

# 5.5V Coin Supercapacitor, Vertical



ADCV-S05R5S

Request Samples



Check Inventory



Various Sizes

RoHS/RoHS II Compliant

MSL Level = 1

## Features

- Coin Type Supercapacitor
- Vertical Configuration
- High power density
- Minimal discharge rate, 72 hours @ discharge < 20%
- Excellent cycle life
- Green, meet RoHS requirements

## 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 <sub>R</sub> )	Capacitance	Tol.	ESR (Max)	Nominal Current	Peak Current (Max)	Leakage Current (Max)	Stored Energy (Max)	Gravimetric Energy Density	Volumetric Energy Density
ADCV-S05R5S	DC(V)	Farads	±%	Ω	A	A	uA	mWh	Wh/kg	Wh/L
ADCV-S05R5SA473W	5.5V	0.047	-20%/ 100%	120	0.010	0.014	3	0.197	0.156	0.380
ADCV-S05R5SA104X	5.5V	0.1	-20%/ 150%	50	0.022	0.032	3	0.420	0.303	0.809
ADCV-S05R5SA224W	5.5V	0.22	-20%/ 100%	40	0.033	0.043	4	0.924	0.707	1.780
ADCV-S05R5SA334Z	5.5V	0.33	-20%/ 80%	40	0.037	0.044	5	1.386	0.998	2.670
ADCV-S05R5SA474Q	5.5V	0.47	-10%/ 30%	40	0.039	0.044	6	1.975	1.412	3.802
ADCV-S05R5SA105R	5.5V	1	0/+30%	15	0.100	0.117	8	4.201	1.004	2.833
ADCV-S05R5SA155R	5.5V	1.5	0/+30%	10	0.150	0.176	12	6.302	1.488	4.249

**Operating Temperature:** -25°C to +70°C

**Storage Temperature:** -30°C to +50°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.

**Nominal Current:** 5 Seconds to discharge from U<sub>R</sub> to 1/2U<sub>R</sub>.

**Peak Current (Max.):** 1 second to discharge to U<sub>R</sub> to 1/2U<sub>R</sub>.

**Leakage Current:** Measured after 72h at U<sub>R</sub>.

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



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**ADCV-S05R5S**

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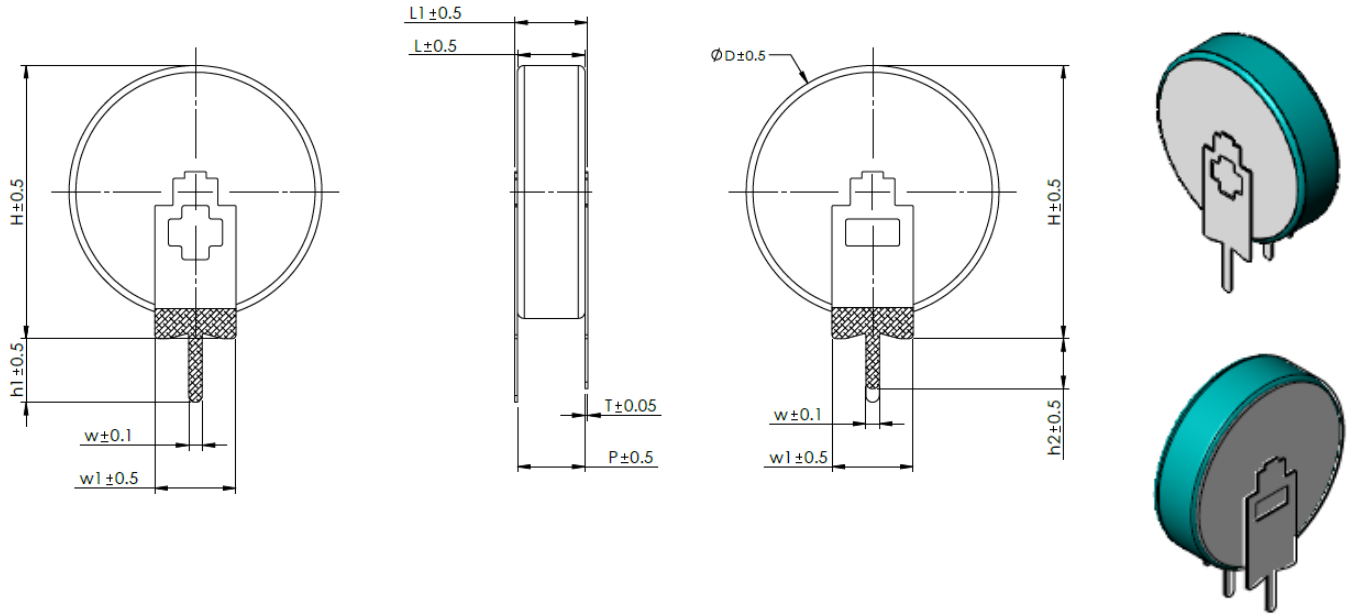


