

Axial Aluminum Electrolytic Capacitors for Electronic Ballasts: B43698

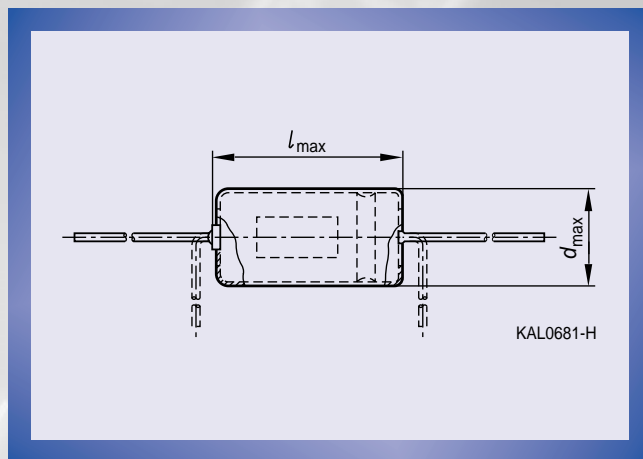
Specifications and characteristics in brief				Product	
Rated voltage	U_R	450		V_{dc}	
Surge voltage	U_S	550 V at 85 °C, 500 V at 105 °C		V	
Rated capacitance	C_R	6.8 ... 33		μF	
Capacitance tolerance	$\Delta C/C$	-10/+30 ΔQ		%	
Useful life*	$t_{LD(CO)}$			h	
		40 °C, U_R	250 000 (2.2 $I_{\sim R, 105^\circ C}$)		
		85 °C, $U_R, I_{\sim R}$	50 000		
		85 °C, $U_R, I_{\sim max}$	25 000		
	105 °C, $U_R, I_{\sim R}$	10 000			
Voltage endurance test		5 000, 105 °C, U_R			
Leakage current (5 min, 20 °C)	I_{LC}	$I_{LC} \leq 0.3 \cdot \left(\frac{C_R}{\mu F} \cdot \frac{U_R}{V} \right)^{0.7} + 4$		μA	
Self-inductance	L_{ESL}	diam. (d mm)	12 14 16 18	nH	
		length (l mm)	approx. L_{ESL}		
		25	– 22 26 –		
		30	21 24 29 34		
		39	– – 33 38		
IEC climatic category		in acc. with IEC 60068-1: 40/105/56 (-40 °C, +105 °C, 56 days damp heat test)			
Detail / Sectional spec.		similar to CECC 30 301-801 / IEC 60384-4			
Vibration resistance		in acc. with IEC 60068-2-6, test F_c : displacement amplitude 0.75 mm, frequency range 10 to 55 Hz, acceleration max. 10 g, duration 3 x 2 h			



*Ambient temperatures
Failure rate ≤ 20 fit, ($\leq 20 \cdot 10^{-9}/h$); failure percentage (during useful life) ≤ 1 %

Features

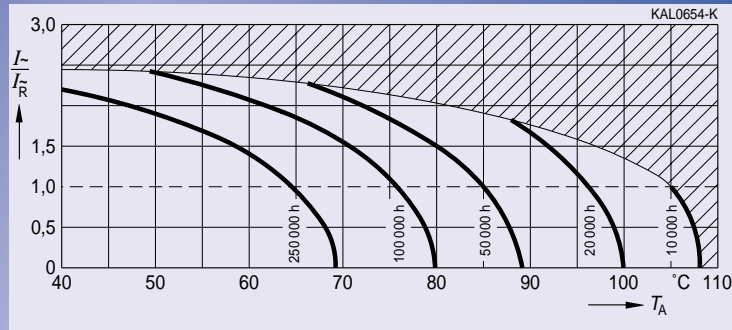
- U_R 450 V
- C_R 6.8 μF ... 33 μF
- Very long useful life at 105 °C / 10 000 h
- High ripple current capability
- High voltage capability and operation
550 V / 85 °C / 500 h,
500 V / 105 °C / 2000 h
- High operating temperature capability at 125 °C / 420 V, using polyester insulation
- Strong and reliable performance in electronic ballast applications and similar designs



