

Series-Connected Supercapacitor Module, 7.5V



ADCM-S07R5S

Request Samples



Check Inventory



Various Sizes

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Assembled Type Supercapacitor
- Series connected 3-Cell configuration.
- No balancing required.
- High power density
- Minimal discharge rate, 72 hours @ discharge<20%
- Excellent cycle life
- Green, meet RoHS requirements.
- 85°C operation at derated voltage of 6.4V

Applications

- Power Assist Circuits
- Power Backup
- Micro Energy Storage
- IoT Energy Harvesting
- SSD applications
- DDR power back up
- RTC System power transfer to battery backup

Electrical Specifications

Part Number	Nominal Voltage (U _R)	Capacitance	Tol.	ESR (Max)	Nominal Current	Peak Current (Max)	Leakage Current (Max)	Stored Energy (Max)	Gravimetric Energy Density	Gravimetric Power Density
ADCM-S07R5S	DC(V)	Farads	±%	Ω	A	A	uA	mWh	Wh/kg	KW/kg
ADCM-S07R5SA224WB	7.5	0.22	0/+40	1.35	0.16	0.64	4	1.72	0.57	3.47
ADCM-S07R5SA334RB	7.5	0.33	0/+30	1.35	0.23	0.86	5	2.58	0.75	3.02
ADCM-S07R5SA105QB	7.5	1.00	-10/+20	0.720	0.66	2.18	10	7.81	1.63	4.07

Operating Temperature: -40°C to +70°C (+85°C @ 6.4V U_R), RH<60%

Storage Temperature: -40°C to +70°C, RH<60%, Max. Humidity <85% RH

Test Conditions:

All parameters are measured according to the IEC 62391-1 standard.

Ambient Temperature: +25°C

Capacitance: measured with $I(mA) = 4(C * U_R)$.

ESR: Measured at 1KHz.

Maximum Surge Voltage: $7.8V \leq 30$ seconds

Nominal Current: 5 Seconds to discharge from U_R to 1/2U_R.

Peak Current (Max.): 1 second to discharge to U_R to 1/2U_R.

Leakage Current: Measured after 72h at U_R.

Life Cycles: 500,000 cycles with less than 30% change in capacitance.



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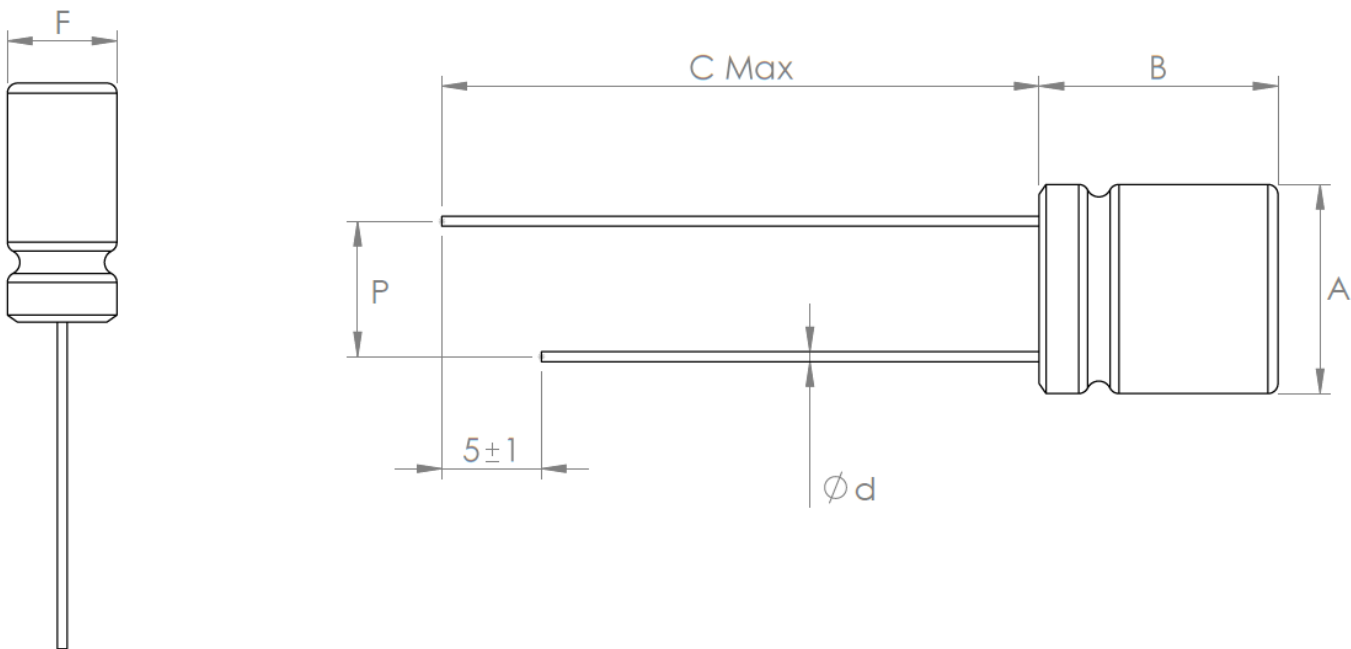


