



Supercapacitor Selection Guide

Cda®

www.cda-cap.com

		Cylindrical Monomer								Cylindrical module								Coin type								(SMD Mount)				Hybrid											
Series		CXHP	CHV	CHQ	CHW	CXP	CHZ	CNP	CHP	CHPV	CHT	CSP	CZP	CPM	CHM	CHMV	CMZ	CB	CBN	CBH	CBW	CBL	CBS	CE	CEN	CH	CK	CW	CWH	CSN	CSV	CST	LIC	LIB							
Energy	Wind/Solar	•	•			•		•								•																•									
	Car start	•	•					•									•																								
	Microgrid	•				•											•																								
	Utility T&D																•																	•							
	Metering											•	•			•											•	•			•	•									
Industrial	Mission critical power	•	•					•	•	•	•						•			•						•	•	•	•	•	•	•									
	IoT	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•									•	•														
	Material handling	•	•	•					•									•																		•					
	Manufacturing automation	•	•	•				•	•	•	•							•																			•				
	Building & home control	•	•	•	•	•	•	•				•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Medical	Hospital systems			•					•								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
	Critical power UPS	•		•						•	•						•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
	Equipment peak power	•		•							•						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
	Personal	•	•					•										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
	Ventilator								•		•								•			•				•															
Transportation	Rail & traction	•	•							•										•																			•		
	Safety systems	•	•	•	•	•	•			•	•	•	•	•	•	•				•							•	•	•	•	•	•	•	•	•	•	•				
	Asset tracking	•	•	•	•	•	•			•	•	•	•	•	•	•				•			•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Computer	Servers Storage	•	•	•	•	•	•			•	•	•	•	•	•	•				•																					
	Data center UPS	•	•	•	•	•	•			•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
	Wireless communication	•	•	•	•	•	•			•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Consumer Electronics	household appliances	•				•		•										•								•	•	•	•	•	•	•	•	•	•	•	•	•			
	Toy	•	•	•	•	•	•	•		•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
	reserve	•	•	•	•	•	•	•		•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					

Feature

- Low leakage current, long life
- High power,high energy density
- Small size and low-resistance
- Long cycle life,maintenance-free
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,
- GSM/GPRS Pulse applications,
- Back up power,
- Stand alone or augment existing,
- energy/power source.

CXHP

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CXHP2R7154R-TW	2.7	0.15	4	10	1000	0.001	0.09	-40°C to +70°C
CXHP2R7224R-TW	2.7	0.22	4	10	1000	0.001	0.09	-40°C to +70°C
CXHP2R7224R-TWX	2.7	0.22	5	10	700	0.002	0.10	-40°C to +70°C
CXHP2R7304R-TW	2.7	0.3	4	10	700	0.002	0.11	-40°C to +70°C
CXHP2R7354R-TW	2.7	0.35	5	10	600	0.002	0.15	-40°C to +70°C
CXHP2R7504R-TWX	2.7	0.5	5	12	600	0.003	0.15	-40°C to +70°C
CXHP2R7504R-TW	2.7	0.5	6.3	12	240	0.006	0.14	-40°C to +70°C
CXHP2R7604R-TW	2.7	0.6	4	22	700	0.003	0.16	-40°C to +70°C
CXHP2R7105R-TWV	2.7	1	4	25	550	0.003	0.18	-40°C to +70°C
CXHP2R7105R-TWX	2.7	1	6.3	12	300	0.006	0.16	-40°C to +70°C
CXHP2R7125R-TWX	2.7	1.2	6.3	11	200	0.003	0.18	-40°C to +70°C
CXHP2R7125R-TW	2.7	1.2	5	22	200	0.006	0.33	-40°C to +70°C
CXHP2R7255R-TW	2.7	2.5	5	22	200	0.006	0.33	-40°C to +70°C
CXHP2R7335R-TWX	2.7	3.3	6.3	22	90	0.010	0.53	-40°C to +70°C
CXHP2R7405R-TWV	2.7	4	6.3	25	90	0.010	0.53	-40°C to +70°C
CXHP2R7105R-TW	2.7	1	8	12	160	0.006	0.47	-40°C to +70°C
CXHP2R7205R-TWX	2.7	2	8	16	120	0.010	0.61	-40°C to +70°C
CXHP2R7205R-TW	2.7	2	8	12	100	0.010	0.49	-40°C to +70°C
CXHP2R7205R-TWQ	2.7	2	8	20	100	0.012	0.55	-40°C to +70°C
CXHP2R7255R-TWX	2.7	2.5	8	16	130	0.025	0.59	-40°C to +70°C
CXHP2R7305R-TWX	2.7	3	8	16	130	0.012	0.59	-40°C to +70°C
CXHP2R7305R-TW	2.7	3	8	20	100	0.012	0.65	-40°C to +70°C
CXHP2R7335R-TW	2.7	3.3	8	20	100	0.012	0.74	-40°C to +70°C
CXHP2R7405R-TW	2.7	4	10	20	70	0.015	0.79	-40°C to +70°C
CXHP2R7475R-TW	2.7	4.7	10	20	72	0.017	0.75	-40°C to +70°C
CXHP2R7505R-TWX	2.7	5	8	25	90	0.015	0.87	-40°C to +70°C
CXHP2R7505R-TWV	2.7	5	8	20	110	0.015	0.71	-40°C to +70°C
CXHP2R7505R-TWQ	2.7	5	10	16	90	0.020	0.80	-40°C to +70°C
CXHP2R7505R-TW	2.7	5	10	20	75	0.015	0.97	-40°C to +70°C
CXHP2R7605R-TW	2.7	6	10	20	75	0.020	0.97	-40°C to +70°C
CXHP2R7705R-TW	2.7	7	10	20	75	0.020	0.97	-40°C to +70°C
CXHP2R7705R-TWX	2.7	7	8	25	90	0.015	0.87	-40°C to +70°C
CXHP2R7705R-TWQ	2.7	7	8	30	60	0.028	1.43	-40°C to +70°C

Feature

- Low leakage current, long life
- High power,high energy density
- Small size and low-resistance
- Long cycle life,maintenance-free
- REACH,RoHS Directive Compliant

Application

- Consumerelectronics,
- GSM/GPRS Pulse applications,
- Back up power,
- Stand alone or augment existing,
- energy/power source.



Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CXHP2R7805R-TW	2.7	8	10	25	60	0.020	0.93	-40°C to +70°C
CXHP2R7805R-TWX	2.7	8	12.5	20	60	0.020	1.35	-40°C to +70°C
CXHP2R7106R-TWV	2.7	10	8	30	60	0.028	1.61	-40°C to +70°C
CXHP2R7106R-TW	2.7	10	10	25	65	0.030	1.15	-40°C to +70°C
CXHP2R7106R-TWQ	2.7	10	10	30	50	0.030	1.43	-40°C to +70°C
CXHP2R7106R-TWX	2.7	10	12.5	20	45	0.030	1.42	-40°C to +70°C
CXHP2R7116R-TW	2.7	11	10	30	45	0.030	1.51	-40°C to +70°C
CXHP2R7126R-TW	2.7	12	12.5	20	50	0.036	1.35	-40°C to +70°C
CXHP2R7136R-TW	2.7	13	10	25	40	0.020	1.27	-40°C to +70°C
CXHP2R7156R-TW	2.7	15	12.5	25	40	0.050	1.80	-40°C to +70°C
CXHP2R7156R-TWX	2.7	15	12.5	20	45	0.040	1.42	-40°C to +70°C
CXHP2R7186R-TW	2.7	18	12.5	25	40	0.055	1.66	-40°C to +70°C
CXHP2R7206R-TW	2.7	20	12.5	25	30	0.060	2.70	-40°C to +70°C
CXHP2R7206R-TWQ	2.7	20	12.5	30	35	0.055	1.93	-40°C to +70°C
CXHP2R7226R-TWV	2.7	22	12.5	35	30	0.056	1.93	-40°C to +70°C
CXHP2R7256R-TW	2.7	25	16	25	27	0.060	2.09	-40°C to +70°C
CXHP2R7256R-TWV	2.7	25	12.5	35	30	0.060	2.23	-40°C to +70°C
CXHP2R7306R-TW	2.7	30	16	30	20	0.070	2.53	-40°C to +70°C
CXHP2R7306R-TWX	2.7	30	16	25	25	0.072	2.41	-40°C to +70°C
CXHP2R7356R-TWX	2.7	35	16	30	22	0.080	2.79	-40°C to +70°C
CXHP2R7356R-TW	2.7	35	16	35	19	0.086	3.24	-40°C to +70°C
CXHP2R7346R-TW	2.7	34	12.5	46	20	0.080	3.01	-40°C to +70°C
CXHP2R7406R-TWX	2.7	40	12.5	46	20	0.080	3.01	-40°C to +70°C
CXHP2R7506R-TW	2.7	50	18	40	16	0.105	3.96	-40°C to +70°C
CXHP2R7506R-TWQ	2.7	50	12.5	50	18	0.105	3.40	-40°C to +70°C
CXHP2R7506R-TWX	2.7	50	18	35	18	0.110	3.52	-40°C to +70°C
CXHP2R7606R-TW	2.7	60	18	40	15	0.150	4.09	-40°C to +70°C
CXHP2R7706R-TW	2.7	70	18	40	15	0.125	4.05	-40°C to +70°C
CXHP2R7826R-TW	2.7	82	18	40	15	0.140	4.05	-40°C to +70°C
CXHP2R7107R-TWV	2.7	100	18	60	13	0.240	5.30	-40°C to +70°C
CXHP2R7127R-TWV	2.7	120	18	60	13	0.280	5.30	-40°C to +70°C

Feature

- Low leakage current, long life
- High power,high energy density
- High reliability
- Long cycle life,maintenance-free
- REACH,RoHS Directive Compliant

Application

- Smart meters
- GPS and asset tracking devices
- RF Radio
- Storage server
- Industrial backup/power compensation
- Car safety devices

(Driving records, emergency door locks, electronic calls...)