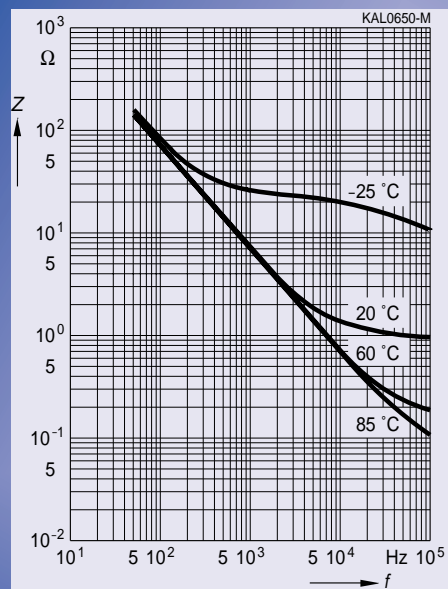
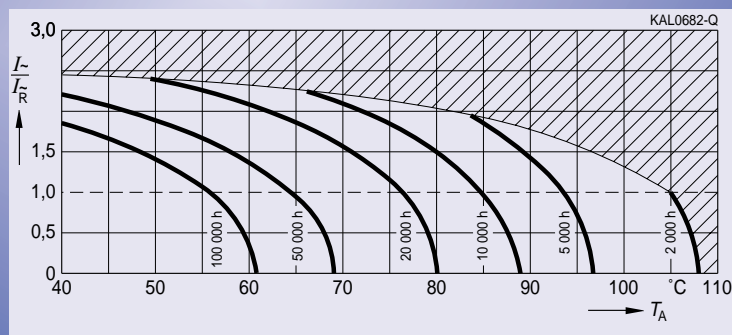
d x l (mm)	$d_{max} \times l_{max}$ (mm)	Mass (g)
12 x 30	12.5 x 30.5	5.1
14 x 25	14.5 x 25.5	5.7
14 x 30	14.5 x 30.5	6.8
16 x 30	16.5 x 30.5	8.9
16 x 39	16.5 x 40	11.7
18 x 30	18.5 x 30.5	11.1
18 x 39	18.5 x 40	14.7

Diagrams and Characteristics: B43698

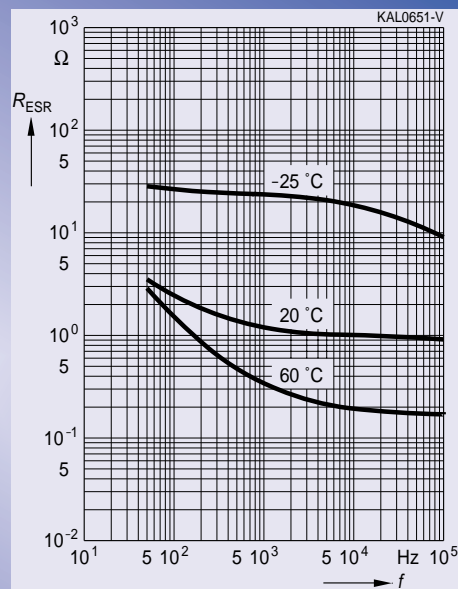
- Useful life depending on ambient temperature T_A under ripple current operating conditions
- Rated voltage U_R applied



- Useful life depending on ambient temperature T_A under ripple current operating conditions
- Operating voltage $U_{op} = 500 V$

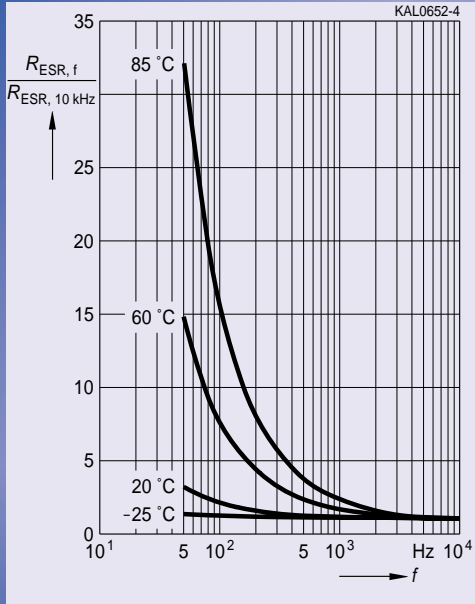


- Impedance Z versus frequency f at different temperatures
- Typical behavior for 22 $\mu F/450 V$

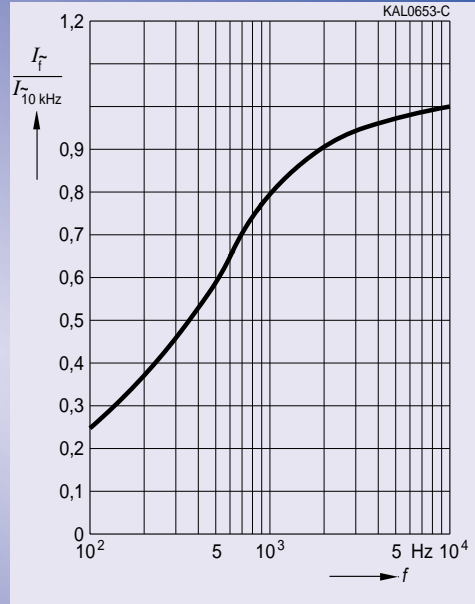


- Equivalent series resistance R_{ESR} versus frequency f at different temperatures
- Typical behavior for 22 $\mu F/450 V$