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Mechanical Specifications



ABRACON PART#	SIZE (A x F x B) ±1	Pin Spacing P	Pin Length C (MAX)	Pin Diameter Ød
ADCM-S07R5SA224WB	24.5 x 8.5 x 15	13.3 ±0.5	30	0.6 ±0.1
ADCM-S07R5SA334RB	24.5 x 8.5 x 15	13.3 ±0.5	30	0.6 ±0.1
ADCM-S07R5SA105QB	24.5 x 8.5 x 22	13.3 ±0.5	30	0.6 ±0.1

Dimensions: mm

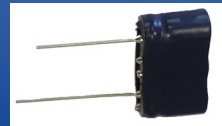


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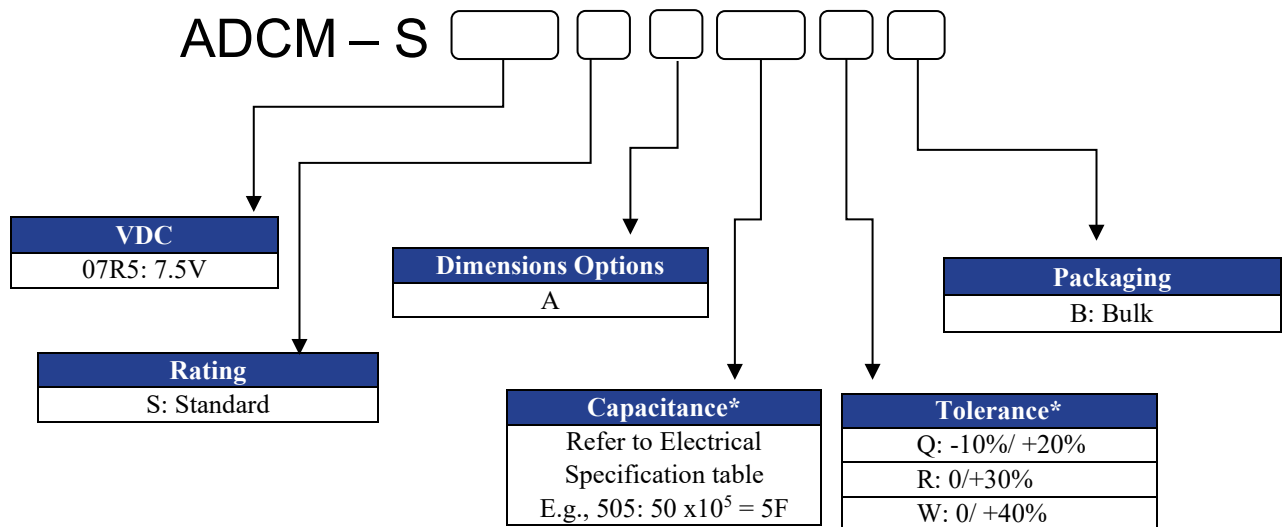


