

2.7V Radial Super Capacitor



ADCR-S02R7S

Request Samples



Check Inventory



Various Sizes

RoHS/RoHS II Compliant

MSL Level = 1

Features

- 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	Stored Energy (Max)	Gravimetric Energy Density	Power Density	Volumetric Energy Density
ADCR-S02R7S	DC(V)	Farads	±%	mΩ	A	A	mA	mWh	Wh/kg	kW/kg	Wh/L
ADCR-S02R7SA504MB	2.7V	0.5	20	500	0.13	0.54	0.010	0.51	0.72	2.60	1.31
ADCR-S02R7SA105MB	2.7V	1.0	20	350	0.25	1.00	0.010	1.01	1.58	4.07	2.59
ADCR-S02R7SB105MB	2.7V	1.0	20	350	0.25	1.00	0.010	1.01	1.13	2.89	1.55
ADCR-S02R7SA205MB	2.7V	2.0	20	180	0.50	1.99	0.010	2.03	1.70	4.25	2.52
ADCR-S02R7SA305MB	2.7V	3.0	20	120	0.76	2.98	0.010	3.04	2.34	5.84	3.02
ADCR-S02R7SA335MB	2.7V	3.3	20	120	0.83	3.19	0.010	3.34	2.39	5.42	3.32
ADCR-S02R7SA505MB	2.7V	5.0	20	80	1.25	4.82	0.020	5.06	2.38	7.59	4.19
ADCR-S02R7SB505MB	2.7V	5.0	20	75	1.26	4.91	0.020	5.06	2.88	6.90	3.22
ADCR-S02R7SA605MB	2.7V	6.0	20	75	1.49	5.59	0.020	6.08	3.16	6.33	3.87
ADCR-S02R7SA705MB	2.7V	7.0	20	70	1.72	6.34	0.030	7.09	3.30	6.05	4.51
ADCR-S02R7SA106MB	2.7V	10	20	65	2.39	8.18	0.030	10.13	3.92	5.43	5.16
ADCR-S02R7SA156MB	2.7V	15	20	55	3.48	11.10	0.050	15.19	4.11	4.49	4.95
ADCR-S02R7SA206MB	2.7V	20	20	45	4.58	14.21	0.060	20.25	6.53	6.53	6.60
ADCR-S02R7SA256MB	2.7V	25	20	30	5.87	19.29	0.070	25.31	4.14	4.97	5.04
ADCR-S02R7SA306MB	2.7V	30	20	30	6.86	21.32	0.078	30.38	4.29	4.29	5.04

Operating Temperature: -40°C to +70°C

Storage: Temperature -30°C to +50°C, RH<60%, Max. Humidity <85% RH

Test Conditions: +25°C

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

Capacitance and ESR are measured with $I(\text{mA}) = 8(C \cdot U_R)$

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

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

Leakage Current: Measured after 72h at U_R



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Phone: 512-371-6159 Fax: 512-351-8858
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REVISION Initial Release :
3/20/2023

