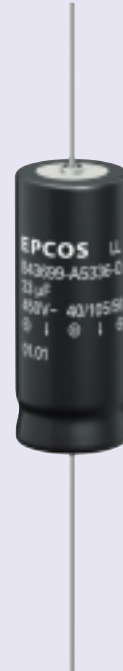


Axial Aluminum Electrolytic Capacitors for Electronic Ballasts: B43699

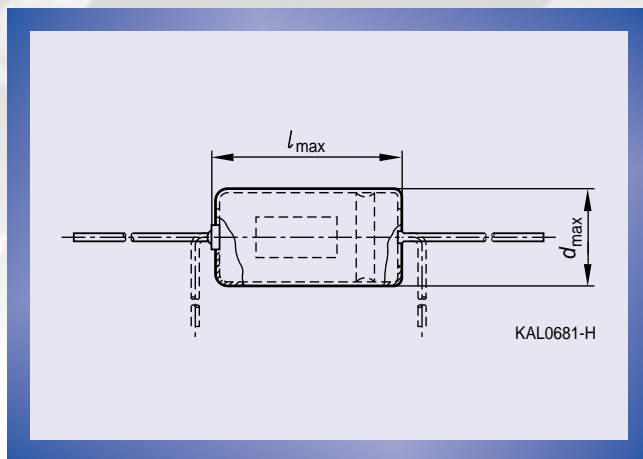
| Specifications and characteristics in brief | | | | Product | |
|---|--------------|--|------------------------------------|----------|--|
| Rated voltage | U_R | 450 | | V_{dc} | |
| Surge voltage | U_S | 550 at 85 °C, 500 V at 105 °C | | V | |
| Rated capacitance | C_R | 10 ... 47 | | μF | |
| Capacitance tolerance | $\Delta C/C$ | -10/+30 ΔQ | | % | |
| Useful life* | $t_{LD(CO)}$ | | | h | |
| | | 40 °C, U_R | 250 000 (2.2 $I_{R,105^\circ C}$) | | |
| | | 85 °C, U_R , I_{R-} | 50 000 | | |
| | | 85 °C, U_R , I_{R-max} | 25 000 | | |
| | | 105 °C, U_R , I_{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

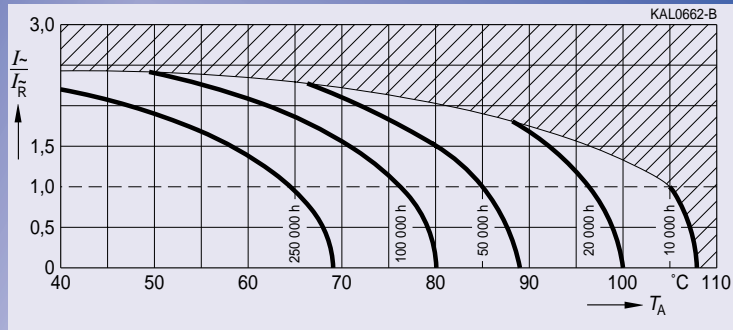
- U_R 450 V
- C_R 10 μF ... 47 μF
- Very long expected life at 105 °C / 10 000 h
- High ripple current capability
- High voltage capability and operation, 550 V / 85 °C / 500 h, 500 V / 105 °C / 2000 h
- Strong and reliable performance dedicated for electronic ballast units and similar designs
- Small dimensions