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CHV-2R7105R-TWX	2.7	1	6.3	12	200	0.006	0.16	-40°C to +65°C
CHV-2R7105R-TW	2.7	1	8	12	150	0.006	0.38	-40°C to +65°C
CHV-2R7125R-TW	2.7	1.2	6.3	15	240	0.006	0.22	-40°C to +65°C
CHV-2R7155R-TW	2.7	1.5	8	12	160	0.010	0.47	-40°C to +65°C
CHV-2R7205R-TW	2.7	2	8	16	120	0.010	0.61	-40°C to +65°C
CHV-2R7335R-TW	2.7	3.3	8	20	95	0.012	0.56	-40°C to +65°C
CHV-2R7405R-TWX	2.7	4	8	20	100	0.015	0.74	-40°C to +65°C
CHV-2R7405R-TW	2.7	4	10	20	70	0.015	0.79	-40°C to +65°C
CHV-2R7475R-TW	2.7	4.7	10	20	75	0.015	0.97	-40°C to +65°C
CHV-2R7505R-TWX	2.7	5	8	25	85	0.015	0.68	-40°C to +65°C
CHV-2R7505R-TW	2.7	5	10	20	70	0.015	0.80	-40°C to +65°C
CHV-2R7705R-TW	2.7	7	10	20	70	0.018	0.79	-40°C to +65°C
CHV-2R7705R-TWQ	2.7	7	10	25	60	0.020	0.82	-40°C to +65°C
CHV-2R7805R-TW	2.7	8	12.5	20	60	0.020	0.93	-40°C to +65°C
CHV-2R7106R-TW	2.7	10	10	25	50	0.030	1.43	-40°C to +65°C
CHV-2R7106R-TWQ	2.7	10	10	30	50	0.030	1.43	-40°C to +65°C
CHV-2R7126R-TW	2.7	12	10	30	50	0.030	1.5	-40°C to +65°C
CHV-2R7106R-TWX	2.7	10	12.5	20	50	0.030	1.35	-40°C to +65°C
CHV-2R7126R-TW	2.7	12	12.5	25	50	0.035	1.53	-40°C to +65°C
CHV-2R7156R-TW	2.7	15	12.5	25	50	0.030	1.35	-40°C to +65°C
CHV-2R7156R-TWQ	2.7	15	12.5	30	35	0.050	1.93	-40°C to +65°C
CHV-2R7166R-TW	2.7	16	16	16	40	0.050	1.80	-40°C to +65°C
CHV-2R7186R-TW	2.7	18	12.5	30	40	0.055	1.66	-40°C to +65°C
CHV-2R7206R-TW	2.7	20	12.5	30	35	0.055	1.93	-40°C to +65°C
CHV-2R7226R-TW	2.7	22	12.5	30	34	0.060	1.97	-40°C to +65°C
CHV-2R7226R-TWX	2.7	22	16	20	30	0.075	2.00	-40°C to +65°C
CHV-2R7256R-TW	2.7	25	16	25	27	0.060	2.09	-40°C to +65°C
CHV-2R7306R-TW	2.7	30	16	30	20	0.070	2.53	-40°C to +65°C
CHV-2R7506R-TW	2.7	50	18	40	18	0.075	4.34	-40°C to +65°C
CHV-2R7606R-TW	2.7	60	18	40	15	0.150	4.58	-40°C to +65°C
CHV-2R7107R-TWV	2.7	100	18	60	15	0.260	5.51	-40°C to +65°C
CHV-2R7107R-TW	2.7	100	22	45	8	0.240	6.84	-40°C to +65°C
CHV-2R7127R-TW	2.7	120	22	50	7.5	0.300	7.40	-40°C to +65°C
CHV-2R7127R-TWX	2.7	120	25	45	8	0.250	6.72	-40°C to +65°C
CHV-2R7157R-TW	2.7	150	25	50	7	0.400	8.22	-40°C to +65°C
CHV-2R7187R-TW	2.7	180	25	50	7	0.415	8.08	-40°C to +65°C
CHV-2R7207R-TW	2.7	200	30	50	6	0.600	9.83	-40°C to +65°C
CHV-2R7227R-TW	2.7	220	30	50	6	0.520	10.08	-40°C to +65°C
CHV-2R7257R-TW	2.7	250	30	55	5.5	0.580	10.71	-40°C to +65°C
CHV-2R7307R-TWX	2.7	300	30	50	5.5	0.600	10.52	-40°C to +65°C
CHV-2R7307R-TW	2.7	300	30	55	6	0.600	10.08	-40°C to +65°C
CHV-2R7307R-TW	2.7	300	35	50	5.5	0.60	10.52	-40°C to +65°C
CHV-2R7337R-TW	2.7	330	35	50	5	0.80	11.76	-40°C to +65°C
CHV-2R7357R-TW	2.7	350	35	60	3	1.00	16.17	-40°C to +65°C
CHV-2R7367R-TW	2.7	360	35	60	4	0.95	15.06	-40°C to +65°C
CHV-2R7407R-TW	2.7	400	35	60	3.8	1.00	14.91	-40°C to +65°C
CHV-2R7407R-TWX	2.7	400	35	55	4.5	1.00	12.92	-40°C to +65°C
CHV-2R7457R-TW	2.7	450	35	60	4.0	1.20	14.23	-40°C to +65°C
CHV-2R7507R-TWX	2.7	500	35	60	3	1.00	19.58	-40°C to +65°C
CHV-2R7507R-TW	2.7	500	35	67	2.9	1.30	20.05	-40°C to +65°C
CHV-2R7607R-TW	2.7	600	35	70	3.2	1.60	17.02	-40°C to +65°C



Feature

- Temperature 85°C/85% Humidity
- Long cycle life,maintenance-free
- Low leakage current,High reliability
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,
- Power Holdup Modules,
- Energy Harvesting,
- UPS/Industrial,Robotic Power,
- High Pulse Current Applications.