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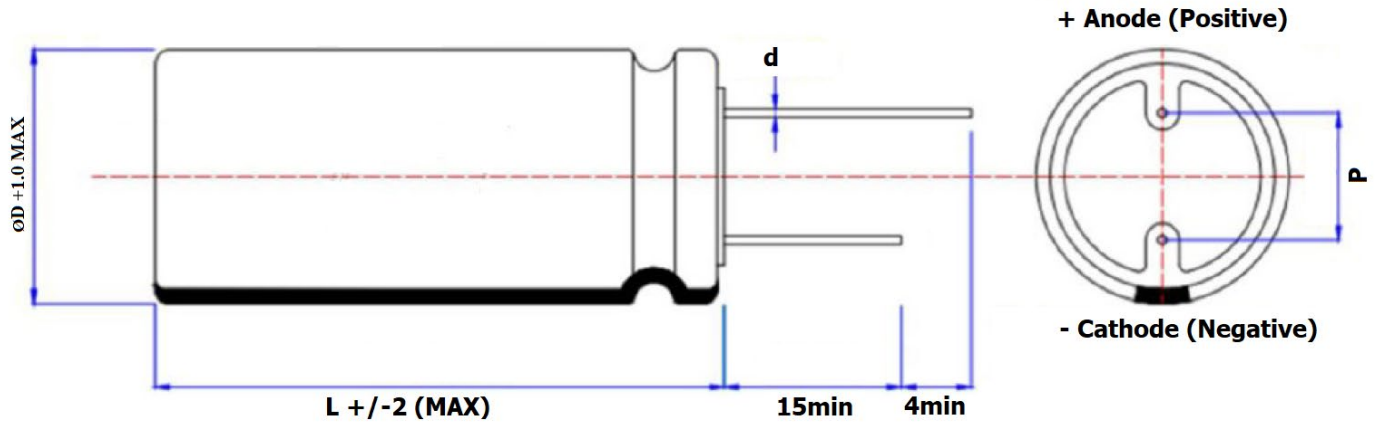


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Mechanical Specifications



Dimensions	D	L	P	d
ADCR-S02R7SA504MB	6.3 $\pm$ 1.0	12.5 $\pm$ 1.5	2.5 $\pm$ 0.5	0.5 $\pm$ 0.05
ADCR-S02R7SA105MB	6.3 $\pm$ 1.0	12.5 $\pm$ 1.5	2.5 $\pm$ 0.5	0.5 $\pm$ 0.05
ADCR-S02R7SB105MB	8.0 $\pm$ 1.0	13.0 $\pm$ 1.5	3.5 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA205MB	8.0 $\pm$ 1.0	16.0 $\pm$ 1.5	3.5 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA305MB	8.0 $\pm$ 1.0	20.0 $\pm$ 1.5	3.5 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA335MB	8.0 $\pm$ 1.0	20.0 $\pm$ 1.5	3.5 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA505MB	8.0 $\pm$ 1.0	24.0 $\pm$ 1.5	3.5 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SB505MB	10.0 $\pm$ 1.0	20.0 $\pm$ 1.5	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA605MB	10.0 $\pm$ 1.0	20.0 $\pm$ 1.5	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA705MB	10.0 $\pm$ 1.0	20.0 $\pm$ 1.5	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA106MB	10.0 $\pm$ 1.0	25.0 $\pm$ 2.0	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA156MB	12.5 $\pm$ 1.0	25.0 $\pm$ 2.0	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA206MB	12.5 $\pm$ 1.0	25.0 $\pm$ 2.0	5.0 $\pm$ 0.5	0.6 $\pm$ 0.05
ADCR-S02R7SA256MB	16.0 $\pm$ 1.0	25.0 $\pm$ 2.0	7.5 $\pm$ 0.5	0.8 $\pm$ 0.05
ADCR-S02R7SA306MB	16.0 $\pm$ 1.0	30.0 $\pm$ 2.0	7.5 $\pm$ 0.5	0.8 $\pm$ 0.05