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## Mechanical Specifications



ABRACON PART#	SIZE D x L x H	TOTAL THICKNESS L1	PIN SPACING P	PIN WIDTH w/w1	PIN LENGTH h1/h2	LEAD THICKNESS T
ADCV-S05R5SA473W	11.5 x 4.6 x 12.3	5.0	4.7	1/3.0	4.7/3.7	0.2
ADCV-S05R5SA104X	11.5 x 4.6 x 12.3	5.0	4.7	1/3.0	4.7/3.7	0.2
ADCV-S05R5SA224W	11.5 x 4.6 x 12.3	5.0	4.7	1/3.0	4.7/3.7	0.2
ADCV-S05R5SA334Z	11.5 x 4.6 x 12.3	5.0	4.7	1/3.0	4.7/3.7	0.2
ADCV-S05R5SA474Q	11.5 x 4.6 x 12.3	5.0	4.7	1/3.0	4.7/3.7	0.2
ADCV-S05R5SA105R	18.7 x 5.0 x 20.2	5.4	5.0	1/6.0	4.7/3.7	0.2
ADCV-S05R5SA155R	18.7 x 5.0 x 20.2	5.4	5.0	1/6.0	4.7/3.7	0.2

Dimensions: mm



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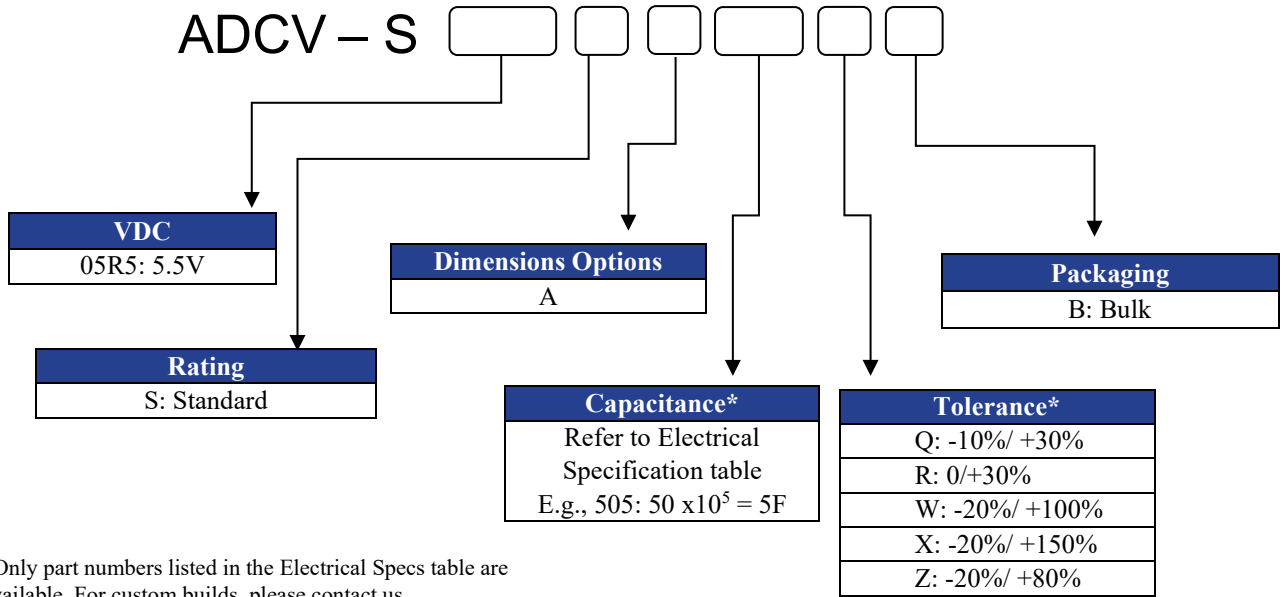