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CHW-2R7224R-TW	2.7	0.22	4	10	1000	0.001	0.09	-40°C to +85°C
CHW-2R7224R-TWX	2.7	0.22	5	10	700	0.002	0.10	-40°C to +85°C
CHW-2R7304R-TW	2.7	0.3	4	10	700	0.002	0.11	-40°C to +85°C
CHW-2R7354R-TW	2.7	0.35	5	10	600	0.002	0.15	-40°C to +85°C
CHW-2R7504R-TWX	2.7	0.5	5	12	600	0.003	0.15	-40°C to +85°C
CHW-2R7504R-TW	2.7	0.5	6.3	12	240	0.006	0.14	-40°C to +85°C
CHW-2R7604R-TW	2.7	0.6	4	22	700	0.003	0.16	-40°C to +85°C
CHW-2R7105R-TWV	2.7	1	4	25	550	0.003	0.18	-40°C to +85°C
CHW-2R7105R-TWX	2.7	1	6.3	12	300	0.006	0.16	-40°C to +85°C
CHW-2R7125R-TW	2.7	1.2	5	22	200	0.006	0.33	-40°C to +85°C
CHW-2R7335R-TWX	2.7	3.3	6.3	22	90	0.010	0.53	-40°C to +85°C
CHW-2R7405R-TWV	2.7	4	6.3	25	90	0.010	0.53	-40°C to +85°C
CHW-2R7105R-TW	2.7	1	8	12	160	0.007	0.47	-40°C to +85°C
CHW-2R7155R-TW	2.7	1.5	8	12	160	0.010	0.43	-40°C to +85°C
CHW-2R7205R-TW	2.7	2	8	16	120	0.010	0.61	-40°C to +85°C
CHW-2R7335R-TW	2.7	3.3	8	20	100	0.012	0.74	-40°C to +85°C
CHW-2R7505R-TWX	2.7	5	8	25	90	0.016	0.87	-40°C to +85°C
CHW-2R7505R-TW	2.7	5	10	20	75	0.016	0.97	-40°C to +85°C
CHW-2R7705R-TW	2.7	7	10	25	60	0.022	1.20	-40°C to +85°C
CHW-2R7106R-TW	2.7	10	10	25	55	0.030	1.25	-40°C to +85°C
CHW-2R7106R-TWQ	2.7	10	10	30	45	0.032	1.51	-40°C to +85°C
CHW-2R7106R-TWX	2.7	10	12.5	20	45	0.032	1.42	-40°C to +85°C
CHW-2R7126R-TW	2.7	12	12.5	25	40	0.040	1.66	-40°C to +85°C
CHW-2R7156R-TW	2.7	15	12.5	30	35	0.055	1.93	-40°C to +85°C
CHW-2R7156R-TWX	2.7	15	12.5	25	40	0.055	1.66	-40°C to +85°C
CHW-2R7206R-TW	2.7	20	12.5	30	35	0.055	1.93	-40°C to +85°C
CHW-2R7256R-TW	2.7	25	16	25	25	0.078	2.41	-40°C to +85°C
CHW-2R7306R-TW	2.7	30	16	30	20	0.085	2.92	-40°C to +85°C
CHW-2R7506R-TW	2.7	50	18	40	16	0.120	3.96	-40°C to +85°C
CHW-2R7107R-TWV	2.7	100	18	60	13	0.250	5.30	-40°C to +85°C
CHW-2R7107R-TW	2.7	100	22	50	8	0.240	6.84	-40°C to +85°C

CHW



Feature

- Low leakage current, long life
- High power,high energy density
- Small size and low-resistance
- Long cycle life,maintenance-free
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,Industrial and Automation
- Portable Power Tools ,Renewable Energy Storage Systems
- Short Term UPS (Uninterruptible Power Supply).

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
DRL2R7105R-TW	2.7	1	8	12	200	0.006	0.47	-40°C to +65°C
DRL2R7205R-TW	2.7	2	8	12	100	0.010	0.49	-40°C to +65°C
DRL2R7305R-TW	2.7	3	8	20	140	0.012	0.65	-40°C to +65°C
DRL2R7335R-TW	2.7	3.3	8	20	140	0.012	0.74	-40°C to +65°C
DRL2R7505R-TW	2.7	5	10	20	115	0.015	0.97	-40°C to +65°C
DRL2R7705R-TW	2.7	7	10	20	115	0.020	0.97	-40°C to +65°C
DRL2R7106R-TW	2.7	10	10	25	105	0.030	1.15	-40°C to +65°C
DRL2R7106R-TWQ	2.7	10	10	30	70	0.030	1.43	-40°C to +65°C
DRL2R7106R-TWX	2.7	10	12.5	20	65	0.030	1.42	-40°C to +65°C
DRL2R7156R-TW	2.7	15	12.5	25	50	0.050	1.80	-40°C to +65°C
DRL2R7186R-TW	2.7	18	12.5	25	50	0.055	1.66	-40°C to +65°C
DRL2R7206R-TW	2.7	20	12.5	25	40	0.060	2.70	-40°C to +65°C

DRL



Feature

- High power,Extremely Lower ESR,high energy density
- Maintenance-free,Long cycle life, Low Leakage Current
- No Explosion Safety,High pulse power capability
- REACH,RoHS Directive Compliant

Application

- Power Holdup Modules,
- Energy Harvesting, UPS/Industrial,
- Robotic Power,
- High Pulse Current Applications
- Emergency car energy storage.

