EPCOS

UltraCap®

Module
9 F/ 28 V

Series/Type:
Ordering code: **B48611A5903Q012**
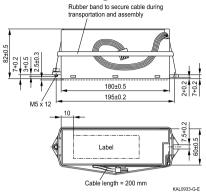Date: March 2005

Features

- Cable connector
- Passive cell voltage balancing
- Case material polyethylene, black
- Power type
- 12 serial single cells of 110 F
- Maintenance-free
- Short-circuit-proof
- Fast-acting blowout fuse 20 A

Note

- Please pay attention to the safety, transport and waste disposal instructions in chapter "Cautions".

Dimensional drawing

Rubber band to secure cable during transportation and assembly

82±0.5
7+0.2
3+0.5
2.5±0.3
M5 x 12
180±0.5
195±0.2
2+0.2
7+0.2
10
Label
7.5±0.2
60±0.5
Cable length = 200 mm

KAL0933-G-E

Dimensions in mm

Electrical specifications

Rated capacitance	(T_A = 25 °C; DCC) [1]	C_R	9	F
Tolerance of C_R			$-10/+30$	%
Rated voltage	(T_A = 25 °C)	V_R	28	V
Capacity			70	mAh
Specific power	(IEC 62391-2)		1.0	kW/kg
Specific power	(IEC 62391-2)		0.9	kW/l
Stored energy	($V = V_R$)	E	3528	J
Specific energy	($V = V_R$)		1.3	Wh/kg
Specific energy	($V = V_R$)		1.1	Wh/l
Surge voltage		V_{surge}	32	V
Maximum series resistance	(T_A = 25 °C; 1 kHz)	ESR	60	mΩ
Maximum series resistance	(T_A = 25 °C; 50 mHz)	ESR_{DC}	120	mΩ
Weight			0.75	kg
Volume			0.9	l
Operating temperature range		T_{op}	$-30/+70$	°C
Storage temperature	($V = 0$ V)	T_{st}	$-40/+70$	°C
Lifetime (hours) [2]	(T_A = 25 °C; $V = V_R$)		90000	h
Lifetime (cycles) [3]	(T_A = 25 °C; I = 10 A)		500000	cycles

1) DCC: discharging with constant current.

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

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