Various Sizes

RoHS/RoHS II Compliant

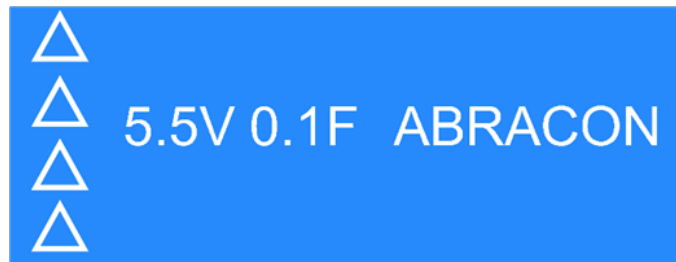
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## Part Number Identification



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

## Part Marking



Example of the Markings of a 5.5V 0.1F supercapacitor

Capacitance (F)

Rated Voltage (V)

Polarity (negative bar on the sleeve to indicate the cathode). (The bar might look slightly different for 1.0F and 1.5F parts)



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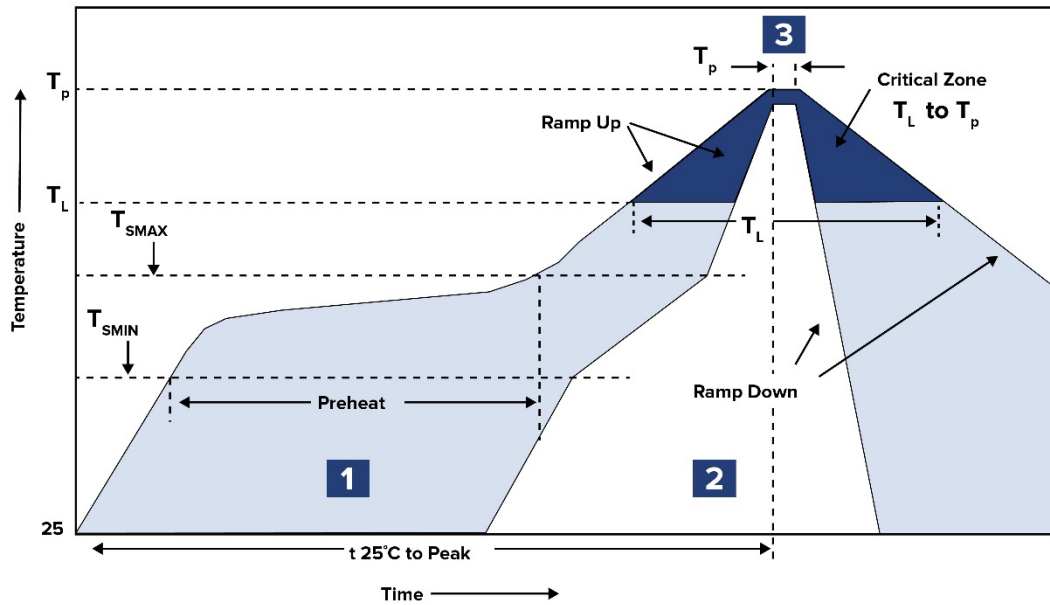


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 100°C ~ 150°C	60 ~ 120 sec.
2	Reflow	$T_L$ 200°C	30 ~ 40 sec.
3	Peak heat	$T_p$ 240°C±5°C	5 sec. MAX

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## Packaging

Part Number	Quantity (PCS/Box)
ADCV-S05R5SA473WB	1456
ADCV-S05R5SA104XB	1456
ADCV-S05R5SA224WB	1232
ADCV-S05R5SA334ZB	1232
ADCV-S05R5SA474QB	1204
ADCV-S05R5SA105RB	1134
ADCV-S05R5SA155RB	1134

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