Diagrams and Characteristics: B43698



- Standardized equivalent series resistance versus frequency f at different temperatures
- Typical behavior



- Frequency factor of permissible ripple current I_{\sim} versus frequency f

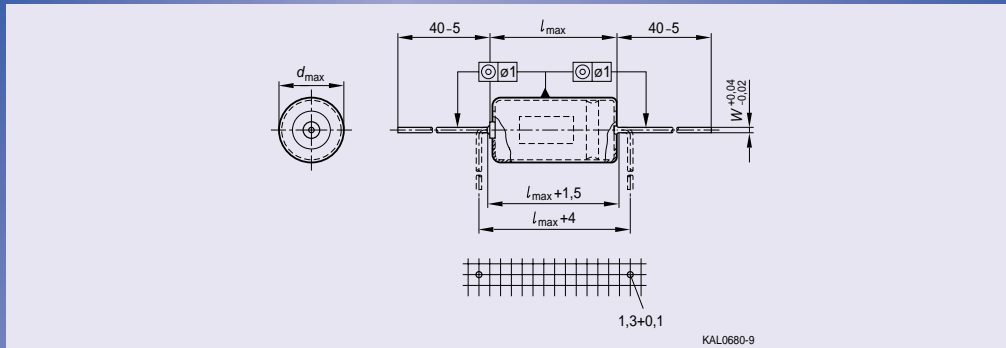
Technical Data and Ordering Code

U_R	C_R	Case dimens. $d \times l$ mm	$R_{ESR, typ}$ 100 Hz 20 °C Ω	$R_{ESR, max}$ 100 Hz 20 °C Ω	$R_{ESR, max}$ 100 Hz -25 °C Ω	$R_{ESR, max}$ 10 kHz 20 °C Ω	Z_{max} 100 kHz 20 °C Ω	$I_{\sim max}$ 10 kHz 40 °C A	$I_{\sim max}$ 10 kHz 85 °C A	$I_{\sim R}$ 10 kHz 105 °C A	Ord. code Bulk	Ord. code Pallet	Ord. code Reel
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B43698

450	6.8	12 x 30	7.2	12.0	180	5.5	5.4	1.00	0.82	0.43	A5685Q000	A5685Q007	A5685Q009
	10	14 x 30	4.9	8.1	120	3.8	3.7	1.30	1.05	0.55	A5106Q000	A5106Q007	A5106Q009
	15	16 x 30	3.2	5.4	80	2.5	2.4	1.75	1.35	0.73	A5156Q000	A5156Q007	A5156Q009
	22	16 x 39	2.2	3.7	50	1.7	1.6	2.40	1.90	1.00	A5226Q000	A5226Q007	
	33	18 x 39	1.5	2.5	40	1.2	1.1	3.00	2.40	1.25	A5336Q000	A5336Q007	

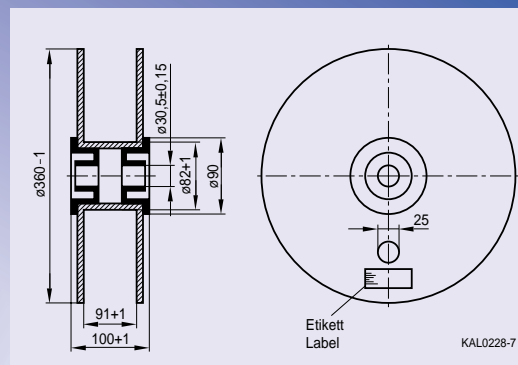
Dimensional Drawings



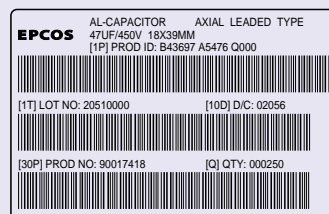
Dimensions (mm) d x l	d _{max} x l _{max}	Approximate mass (g)	wire W (mm)	Packing units		
				Bulk (pcs.)	Reel (pcs.)	Pallet (pcs.)
12 x 30	12.5 x 30.5	5.1	0.8	600	450	288
14 x 25	14.5 x 25.5	5.7	0.8	500	350	200
14 x 30	14.5 x 30.5	6.8	0.8	400	350	200
16 x 30	16.5 x 30.5	8.9	0.8	350	250	180
16 x 39	16.5 x 40	11.7	0.8	300	–	180
18 x 30	18.5 x 30.5	11.1	1.0	300	–	160
18 x 39	18.5 x 40	14.7	1.0	250	–	160

Packing

Axial-leaded capacitor (pallet/Q007; reel/Q009)



Label



[1P] Ordering code (bulk, e.g.)
 [1T] Lot number
 [10D] Date code (yywwd)
 [30P] Product number
 [Q] Quantity

KAL0677-P-E

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