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CHQ-2R7105R-TW	2.7	1	8	12	140	0.006	0.57	-40°C to +65°C
CHQ-2R7205R-TW	2.7	2	8	16	90	0.013	0.71	-40°C to +65°C
CHQ-2R7335R-TW	2.7	3.3	8	20	60	0.012	0.93	-40°C to +65°C
CHQ-2R7505R-TWX	2.7	5	8	25	55	0.020	1.11	-40°C to +65°C
CHQ-2R7505R-TW	2.7	5	10	20	27	0.015	1.19	-40°C to +65°C
CHQ-2R7705R-TW	2.7	7	10	25	30	0.030	1.70	-40°C to +65°C
CHQ-2R7106R-TWQ	2.7	10	10	30	20	0.030	2.02	-40°C to +65°C
CHQ-2R7106R-TWX	2.7	10	13	20	25	0.035	1.91	-40°C to +65°C
CHQ-2R7256R-TW	2.7	25	16	25	15	0.060	2.41	-40°C to +65°C
CHQ-2R7506R-TW	2.7	50	18	40	9	0.075	3.96	-40°C to +65°C
CHQ-2R7107R-TW	2.7	100	22	45	6.00	0.26	11.81	-40°C to +65°C
CHQ-2R7127R-TW	2.7	120	22	50	6.00	0.30	13.05	-40°C to +65°C
CHQ-2R7187R-TW	2.7	180	25	50	7.00	0.60	15.75	-40°C to +65°C
CHQ-2R7227R-TW	2.7	220	30	50	5.00	0.62	17.92	-40°C to +65°C
CHQ-2R7357R-TW	2.7	350	35	60	2.50	1.00	24.20	-40°C to +65°C
CHQ-2R7407R-TW	2.7	400	35	60	2.30	1.00	25.75	-40°C to +65°C
CHQ-2R7507R-TW	2.7	500	35	65	2.40	1.30	26.90	-40°C to +65°C
CHQ-2R7607R-TW	2.7	600	35	70	2.50	1.50	30.77	-40°C to +65°C
CHQ-2R7307R-TW	2.7	300	35	60	1.60	1.00	24.44	-40°C to +65°C
CHQ-2R7367R-TW	2.7	360	35	65	1.30	1.20	24.64	-40°C to +65°C
CHQ-2R7407R-TW	2.7	400	35	70	1.20	1.30	28.52	-40°C to +65°C
CHQ-2R7507R-TW	2.7	500	35	85	1.10	1.50	33.26	-40°C to +65°C
CHQ-2R7607R-TW	2.7	600	35	85	1.10	1.50	34.09	-40°C to +65°C
CHQ-2R7407R-TWQ	2.7	400	35	66	2.50	1.00	22.20	-40°C to +65°C
CHQ-3R0307R-TW	3.0	300	35	60	1.4	1.00	22.70	-40°C to +65°C
CHQ-3R0367R-TW	3.0	360	35	65	1.3	1.20	24.64	-40°C to +65°C
CHQ-3R0407R-TW	3.0	400	35	70	1.2	1.30	28.52	-40°C to +65°C
CHQ-3R0507R-TW	3.0	500	35	85	1.1	1.50	33.26	-40°C to +65°C
CHQ-3R0607R-TW	3.0	600	35	85	1.1	1.60	33.26	-40°C to +65°C

CHQ



Feature

- Up to 1,000,000 duty cycles or 10 year DC life*
- High power and energy
- 650F to 3,000F capacitance range
- Threaded terminals or laser-weldable posts
- REACH,RoHS Directive Compliant

Application

- High shock and vibration environments
- Automotive subsystems ,Wind turbine pitch control
- Hybrid vehicles ,Rail
- Heavy industrial equipment
- UPS & telecom systems

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Rated Current (A)		Operating temperature
			D	L			Δ T = 15°C	Δ T = 40°C	
CNP650 P270	2.7	650	60.0	51.0	0.40	1.8	75	108	-40°C to +65°C
CNP1200 P270	2.7	1200	60.0	74.0	0.25	2.5	110	145	-40°C to +65°C
CNP1500 P270	2.7	1500	60.0	84.5	0.25	1.8	110	152	-40°C to +65°C
CNP2000 P270	2.7	2000	60.0	101.5	0.18	1.8	125	180	-40°C to +65°C
CNP3000 P270	2.7	3000	60.0	137.5	0.14	5.2	135	210	-40°C to +65°C
CNP3400 P270	2.7	3400	60.0	137.5	0.14	1.8	135	210	-40°C to +65°C
CNP3400 P285	2.85	3400	60.0	138.0	0.14	6.24	127	195	-40°C to +65°C
CNP650 P300	3.0	650	60.0	51.0	0.45	2.16	70	98	-40°C to +65°C
CNP1200 P300	3.0	1200	60.0	74.0	0.30	3.00	105	139	-40°C to +65°C
CNP1500 P300	3.0	1500	60.0	85.0	0.20	4.20	120	152	-40°C to +65°C
CNP2000 P300	3.0	2000	60.0	102.0	0.20	12.35	120	170	-40°C to +65°C
CNP3000 P300	3.0	3000	60.0	138.0	0.14	6.24	127	195	-40°C to +65°C
CNP3400 P300	3.0	3400	60.0	138.0	0.14	6.24	127	195	-40°C to +65°C

CNP



Feature

- Temperature 85°C/85% Humidity
- Long cycle life,maintenance-free
- Ultra low ESR,High reliability
- REACH,RoHS Directive Compliant

Application

- Instant power outage of equipment to prevent voltage changes
- Toys
- Auxiliary power supply for solar cells (road signs, indicator lights)



Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CHZ-2R5224R-TW	2.5	0.22	5	10	700	0.002	0.10	-40°C to +85°C
CHZ-2R5105R-TWX	2.5	1	6.3	12	300	0.006	0.16	-40°C to +85°C
CHZ-2R5105R-TW	2.5	1	8	12	160	0.007	0.47	-40°C to +85°C
CHZ-2R5225R-TW	2.5	2.2	8	20	100	0.012	0.54	-40°C to +85°C
CHZ-2R5275R-TW	2.5	2.7	8	20	100	0.012	0.59	-40°C to +85°C
CHZ-2R5305R-TW	2.5	3.0	8	20	100	0.012	0.62	-40°C to +85°C
CHZ-2R5335R-TWX	2.5	3.3	8	20	100	0.012	0.74	-40°C to +85°C
CHZ-2R5335R-TW	2.5	3.3	10	20	75	0.016	0.97	-40°C to +85°C
CHZ-2R5475R-TW	2.5	4.7	10	20	75	0.016	0.97	-40°C to +85°C
CHZ-2R5475R-TWV	2.5	4.7	8	30	60	0.028	1.43	-40°C to +85°C
CHZ-2R5505R-TW	2.5	5	10	20	75	0.016	0.97	-40°C to +85°C
CHZ-2R5605R-TWV	2.5	6	8	30	60	0.028	1.43	-40°C to +85°C
CHZ-2R5605R-TW	2.5	6	10	30	45	0.032	1.51	-40°C to +85°C
CHZ-2R5685R-TW	2.5	6.8	10	25	60	0.022	1.20	-40°C to +85°C
CHZ-2R5106R-TW	2.5	10	10	30	45	0.032	1.51	-40°C to +85°C
CHZ-2R5226R-TW	2.5	22	12.5	35	30	0.060	2.23	-40°C to +85°C
CHZ-2R5156R-TWV	2.5	15	12.5	35	30	0.056	2.23	-40°C to +85°C
CHZ-2R5156R-TW	2.5	15	12.5	25	30	0.060	2.70	-40°C to +85°C
CHZ-2R5226R-TW	2.5	22	16	25	25	0.078	2.21	-40°C to +85°C
CHZ-2R5256R-TW	2.5	25	16	25	25	0.078	2.41	-40°C to +85°C
CHZ-2R5336R-TW	2.5	33	16	35	19	0.086	3.24	-40°C to +85°C
CHZ-2R5356R-TW	2.5	35	16	35	19	0.086	3.24	-40°C to +85°C
CHZ-2R5476R-TW	2.5	47	18	40	16	0.120	3.55	-40°C to +85°C
CHZ-2R5506R-TW	2.5	50	18	40	16	0.120	3.96	-40°C to +85°C
CHZ-2R5606R-TW	2.5	60	18	40	15	0.150	4.09	-40°C to +85°C
CHZ-2R5107R-TW	2.5	100	18	60	13	0.240	5.30	-40°C to +85°C
CHZ-2R5117R-TW	2.5	110	18	60	13	0.280	5.30	-40°C to +85°C

Feature

- High power,high energy density High reliability
- Long cycle life,maintenance-free
- 3.0V High Operating Voltage
- Ultra low ESR for high power density
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,
- Smart meter,
- Back up power,
- Stand alone or augment existing,
- Energy/power source.



Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CXP-3R0224R-TWX	3.0	0.22	4	10	1000	0.001	0.09	-40°C to +65°C
CXP-3R0224R-TW	3.0	0.22	5	10	700	0.002	0.10	-40°C to +65°C
CXP-3R0304R-TW	3.0	0.3	4	10	700	0.001	0.10	-40°C to +65°C
CXP-3R0354R-TW	3.0	0.35	5	10	600	0.002	0.12	-40°C to +65°C
CXP-3R0504R-TW	3.0	0.5	5	12	400	0.002	0.15	-40°C to +65°C
CXP-3R0604R-TW	3.0	0.6	4	22	700	0.003	0.16	-40°C to +65°C
CXP-3R0105R-TWV	3.0	1	4	25	550	0.003	0.18	-40°C to +65°C
CXP-3R0105R-TWX	3.0	1	6.3	12	240	0.006	0.29	-40°C to +65°C
CXP-3R0105R-TWQ	3.0	1	6.3	10	220	0.003	0.18	-40°C to +65°C
CXP-3R0125R-TW	3.0	1.2	5	22	200	0.006	0.33	-40°C to +65°C
CXP-3R0125R-TWX	3.0	1.2	6.3	11	250	0.006	0.20	-40°C to +65°C
CXP-3R0355R-TW	3.0	3.5	6.3	22	90	0.010	0.53	-40°C to +65°C
CXP-3R0455R-TW	3.0	4.5	6.3	25	90	0.010	0.56	-40°C to +65°C
CXP-3R0105R-TW	3.0	1	8	12	180	0.006	0.47	-40°C to +65°C
CXP-3R0155R-TW	3.0	1.5	8	20	98	0.012	0.74	-40°C to +65°C
CXP-3R0205R-TWX	3.0	2	8	12	130	0.006	0.26	-40°C to +65°C
CXP-3R0205R-TW	3.0	2	8	16	100	0.010	0.61	-40°C to +65°C
CXP-3R0335R-TW	3.0	3.3	8	20	98	0.012	0.74	-40°C to +65°C
CXP-3R0405R-TW	3.0	4	10	20	75	0.018	0.90	-40°C to +65°C
CXP-3R0505R-TWX	3.0	5	8	25	90	0.015	0.87	-40°C to +65°C
CXP-3R0505R-TW	3.0	5	10	20	75	0.018	0.97	-40°C to +65°C
CXP-3R0605R-TW	3.0	6	10	20	70	0.020	0.79	-40°C to +65°C
CXP-3R0705R-TWX	3.0	7	8	25	80	0.018	0.71	-40°C to +65°C
CXP-3R0705R-TW	3.0	7	10	20	70	0.020	0.79	-40°C to +65°C
CXP-3R0705R-TWQ	3.0	7	10	25	60	0.024	1.20	-40°C to +65°C
CXP-3R0106R-TWX	3.0	10	10	25	55	0.030	1.25	-40°C to +65°C
CXP-3R0106R-TWQ	3.0	10	10	30	45	0.036	1.51	-40°C to +65°C
CXP-3R0106R-TW	3.0	10	12.5	20	45	0.036	1.42	-40°C to +65°C
CXP-3R0126R-TW	3.0	12	12.5	25	40	0.048	1.66	-40°C to +65°C
CXP-3R0156R-TWX	3.0	15	12.5	30	35	0.062	1.93	-40°C to +65°C
CXP-3R0156R-TW	3.0	15	12.5	25	30	0.048	1.92	-40°C to +65°C

Feature

- High power,high energy density High reliability
- Long cycle life,maintenance-free
- 3.0V High Operating Voltage
- Ultra low ESR for high power density
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,
- Smart meter,
- Back up power,
- Stand alone or augment existing,
- Energy/power source.