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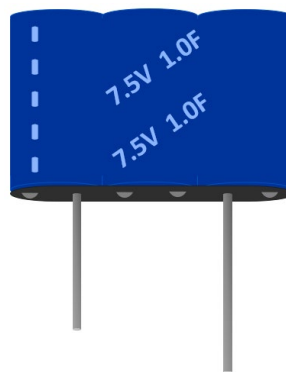
MSL Level = 1

Part Number Identification



*Only part numbers listed in the Electrical Specs table are available. For custom builds, please contact us.

Part Marking



Example of the Marking of a 7.5V 1.0F Supercapacitor

Capacitance (F)

Rated Voltage (V)

Polarity (negative indicator bar on the sleeve to indicate the cathode)



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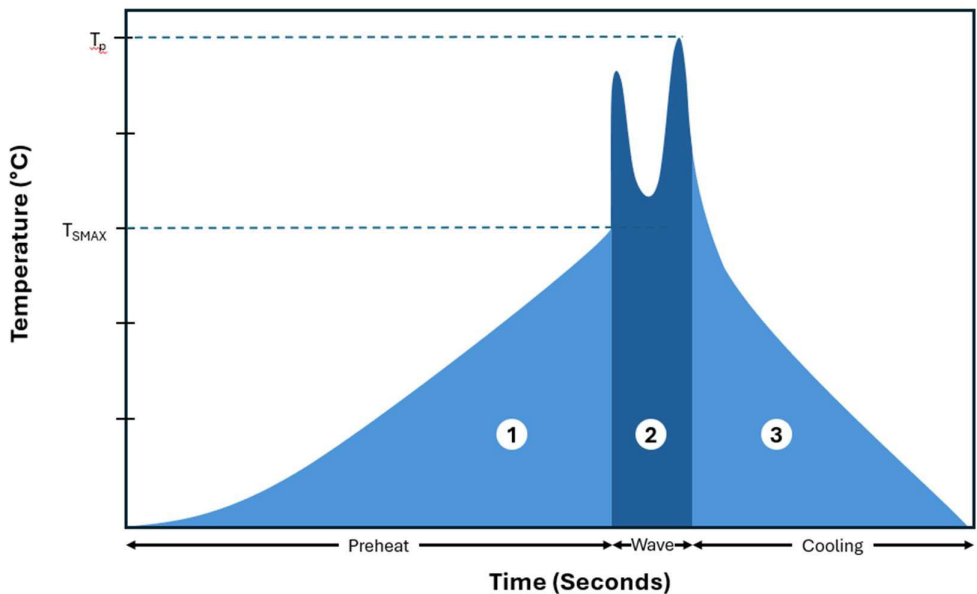


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Wave Soldering Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 25°C ~ 130°C	80 sec. MAX
	Preheat Rate	$T_{PREHEAT}$ +4°C/Sec MAX	
2	Wave Temperature	T_w 245°C ~ 260°C	10 sec. MAX Dual wave
	Wave Peak Temperature	T_P 260°C	5 sec. MAX/wave
3	Cooling Rate	$T_{COOLING}$	-5°C/Sec MAX



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Packaging

The product is packaged in a carton containing multiple inner boxes, each containing several trays.

Part Number	Pcs/Box	Pcs/Carton
ADCM-S07R5SA224WB	341	1023
ADCM-S07R5SA334RB	149	447
ADCM-S07R5SA105QB	149	447

Transport of Product

This product is not subject to US DOT or IATA regulations UN3499 since maximum stored energy is below 10Wh and can be considered Non-Hazardous Goods. Please refer to the [Abracon | UN/IATA Transportation Guidelines](#) for more information.

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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