

#### ADCC-S05R5S

Request Samples



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Various Sizes **RoHS/RoHS II Compliant** MSL Level = 1

#### **Features**

- Coin Type Supercapacitor
- Horizontal, Center pins
- High power density
- Minimal discharge rate, 72 hours @ discharge<20%
- Excellent cycle life
- Green, meets 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	Stored Energy (Max)	Gravimetric Energy Density	Volumetric Energy Density
ADCC-S05R5S	DC(V)	Farads	±%	Ω	Α	Α	uA	mWh	Wh/kg	Wh/L
ADCC-S05R5SA473W	5.5V	0.047	-20%/ 100%	120	0.010	0.014	3	0.197	0.065	0.229
ADCC-S05R5SA104X	5.5V	0.1	-20%/ 150%	50	0.022	0.032	3	0.420	0.139	0.487
ADCC-S05R5SA224W	5.5V	0.22	-20%/ 100%	40	0.033	0.043	4	0.924	0.305	1.071
ADCC-S05R5SA334Z	5.5V	0.33	-20%/ 80%	40	0.037	0.044	5	1.386	0.458	1.607
ADCC-S05R5SA474Q	5.5V	0.47	-10%/ 30%	40	0.039	0.044	6	1.975	0.652	2.289
ADCC-S05R5SA105R	5.5V	1	0/+30%	15	0.100	0.117	8	4.201	0.505	1.720
ADCC-S05R5SA155R	5.5V	1.5	0/+30%	10	0.150	0.176	12	6.302	0.757	2.580

**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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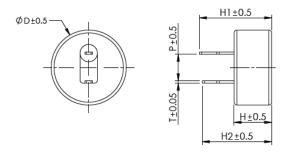
Check Inventory (>)



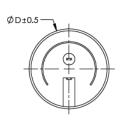
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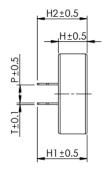
## **Mechanical Specifications**

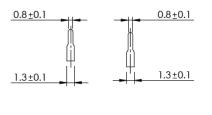
13 X 6.5MM



20.5 X 7.4MM















ABRACON PART#	SIZE D x H	PIN SPACING P	ANODE (+) LENGTH H2	CATHODE (-) LENGTH H1	LEAD THICKNESS T
ADCC-S05R5SA473W	13X6.5	5	12	12.5	0.4
ADCC-S05R5SA104X	13X6.5	5	12	12.5	0.4
ADCC-S05R5SA224W	13X6.5	5	12	12.5	0.4
ADCC-S05R5SA334Z	13X6.5	5	12	12.5	0.4
ADCC-S05R5SA474Q	13X6.5	5	12	12.5	0.4
ADCC-S05R5SA105R	20.5X7.4	5	12.8	12.8	0.45
ADCC-S05R5SA155R	20.5X7.4	5	12.8	12.8	0.45

**Dimensions: mm** 



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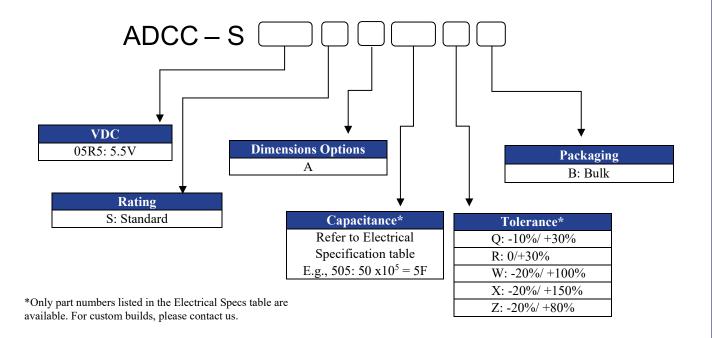


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#### **Part Number Identification**



### **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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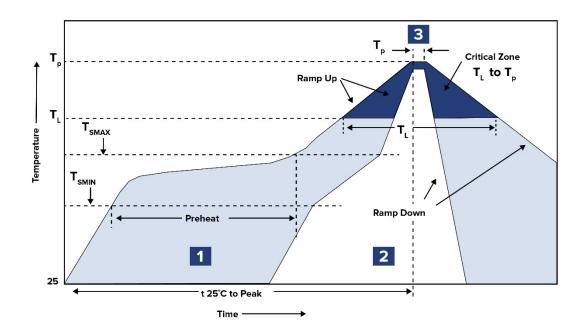


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#### **Reflow Profile**



Zone	Description	Temperature	Times
1	Preheat	$\begin{split} T_{SMIN} \sim T_{SMAX} \\ 100^{\circ}C \sim 150^{\circ}C \end{split}$	$60 \sim 120 \text{ sec.}$
2	Reflow	${ m T_L}  m 200^{\circ}C$	$30 \sim 40$ sec.
3	Peak heat	Т <sub>Р</sub> 240°С±5°С	5 sec. MAX





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## **Packaging**

Part Number	Quantity (PCS/Box)
ADCC-S05R5SA473W	748
ADCC-S05R5SA104X	748
ADCC-S05R5SA224W	748
ADCC-S05R5SA334Z	748
ADCC-S05R5SA474Q	748
ADCC-S05R5SA105R	352
ADCC-S05R5SA155R	352

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