

5.5V Coin Supercapacitor, Horizontal



ADCH-S05R5S

Request Samples



Check Inventory



Various Sizes

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Coin Type Supercapacitor
- Horizontal 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_R)	Capacitance	Tol.	ESR (Max)	Nominal Current	Peak Current (Max)	Leakage Current (Max)	Stored Energy (Max)	Gravimetric Energy Density	Volumetric Energy Density
ADCH-S05R5S	DC(V)	Farads	±%	Ω	A	A	uA	mWh	Wh/kg	Wh/L
ADCH-S05R5SA473W	5.5V	0.047	-20%/ 100%	120	0.010	0.014	3	0.197	0.146	0.380
ADCH-S05R5SA104X	5.5V	0.1	-20%/ 150%	50	0.022	0.032	3	0.420	0.311	0.809
ADCH-S05R5SA224W	5.5V	0.22	-20%/ 100%	40	0.033	0.043	4	0.924	0.685	1.780
ADCH-S05R5SA334Z	5.5V	0.33	-20%/ 80%	40	0.037	0.044	5	1.386	1.027	2.670
ADCH-S05R5SA474Q	5.5V	0.47	-10%/ 30%	40	0.039	0.044	6	1.975	1.463	3.802
ADCH-S05R5SA105R	5.5V	1	0/+30%	15	0.100	0.117	8	4.201	0.977	2.886
ADCH-S05R5SA155R	5.5V	1.5	0/+30%	10	0.150	0.176	12	6.302	1.466	4.329

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_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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REVISION Initial Release :
8/18/2023

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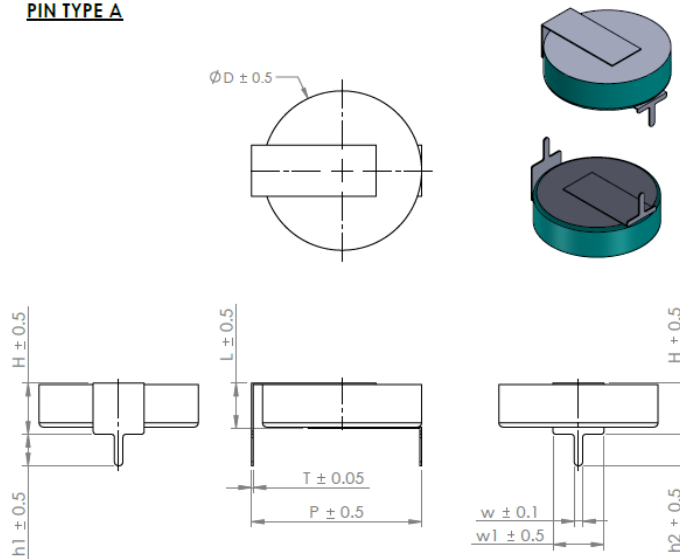
Various Sizes

RoHS/RoHS II Compliant

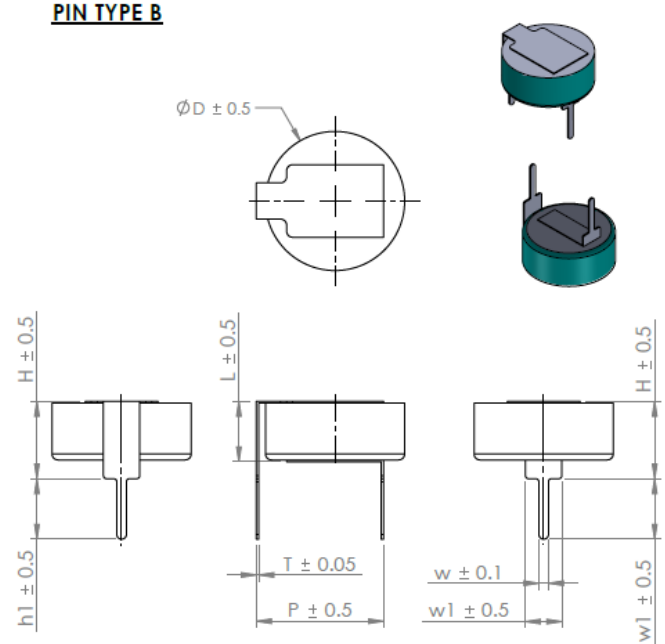
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Mechanical Specifications

PIN TYPE A



PIN TYPE B



ABRACON PART#	PIN TYPE	SIZE D x L x H	PIN SPACING P	PIN WIDTH w/w1	PIN LENGTH h1/h2	LEAD THICKNESS T
ADCH-S05R5SA473W	B	11.5 x 5.0 x 6.4	10.5	0.8/3.0	5.0/5.0	0.2
ADCH-S05R5SA104X	B	11.5 x 5.0 x 6.4	10.5	0.8/3.0	5.0/5.0	0.2
ADCH-S05R5SA224W	B	11.5 x 5.0 x 6.4	10.5	0.8/3.0	5.0/5.0	0.2
ADCH-S05R5SA334Z	B	11.5 x 5.0 x 6.4	10.5	0.8/3.0	5.0/5.0	0.2
ADCH-S05R5SA474Q	B	11.5 x 5.0 x 6.4	10.5	0.8/3.0	5.0/5.0	0.2
ADCH-S05R5SA105R	A	18.7 x 5.3 x 6.0	20	1/6.0	3.7/3.7	0.2
ADCH-S05R5SA155R	A	18.7 x 5.3 x 6.0	20	1/6.0	3.7/3.7	0.2

