to page 32 for an explanation on how to interpret the useful life graph.