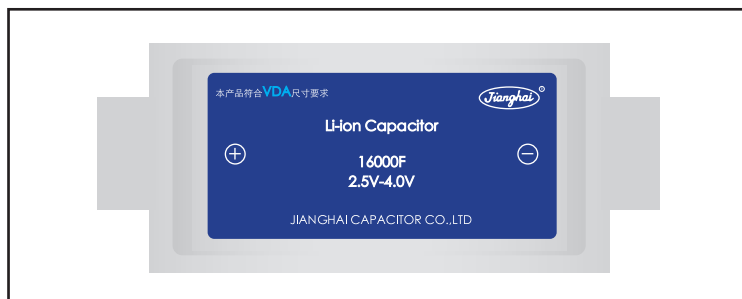


## Features

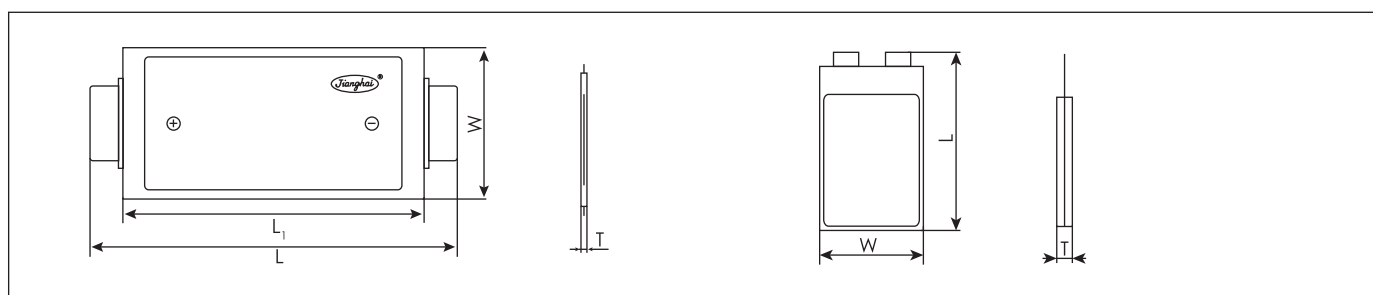
- Lower ESR
- Wider temperature range
- High energy density
- High power density
- RoHS compliant



Items	Characteristics		
Rated Voltage	2.5V~4.0V		
Operating Temperature Range	-25 ~+55°C		
Surge Voltage	4.35V		
Capacitance Range	1000~16000 F		
Capacitance Tolerance (25°C)	-20~+20%		
Temperature Characteristics	The specifications shall be met at category temperature range form -25°C to 55°C	Capacitance Change	Within 40% of the value at 25°C
		ESR	Less than 400% of the value at 25°C
High Temperature Loaded	The specifications shall be met after rated voltage applied at 55°C for 1000 hours	Capacitance Change	Within 20% of the initial value
		ESR	Less than 200% of the initial value
High Temperature Storage	The specifications shall be met after storage at 55°C for 1000 hours	Capacitance Change	Within 20% of the initial value
		ESR	Less than 200% of the initial value
Cycle Life	The specifications shall be met after 50,000 cycles at 25°C, cycle of charge/discharge from 2.5~4.0V	Capacitance Change	Within 20% of the initial value
		ESR	Less than 200% of the initial value

## Dimensions

mm



## Standard Ratings for HAA Series

U <sub>R</sub> (Surge Voltage) Code	Rated Capacitance 25°C	Impedance		Rated Current	Self-discharge (72hrs)	Dimension (L×W×T)	P/N
		ESR <sub>DC</sub>	ESR <sub>AC</sub> 1KHz				
(V)	(F)	(mΩ)	(mΩ)	(A)	(V)	(mm)	-
4.0 (4.35) 4R0	1000	≤20	≤9	5	≥3.92	100 × 71 × 3.0	SCCHAA4R0108M
	2000	≤9	≤5	10	≥3.92	100 × 71 × 5.5	SCCHAA4R0208M
	3200	≤5.5	≤3	16	≥3.92	100 × 60 × 9.0	SCCHAA4R0328M
	6000	≤3.5	≤2.5	30	≥3.92	295 × 123 × 3.5	SCCHAA4R0608M
	10000	≤1.8	≤1.2	50	≥3.92	295 × 123 × 5.5	SCCHAA4R0109M
	16000	≤1.2	≤1.0	50	≥3.92	295 × 123 × 8.0	SCCHAA4R0169M