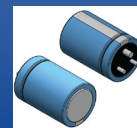


High Capacitance Supercapacitors



ADCT-E02R7S

Request Samples



Check Inventory



Various Sizes

RoHS/RoHS II Compliant

MSL Level = N/A

Features

- High Energy density up to 6Wh/Kg
- Low Leakage Current as small as 0.80mA
- Low Self-discharge rate, 72 hours @ discharge <5%
- Excellent cycle life of >500K cycles @25C
- 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 Numbers*	Rated Voltage (U _R)	Surge Voltage (Max)	Capacitance	Tolerance	ESR (Max)		Continuous Current (Max)	Peak Current (Max)	Leakage Current (Max)	Stored Energy (Max)	Gravimetric Energy Density
ADCT-E02R7S	DC (V)	DC (V)	Farads	See Part Number Identification	AC ESR (mΩ)	DC ESR (mΩ)	A	A	mA	Wh	Wh/kg
ADCT-E02R7SA227	2.7	2.85	220	Q, R	1.65	3.20	17.40	174.3	0.80	0.2228	3.43
ADCT-E02R7SA307	2.7	2.85	300	Q, R	1.40	2.20	22.70	244.0	1.00	0.3038	3.87
ADCT-E02R7SA407	2.7	2.85	400	Q, R	1.20	1.60	28.48	329.3	1.30	0.4050	4.48
ADCT-E02R7SA507	2.7	2.85	500	Q, R	1.20	1.60	28.48	375.0	1.40	0.5063	5.59
ADCT-E02R7SB507	2.7	2.85	500	Q, R	1.10	1.40	33.23	397.1	1.50	0.5063	5.01
ADCT-E02R7SA607	2.7	2.85	600	Q, R	1.10	1.40	33.23	440.2	1.60	0.6075	6.01
ADCT-E02R7SA757	2.7	2.85	750	Q, R	1.00	1.30	37.14	512.7	1.80	0.7594	6.08
ADCT-E02R7SA857	2.7	2.85	850	Q, R	0.90	1.20	40.39	568.1	1.95	0.8606	6.00

*For full part numbers, refer to the part number identification section

Operating Temperature: -40°C to +70°C.

Storage Temperature: 10°C to +40°C, Max. Humidity <85% RH.

Test Conditions: +25°C.

All parameters are measured according to the IEC 62813 standard.

Capacitance and DC ESR are measured with $I(\text{mA}) = 4(C \cdot U_R)$

Continuous Current (Max): DC current at which the body temperature rises by $\Delta T = 15^\circ\text{C}$.

Leakage Current: Measured after 72h at Rated Voltage (U_R)

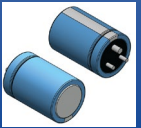


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ADCT-E02R7S

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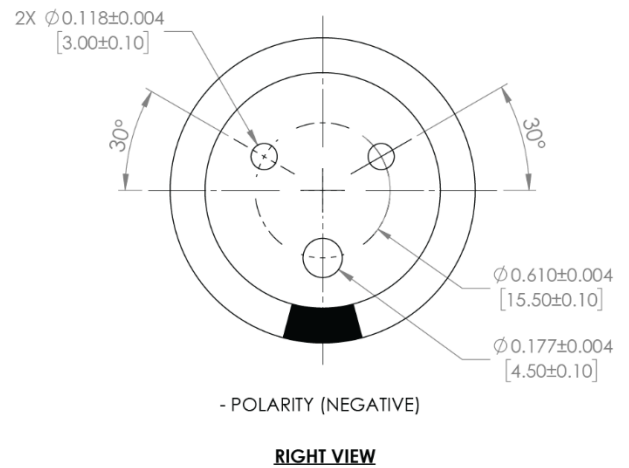
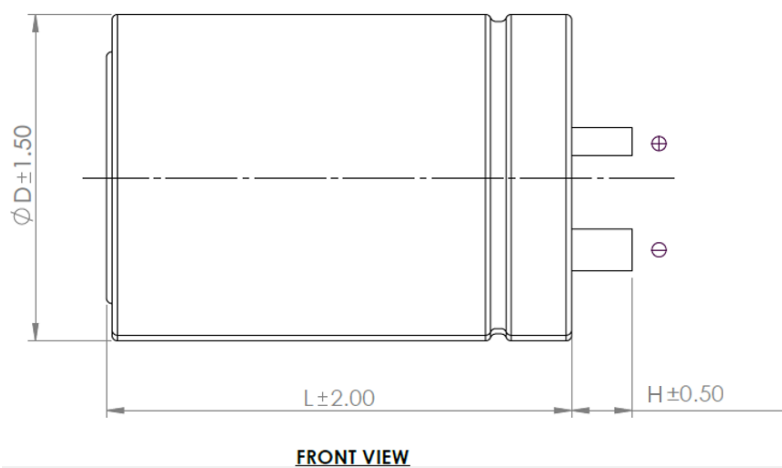