Dimensions: mm

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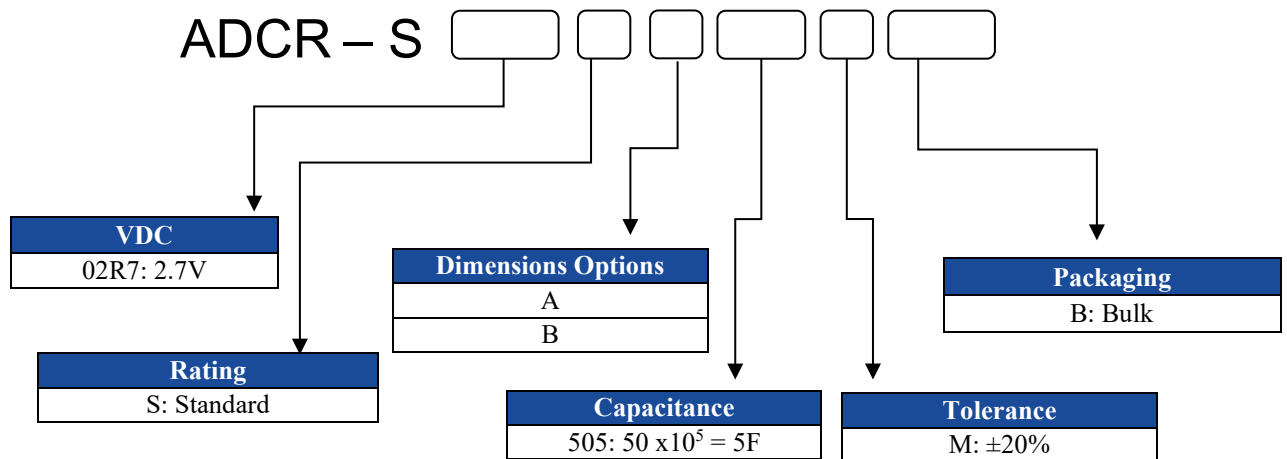


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Part Number Identification



Part Marking



Example of the Markings of a 1.0F 2.7V capacitor

Capacitance (F)

Rated Voltage (V)

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



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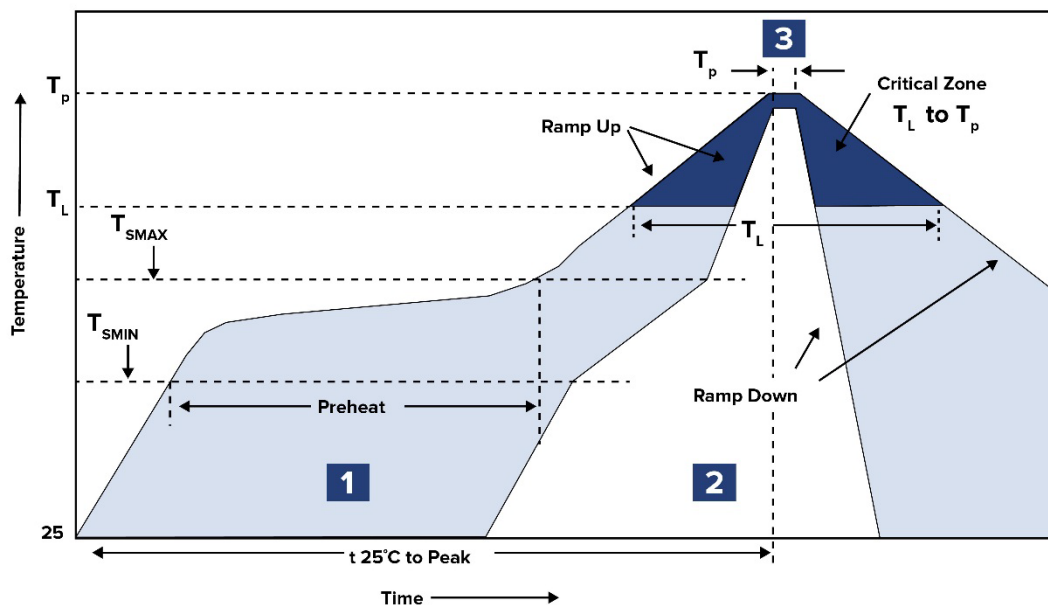


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Reflow Profile



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/bag)
ADCR-S02R7SA504MB	2000
ADCR-S02R7SA105MB	2000
ADCR-S02R7SB105MB	1500
ADCR-S02R7SA205MB	1000
ADCR-S02R7SA305MB	1000
ADCR-S02R7SA335MB	1000
ADCR-S02R7SA505MB	1000
ADCR-S02R7SB505MB	800
ADCR-S02R7SA605MB	800
ADCR-S02R7SA705MB	800
ADCR-S02R7SA106MB	600
ADCR-S02R7SA156MB	400
ADCR-S02R7SA206MB	400
ADCR-S02R7SA256MB	250
ADCR-S02R7SA306MB	200

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