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			D	L				
CXP-3R0186R-TW	3.0	18	12.5	25	35	0.040	1.59	-40°C to +65°C
CXP-3R0206R-TW	3.0	20	12.5	25	35	0.050	1.66	-40°C to +65°C
CXP-3R0206R-TWQ	3.0	20	12.5	30	33	0.072	1.98	-40°C to +65°C
CXP-3R0226R-TW	3.0	22	12.5	35	34	0.060	1.97	-40°C to +65°C
CXP-3R0256R-TWQ	3.0	25	12.5	35	26	0.082	2.40	-40°C to +65°C
CXP-3R0256R-TW	3.0	25	16	25	25	0.082	2.41	-40°C to +65°C
CXP-3R0306R-TW	3.0	30	16	30	20	0.090	2.92	-40°C to +65°C
CXP-3R0346R-TW	3.0	34	12.5	45	20	0.080	2.79	-40°C to +65°C
CXP-3R0356R-TWX	3.0	35	16	30	20	0.070	3.09	-40°C to +65°C
CXP-3R0356R-TW	3.0	35	16	35	18	0.105	3.30	-40°C to +65°C
CXP-3R0406R-TW	3.0	40	12.5	46	20	0.080	3.01	-40°C to +65°C
CXP-3R0506R-TWQ	3.0	50	12.5	50	18	1.105	3.40	-40°C to +65°C
CXP-3R0506R-TW	3.0	50	18	40	18	0.075	3.96	-40°C to +65°C
CXP-3R0606R-TW	3.0	60	18	60	15	0.100	2.00	-40°C to +65°C
CXP-3R0107R-TWV	3.0	100	18	60	13	0.260	5.30	-40°C to +65°C
CXP-3R0127R-TWV	3.0	120	18	60	12	0.300	6.72	-40°C to +65°C
CXP-3R0107R-TW	3.0	100	22	45	8.0	0.276	6.84	-40°C to +65°C
CXP-3R0127R-TW	3.0	120	22	50	7.5	0.345	7.40	-40°C to +65°C
CXP-3R0157R-TWX	3.0	150	22	55	7.0	0.460	7.00	-40°C to +65°C
CXP-3R0167R-TW	3.0	160	22	55	7.0	0.460	8.00	-40°C to +65°C
CXP-3R0157R-TW	3.0	150	25	50	7.0	0.460	8.22	-40°C to +65°C
CXP-3R0227R-TW	3.0	220	30	50	6.0	0.598	9.83	-40°C to +65°C
CXP-3R0257R-TW	3.0	250	30	55	5.5	0.667	10.71	-40°C to +65°C
CXP-3R0357R-TW	3.0	350	35	60	3	1.00	13.90	-40°C to +65°C
CXP-3R0367R-TW	3.0	360	35	60	4.0	0.98	14.49	-40°C to +65°C
CXP-3R0387R-TW	3.0	380	35	60	3.8	1.05	14.86	-40°C to +65°C
CXP-3R0407R-TW	3.0	400	35	66	3.5	1.15	16.15	-40°C to +65°C
CXP-3R0437R-TW	3.0	430	35	66	3.2	1.24	16.55	-40°C to +65°C
CXP-3R0487R-TW	3.0	480	35	70	3.1	1.35	17.17	-40°C to +65°C
CXP-3R0507R-TW	3.0	500	35	65	2.9	1.30	18.75	-40°C to +65°C
CXP-3R0607R-TW	3.0	600	35	70	3	1.50	19.95	-40°C to +65°C

Feature

- High power,high energy density
- Long cycle life,maintenance-free
- Lead terminals can be customized
- Low ESR, Low Leakage Current
- REACH,RoHS Directive Compliant

Application

- Consumer electronics
- Ride thru power support
- Back up power
- Stand alone or augment existing
- Energy/power source.