Various Sizes

RoHS/RoHS II Compliant

MSL Level = N/A

Mechanical Specifications



Dimensions: Inches [mm]

Dimensions	$\phi D \pm 1.5$	L	$H \pm 0.5$
ADCT-E02R7SA227	35	50	5.5
ADCT-E02R7SA307	35	60	
ADCT-E02R7SA407	35	70	
ADCT-E02R7SA507	35	70	
ADCT-E02R7SB507	35	85	
ADCT-E02R7SA607	35	85	
ADCT-E02R7SA757	35	100	
ADCT-E02R7SA857	35	110	

Dimensions: mm

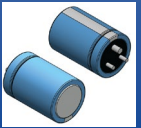


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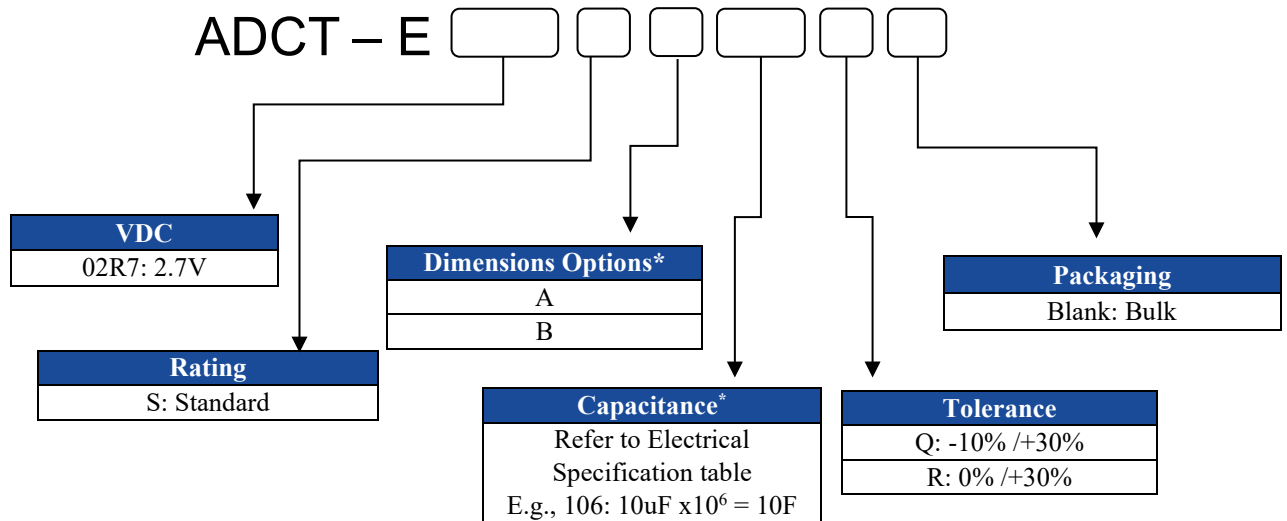


Various Sizes

RoHS/RoHS II Compliant

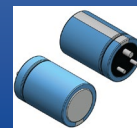
MSL Level = N/A

Part Number Identification



*Only part numbers listed in the Electrical Specs table are available. For custom builds, please contact [Abracon](https://www.abracon.com).

