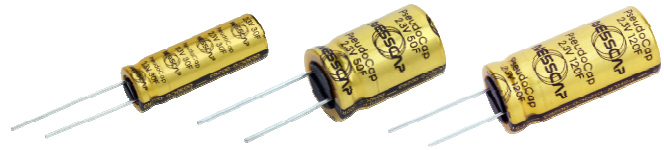




NESSCAP® Ultracapacitor Products

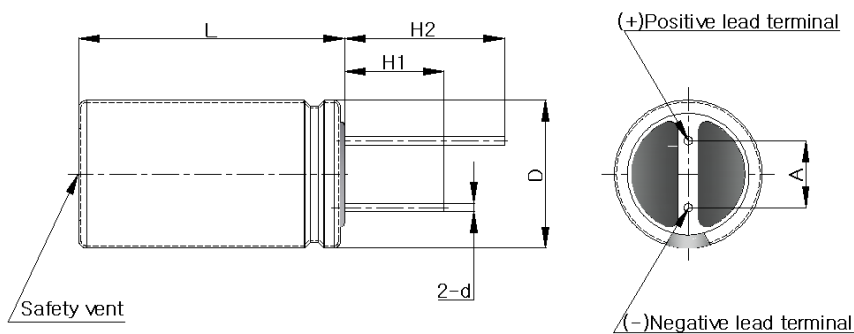
Features

Pseudocapacitor
Two lead terminals and radial design
Compliant with RoHS requirement (Ex : Cd, Pb)



Dimension

Dimension in mm (not to scale)



Capacitance	Dimension (mm)					
	D (+0.5)	L (+1.5)	H1 (min)	H2 (min)	d (±0.05)	A (±0.5)
30F	10	30	15	19	0.6	5.0
50F	16	25	15	19	0.8	7.5
120F	18	40	15	19	0.8	7.5

Product & Spec.

Rated Capacitance	Internal Resistance (mΩ)		Max. Current (A)	Leakage Current (mA)	Stored Energy (Wh)	Specific Energy (Wh/kg)	Weight (g)	Part Number
	AC(1kHz)	DC						
Discharge with constant current at 25°C			1 sec discharge rate to 1/2V _R	72hours, 25°C	at V _R	Gravimetric		
30F	< 32	< 48	14.1	0.044	0.022	5.95	3.7	PSHLR-0030C0-002R3
50F	< 24	< 36	20.5	0.076	0.037	4.87	7.6	PSHLR-0050C0-002R3
120F	< 18	< 27	32.5	0.172	0.088	5.87	15.0	PSHLR-0120C0-002R3

Rated Voltage, V _R	2.3 V	
Surge Voltage	2.5 V	
Capacitance Tolerance	-10% / +20%	
Operating Temperature Range	-25 ~ 60 °C	ΔC < 30% and ΔESR < 4 times of initially measured value at 25°C, respectively
Storage Temperature Range	-30 ~ 70 °C	
Life Time at RT ⁽¹⁾	10 years	(1) ΔC < 30% and ΔESR < 2 times of initially specified value , respectively and LC < specified value
Cycle Life (25°C) ⁽¹⁾⁽²⁾	100,000 cycles	(2) Cycle : between rated voltage and half rated voltage under constant current at 25°C

* Life time is provisional value

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ISO 9001, ISO 14001, TS 16949



NESSCAP® Ultracapacitor Products

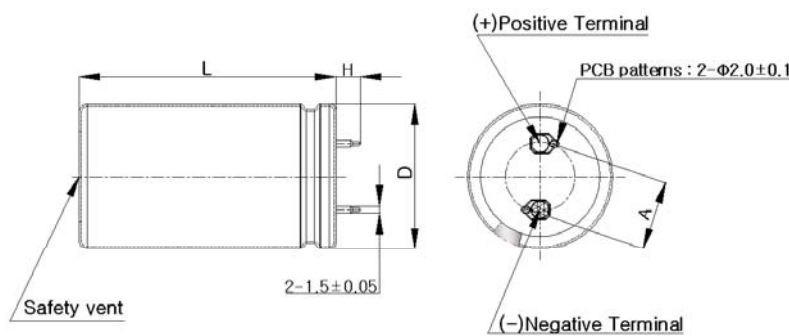
Features

Pseudocapacitor
Two snap-in terminals and radial design
Compliant with RoHS requirement (Ex : Cd, Pb)



Dimension

Dimension in mm (not to scale)



Capacitance	Dimension (mm)			
	D (+1.0)	L (+2.0)	H (±1.0)	A (±0.2)
220F	22	45	6.0	10.0
300F	22	50	6.0	10.0

Product & Spec.

Rated Capacitance	Internal Resistance (mΩ)		Max. Current (A)	Leakage Current (mA)	Stored Energy (Wh)	Specific Energy (Wh/kg)	Weight (g)	Part Number
	AC(1kHz)	DC	1 sec discharge rate to 1/2V _R	72hours, 25°C	at V _R	Gravimetric		
220F	< 14	< 21	45.0	0.52	0.162	7.04	23.0	PSHLR-0220C0-002R3
300F	< 12	< 18	53.9	0.96	0.220	8.73	25.2	PSHLR-0300C0-002R3

Rated Voltage, V _R	2.3 V	
Surge Voltage	2.5 V	
Capacitance Tolerance	-10% / +20%	
Operating Temperature Range	-25 ~ 60 °C	ΔC <30% and ΔESR < 4 times of initially measured value at 25°C, respectively
Storage Temperature Range	-30 ~ 70 °C	
Life Time at RT ⁽¹⁾	10 years	(1) ΔC < 30% and ΔESR < 2 times of initially specified value , respectively and LC < specified value
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