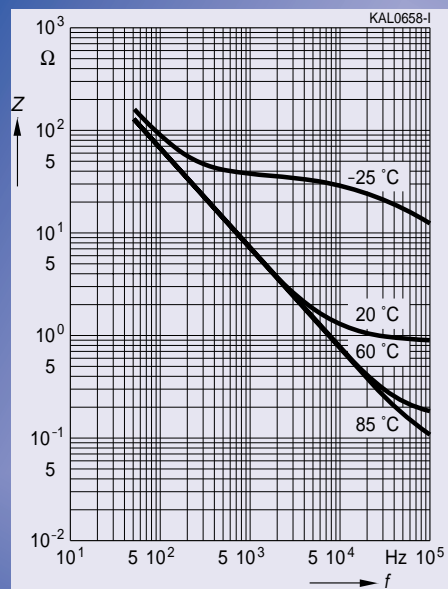
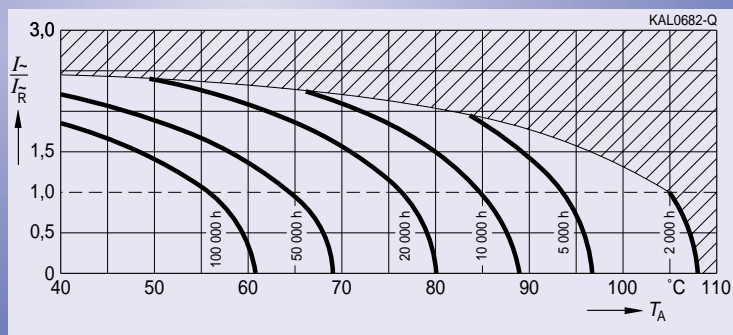
| d x l (mm) | $d_{max} \times l_{max}$ (mm) | Mass (g) |
|------------|-------------------------------|----------|
| 12 x 30 | 12.5 x 30.5 | 5.1 |
| 14 x 25 | 14.5 x 25.5 | 5.7 |
| 14 x 30 | 14.5 x 30.5 | 6.8 |
| 16 x 30 | 16.5 x 30.5 | 8.9 |
| 16 x 39 | 16.5 x 40 | 11.7 |
| 18 x 30 | 18.5 x 30.5 |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

Diagrams and Characteristics: B43699

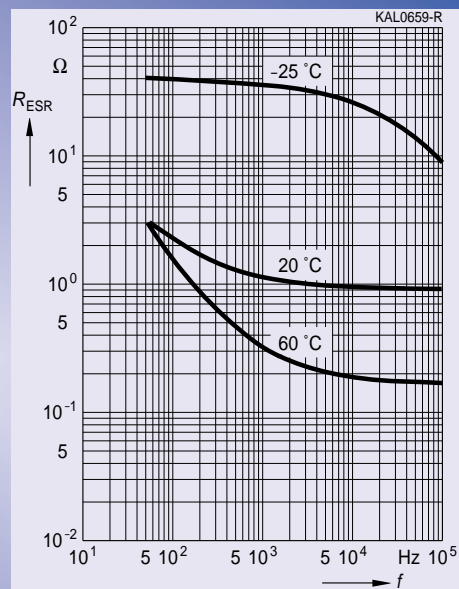
- Useful life depending on ambient temperature T_A under ripple current operating conditions
- Rated voltage U_R applied



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

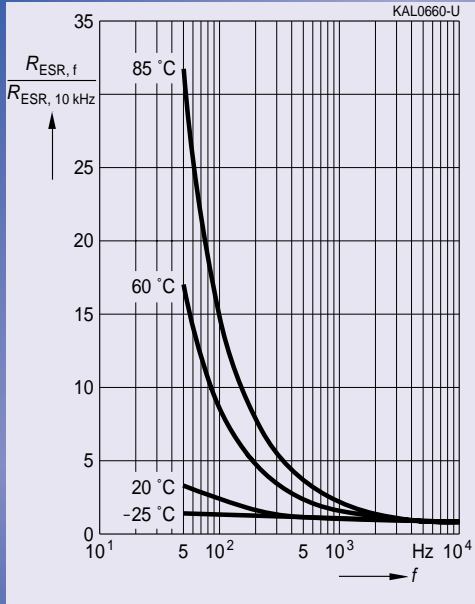


- Impedance Z versus frequency f at different temperatures
- Typical behavior for 22 μ F/450 V

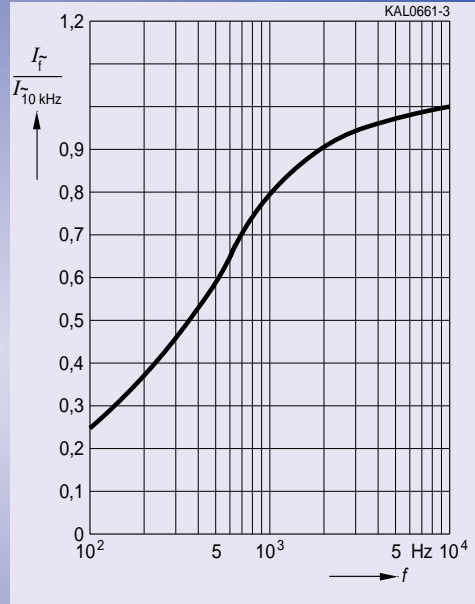


- Equivalent series resistance R_{ESR} versus frequency f at different temperatures
- Typical behavior for 22 μ F/450 V