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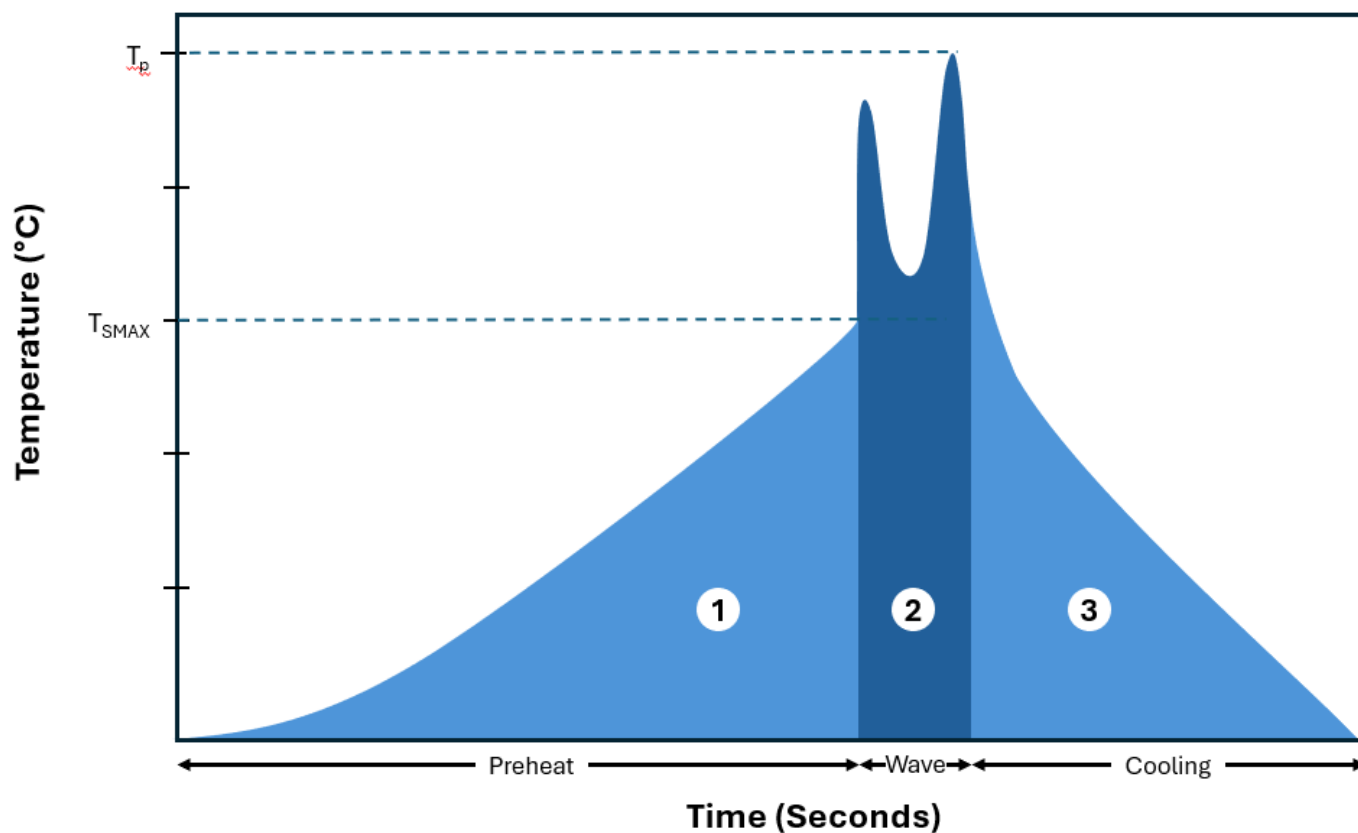


Various Sizes

RoHS/RoHS II Compliant

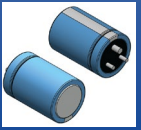
MSL Level = N/A

Wave 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

High Capacitance Supercapacitors



ADCT-E02R7S

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Various Sizes

RoHS/RoHS II Compliant

MSL Level = N/A

Packaging

The product is packaged in a carton containing multiple inner boxes as follows:

Part Number	Pcs/Inner box	Pcs/Intermediate box	Pcs/outer box
ADCT-E02R7SA227	45	180	360
ADCT-E02R7SA307	45	180	270
ADCT-E02R7SA407	45	180	270
ADCT-E02R7SA507	45	180	270
ADCT-E02R7SB507	45	90	180
ADCT-E02R7SA607	45	90	180
ADCT-E02R7SA757	45	90	180
ADCT-E02R7SA857	45	90	180

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.

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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[ADCT-E02R7SB507Q](#)