Dimensions: mm



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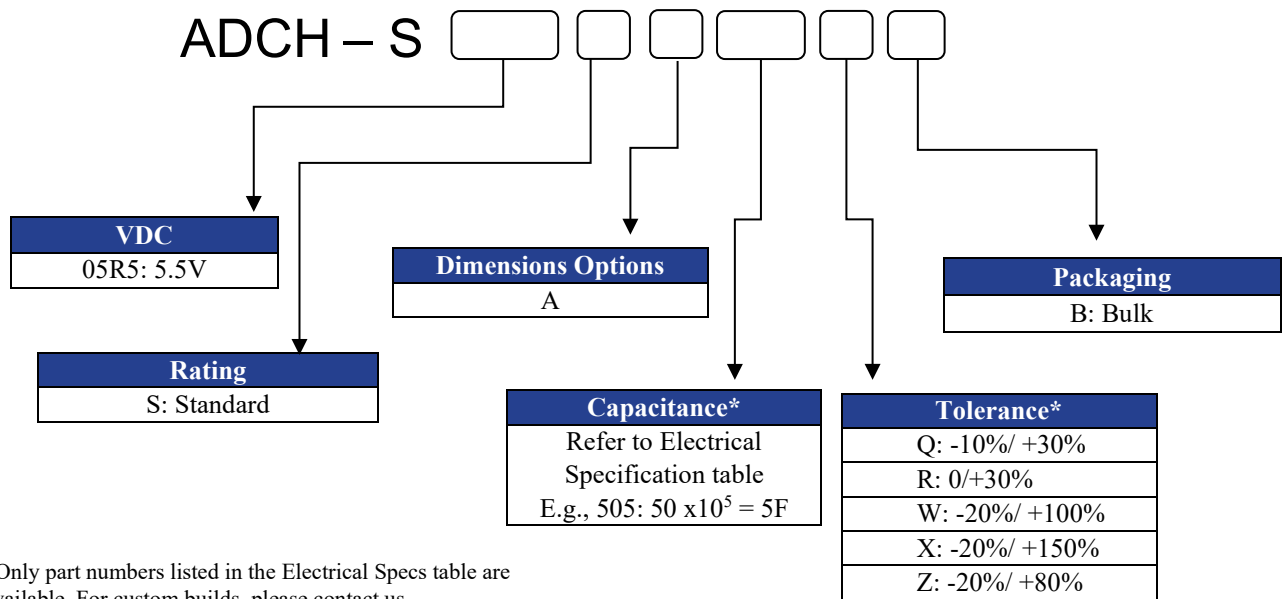


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Part Number Identification



Part Marking



Example of the Markings of a 5.5V 0.1F capacitor

Capacitance (F)

Rated Voltage (V)

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



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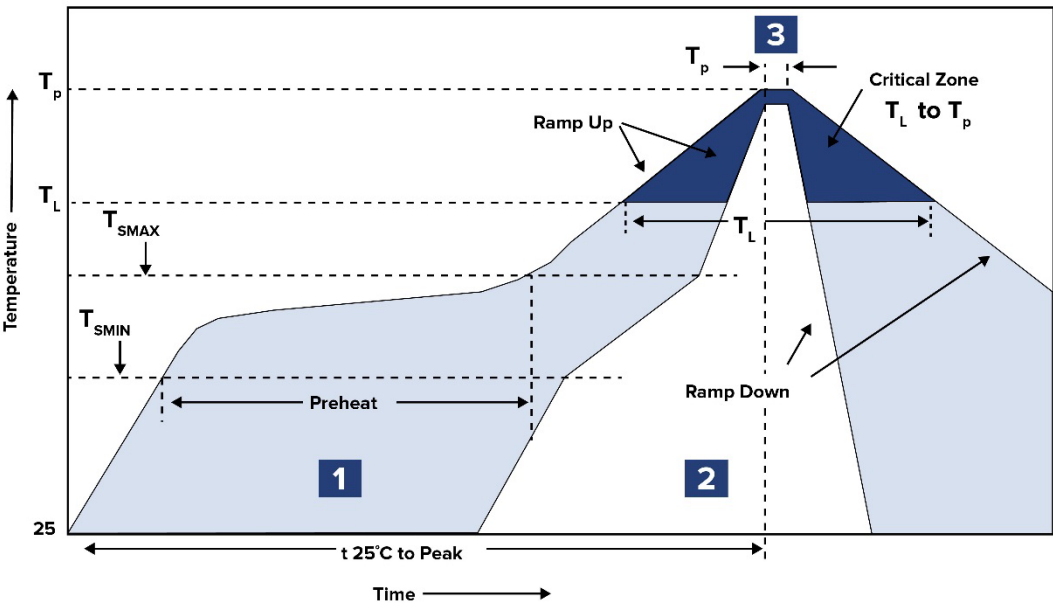


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Reflow Profile



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

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Packaging

Part Number	Quantity (PCS/Box)
ADCH-S05R5SA473WB	1300
ADCH-S05R5SA104XB	1300
ADCH-S05R5SA224WB	1300
ADCH-S05R5SA334ZB	1300
ADCH-S05R5SA474QB	1300
ADCH-S05R5SA105RB	672
ADCH-S05R5SA155RB	672

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