

Type CDLC Snap-In, Carboncap Power Ultracapacitors

Large Cylindrical Type



These low RC time constant, organic electrolyte, large cell ultracapacitors easily handle more than a half million duty cycles and solder readily onto circuit boards using snap-in terminals. They are especially suited for back-up and pulse power applications such as grid stabilization and wind turbine pitch control. Snap mount cells are ideal for portable devices, hybrid energy storage, and emergency lighting.

Highlights

- Board Mountable
- Solderable

Specifications

Operating Temperature Range	-40 °C to +65 °C
Storage Temperature Range	-40 °C to +70 °C
Rated Voltage Range	2.7 Vdc, 2.85 Vdc rated surge
Capacitance Range	100 F to 600 F
Capacitance Tolerance	-5% / +10%
Life at Room Temperature	10 years at rated voltage and 25 °C Capacitance change ≤20% ESR change ≤100%
Life Test	1000 h @ rated voltage and +65 °C Capacitance change ≤20% decrease from min. initial value ESR change ≤100% increase from max. initial value
Cycle Test	1,000,000 cycles (rated to half rated voltage at +25 °C) Capacitance change ≤20% ESR change ≤100%
Shelf Life	1000 h without voltage at +70 °C Capacitance change ≤20% from min. initial capacitance ESR change ≤100% from max. initial ESR
RoHS Compliant	

Ratings

Part Number	CDLC101K2R7SR	CDLC351K2R7SR	CDLC401K2R7SR	CDLC601K2R7SR
Terminal Configuration	Snap In	Snap In	Snap In	Snap In
Capacitance (F) (Discharge w constant current at 25°C)	100	350	400	600
ESR, DC (mΩ), Max	4.2	3.2	3.2	3.2
Current - Max Peak (A) (1 s discharge rate to 50% of rated Voltage)	95	223	237	277
Leakage current (mA), Max after 72 h at +25 °C	0.27	1	1.2	1.5
Usable Power Density, Pd (kW/kg) (Per IEC 62391-2)	10.2	4.1	3.6	2.9
Usable Power (W)	208	273	273	273
Impedance match power, (kW/kg)	21.7	8.6	7.4	5.9
Gravimetric energy density, Emax (Wh/kg)	5.1	5.4	5.3	6.3
Energy available (Wh) (At rated voltage)	0.1	0.35	0.41	0.61
Weight (kg)	0.02	0.066	0.077	0.096
Maximum Continuous Current (Amps) (ΔT=20°C)	13	24	24	28
Short circuit current (A)	643	844	844	844

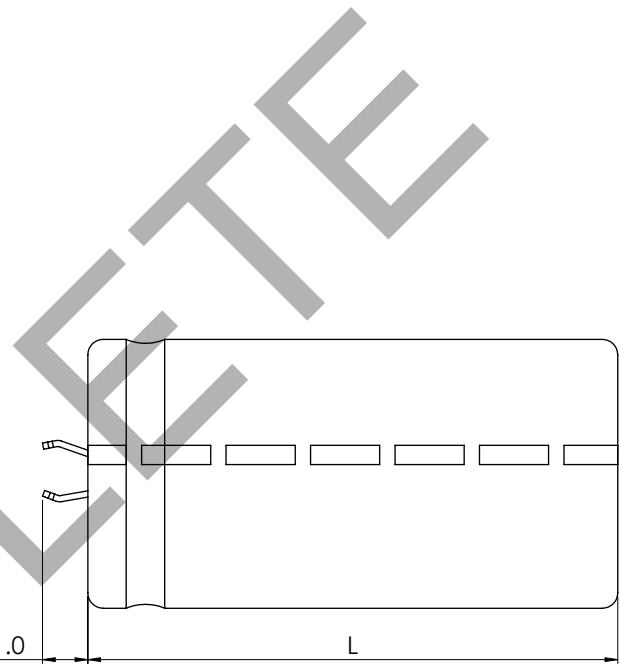
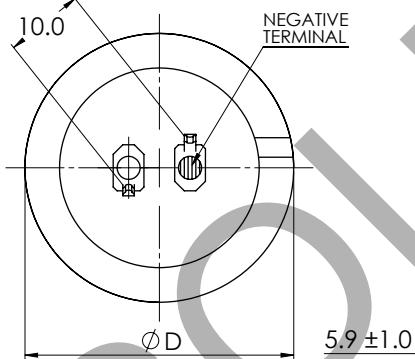
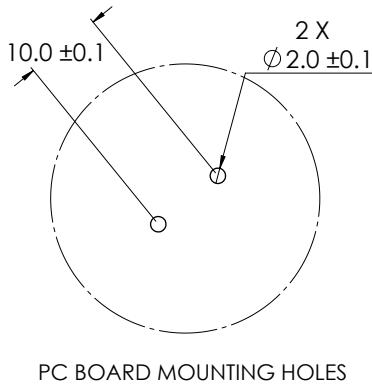
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Part Numbering System

CDLC	101	K	2R7	SR
Type	Capacitance (F)	Tolerance (%)	Voltage (V)	Configuration
CDLC - Carbon Double Layer Cell	101=100	K= -5 /+10%	2R7 = 2.7	SR = snap-in, 2 pins

Outline Drawing and Dimensions



Snap-In Type Part Number	Dimensions (mm)	
	D (+1/-0 mm)	L (±2 mm)
CDLC101K2R7SR	22	45
CDLC351K2R7SR	35	59
CDLC401K2R7SR	35	69
CDLC601K2R7SR	35	89

Do not reverse polarity.

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OBSOLETE