



## UltraCap<sup>®</sup>

Single cell  
110 F/ 2.5 V

**Series/Type:**

**Ordering code:** B49410A2115Q000

**Date:** March 2005

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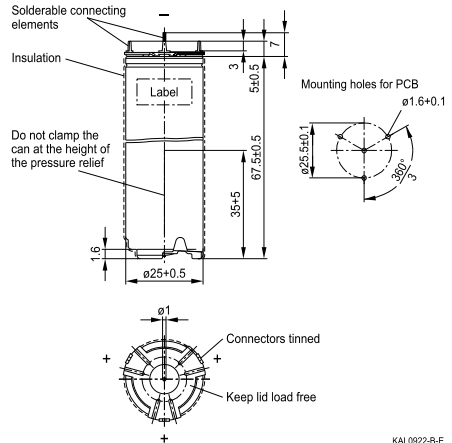
Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

**Features**

- Solder pin/4
- Power type
- Insulated with polyurethane
- Short-circuit-proof

**Note**

- Do not put into fire!
- Do not open the capacitor!
- To avoid health and fire hazards, do not operate the capacitor beyond the voltage or temperature limits given in the data sheet. Any excess may also result in a reduction of lifetime.
- Please pay also attention to the transport and waste disposal instructions in chapter "Cautions".

**Dimensional drawing**


KAL0922-B-E

Dimensions in mm

**Electrical specifications**

Rated capacitance	( $T_A = 25\text{ °C}$ ; DCC) <sup>1)</sup>	$C_R$	110	F
Tolerance of $C_R$			-10/+30	%
Rated voltage	( $T_A = 25\text{ °C}$ )	$V_R$	2.5	V
Capacity			80	mAh
Specific power	(IEC 62391-2)		2.5	kW/kg
Specific power	(IEC 62391-2)		3.1	kW/l
Stored energy	( $V = V_R$ )	E	344	J
Specific energy	( $V = V_R$ )		2.2	Wh/kg
Specific energy	( $V = V_R$ )		2.8	Wh/l
Surge voltage		$V_{\text{surge}}$	2.8	V
Maximum series resistance	( $T_A = 25\text{ °C}$ ; 1 kHz)	ESR	3	mΩ
Maximum series resistance	( $T_A = 25\text{ °C}$ ; 50 mHz)	ESR <sub>DC</sub>	7	mΩ
Weight			43	g
Volume			0.035	l
Operating temperature range		$T_{\text{op}}$	-30/+70	°C
Storage temperature	( $V = 0\text{ V}$ )	$T_{\text{st}}$	-40/+70	°C
Lifetime (hours) <sup>2)</sup>	( $T_A = 25\text{ °C}$ ; $V = V_R$ )		90000	h
Lifetime (cycles) <sup>3)</sup>	( $T_A = 25\text{ °C}$ ; $I = 4\text{ A}$ )		500000	cycles

1) DCC: discharging with constant current.

 2) Requirements:  $|\Delta C/C_R| \leq 30\%$ ,  $\text{ESR} \leq 2$  times of specified limit,  $I_{\text{leak}} \leq 2$  times of initial value.

 3) Requirements:  $|\Delta C/C_R| \leq 30\%$ ,  $\text{ESR} \leq 2$  times of specified limit,  $I_{\text{leak}} \leq 2$  times of initial value (1 cycle: charging to  $V_R$ , 30 s rest, discharging to  $V_R/2$ , 30 s rest).