

# **UltraCap**<sup>®</sup>

Single cell 5000 F/ 2.5 V

Series/Type:

Ordering code: B49410B2506Q000

Date: March 2005

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### Single cell, 5000 F/ 2.5 V

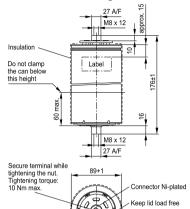
#### **Features**

- Screw terminals M8 × 12
- 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**



KUC0019-W-E

Dimensions in mm

#### **Electrical specifications**

Rated capacitance	(T <sub>A</sub> = 25 °C; DCC) 1)	C <sub>R</sub>	5000	F
Tolerance of C <sub>R</sub>			-10/+30	%
Rated voltage	(T <sub>A</sub> = 25 °C)	$V_R$	2.5	V
Capacity			3500	mAh
Specific power	(IEC 62391-2)		2.0	kW/kg
Specific power	(IEC 62391-2)		2.3	kW/I
Stored energy	$(V = V_R)$	E	15625	J
Specific energy	$(V = V_R)$		4.1	Wh/kg
Specific energy	$(V = V_B)$		4.7	Wh/I
Surge voltage		$V_{\text{surge}}$	2.8	V
Maximum series resistance	(T <sub>A</sub> = 25 °C; 1 kHz)	ESR	180	μΩ
Maximum series resistance	$(T_A = 25  ^{\circ}C; 50  \text{mHz})$	ESR <sub>DC</sub>	350	μΩ
Weight			1050	g
Volume	(without terminals)		0.93	1
Operating temperature range		T <sub>op</sub>	-30/+70	°C
Storage temperature	(V = 0 V)	T <sub>st</sub>	-40/+70	°C
Lifetime (hours) 2)	$(T_A = 25  {}^{\circ}C; V = V_B)$		90000	h
Lifetime (cycles) 3)	$(T_A = 25  ^{\circ}C; I = 100  A)$		500000	cycles

<sup>1)</sup> DCC: discharging with constant current.

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

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