Diagrams and Characteristics: B43699



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



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

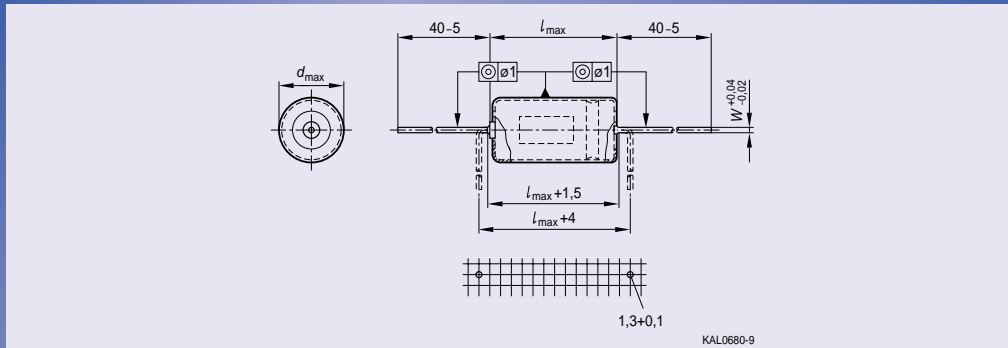
Technical Data and Ordering Code

| 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 |
|-------|-------|---------------------------------------|---|---|--|---|---|--|--|---------------------------------------|-------------------|---------------------|-------------------|
|-------|-------|---------------------------------------|---|---|--|---|---|--|--|---------------------------------------|-------------------|---------------------|-------------------|

B43699

| | | | | | | | | | | | | | |
|-----|----|---------|-----|-----|-----|-----|-----|------|------|------|-----------|-----------|-----------|
| 450 | 10 | 14 x 25 | 5.1 | 8.3 | 165 | 3.9 | 3.8 | 1.20 | 0.95 | 0.50 | A5106Q000 | A5106Q007 | A5106Q009 |
| | 15 | 14 x 30 | 3.4 | 5.5 | 110 | 2.6 | 2.5 | 1.60 | 1.25 | 0.67 | A5156Q000 | A5156Q007 | A5156Q009 |
| | 22 | 16 x 30 | 2.3 | 3.8 | 75 | 1.8 | 1.7 | 2.00 | 1.60 | 0.84 | A5226Q000 | A5226Q007 | A5226Q009 |
| | 33 | 16 x 39 | 1.6 | 2.5 | 50 | 1.2 | 1.1 | 2.80 | 2.20 | 1.15 | A5336Q000 | A5336Q007 | |
| | 47 | 18 x 39 | 1.1 | 1.7 | 35 | 0.9 | 0.8 | 3.50 | 2.75 | 1.45 | A5476Q000 | A5476Q007 | |

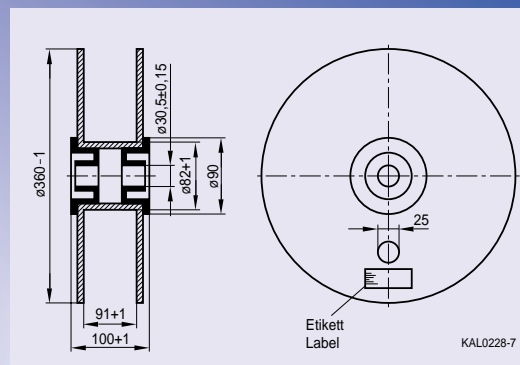
Dimensional Drawings



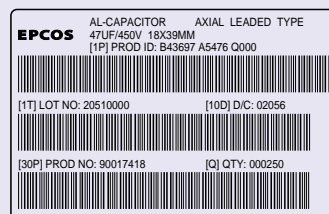
| Dimensions (mm) d x l | d _{max} x l _{max} | Approximate mass (g) | wire W (mm) | Packing units | | |
|--------------------------|-------------------------------------|-------------------------|----------------|---------------|-------------|---------------|
| | | | | Bulk (pcs.) | Reel (pcs.) | Pallet (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

Herausgegeben von EPCOS AG

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