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			W	D	L				
CHP5R0L104R-TW	5.0	0.1	10	5	12	2000	0.001	0.09	-40°C to +70°C
CHP5R0L474R-TWX	5.0	0.47	13	7	14	400	0.006	0.31	-40°C to +70°C
CHP5R0L474R-TW	5.0	0.47	16	8	14	300	0.006	0.38	-40°C to +70°C
CHP5R0L105R-TW	5.0	1.0	16	8	18	200	0.008	0.45	-40°C to +70°C
CHP5R0L155R-TW	5.0	1.5	16	8	22	190	0.010	0.64	-40°C to +70°C
CHP5R0L255R-TW	5.0	2.5	20	10	22	140	0.020	0.75	-40°C to +70°C
CHP5R0L505R-TWX	5.0	5.0	25	12.5	22	100	0.025	1.10	-40°C to +70°C
CHP5R0L755R-TW	5.0	7.5	25	12.5	32	70	0.065	1.52	-40°C to +70°C
CHP5R5L473R-TW	5.5	0.047	9	4	12	2500	0.001	0.09	-40°C to +70°C
CHP5R5L104R-TW	5.5	0.1	10	5	12	900	0.001	0.09	-40°C to +70°C
CHP5R5L124R-TW	5.5	0.12	9	4	12	2000	0.001	0.09	-40°C to +70°C
CHP5R5L224R-TWX	5.5	0.22	10	5	14	800	0.002	0.12	-40°C to +70°C
CHP5R5L224R-TW	5.5	0.22	13	7	14	400	0.006	0.14	-40°C to +70°C
CHP5R5L474R-TWQ	5.5	0.47	9	4	27	1100	0.003	0.18	-40°C to +70°C
CHP5R5L504R-TWX	5.5	0.5	13	7	14	400	0.006	0.16	-40°C to +70°C
CHP5R5L155R-TWQ	5.5	1.5	13	7	24	190	0.010	0.53	-40°C to +70°C
CHP5R5L205R-TWQ	5.5	2.0	13	7	27	190	0.010	0.56	-40°C to +70°C
CHP5R5L334R-TW	5.5	0.33	16	8	14	300	0.006	0.34	-40°C to +70°C
CHP5R5L474R-TW	5.5	0.47	16	8	14	300	0.006	0.47	-40°C to +70°C
CHP5R5L504R-TW	5.5	0.50	16	8	14	300	0.006	0.50	-40°C to +70°C
CHP5R5L105R-TW	5.5	1.0	16	8	14	360	0.006	0.44	-40°C to +70°C
CHP5R5L105R-TWX	5.5	1.0	16	8	18	240	0.010	0.61	-40°C to +70°C
CHP5R5L105R-TWQ	5.5	1.0	16	8	22	200	0.012	0.74	-40°C to +70°C
CHP5R5L155R-TW	5.5	1.5	16	8	22	200	0.012	0.74	-40°C to +70°C
CHP5R5L155R-TWX	5.5	1.5	16	8	18	260	0.012	0.59	-40°C to +70°C
CHP5R5L205R-TW	5.5	2.0	16	8	22	200	0.015	0.74	-40°C to +70°C
CHP5R5L255R-TW	5.5	2.5	20	10	22	150	0.015	0.97	-40°C to +70°C
CHP5R5L255R-TWX	5.5	2.5	20	10	18	180	0.015	0.80	-40°C to +70°C
CHP5R5L255R-TWQ	5.5	2.5	16	8	27	160	0.017	0.75	-40°C to +70°C
CHP5R5L305R-TW	5.5	3.0	20	10	22	150	0.020	0.97	-40°C to +70°C
CHP5R5L355R-TW	5.5	3.5	20	10	22	150	0.020	0.97	-40°C to +70°C
CHP5R5L355R-TWQ	5.5	3.5	16	8	27	120	0.020	1.20	-40°C to +70°C
CHP5R5L405R-TW	5.5	4.0	20	10	27	150	0.028	1.17	-40°C to +70°C
CHP5R5L405R-TWX	5.5	4.0	25	12.5	22	90	0.030	1.42	-40°C to +70°C
CHP5R5L505R-TW	5.5	5.0	20	10	27	150	0.028	1.17	-40°C to +70°C
CHP5R5L505R-TWX	5.5	5.0	25	12.5	22	90	0.030	1.42	-40°C to +70°C
CHP5R5L505R-TWQ	5.5	5.0	20	10	32	90	0.030	1.51	-40°C to +70°C
CHP5R5L505R-TWV	5.5	5.0	16	8	32	120	0.028	1.16	-40°C to +70°C
CHP5R5L755R-TW	5.5	7.5	25	12.5	28	100	0.070	1.80	-40°C to +70°C
CHP5R5L755R-TWQ	5.5	7.5	25	12.5	32	70	0.052	1.93	-40°C to +70°C
CHP5R5L106R-TW	5.5	10	25	12.5	28	96	0.055	1.95	-40°C to +70°C
CHP5R5L106R-TWQ	5.5	10	25	12.5	32	70	0.055	1.93	-40°C to +70°C
CHP5R5L106R-TWX	5.5	10	25	12.5	37	60	0.056	2.23	-40°C to +70°C
CHP5R5L126R-TW	5.5	12	32	16	27	50	0.068	2.41	-40°C to +70°C
CHP5R5L156R-TW	5.5	15	32	16	32	70	0.095	2.09	-40°C to +70°C
CHP5R5L206R-TW	5.5	20	36	18	42	36	0.088	3.52	-40°C to +70°C
CHP5R5L206R-TWX	5.5	20	36	18	37	43	0.080	3.1	-40°C to +70°C
CHP5R5L256R-TW	5.5	25	36	18	42	40	0.110	4.34	-40°C to +70°C
CHP5R5L306R-TW	5.5	30	36	18	42	35	0.120	4.64	-40°C to +70°C
CHP5R5L416R-TW	5.5	41	36	18	42	45	0.250	3.55	-40°C to +70°C
CHP5R5L506R-TW	5.5	50	36	18	62	30	0.300	6.04	-40°C to +70°C
CHP5R5L606R-TW	5.5	60	36	18	62	25	0.250	7.20	-40°C to +70°C



Feature

- Low leakage current, long life
- High Temperature
- Small size and low-resistance
- Temperature 85°C/85% Humidity
- REACH,RoHS Directive Compliant

Application

- Scanners,Medical equipment
- Main power
- Back up power
- UPS/Industrial
- Wireless Alarms
- Water and gas smart meters.

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			W	D	L				
CHT-5R4L104R-TW	5.4	0.1	10	5	12	1400	0.002	0.09	-40°C to +85°C
CHT-5R4L224R-TW	5.4	0.22	10	5	14	1100	0.002	0.13	-40°C to +85°C
CHT-5R4L504R-TWX	5.4	0.5	13	7	14	400	0.003	0.18	-40°C to +85°C
CHT-5R4L474R-TWX	5.4	0.47	13	7	14	400	0.003	0.18	-40°C to +85°C
CHT-5R5L104R-TW	5.5	0.1	10	5	12	900	0.001	0.09	-40°C to +85°C
CHT-5R5L124R-TW	5.5	0.12	9	4	12	2000	0.001	0.09	-40°C to +85°C
CHT-5R5L224R-TWX	5.5	0.22	10	5	14	800	0.002	0.12	-40°C to +85°C
CHT-5R5L224R-TW	5.5	0.22	13	7	14	400	0.006	0.14	-40°C to +85°C
CHT-5R5L474R-TWQ	5.5	0.47	9	4	27	1100	0.003	0.18	-40°C to +85°C
CHT-5R5L504R-TWX	5.5	0.5	13	7	14	400	0.006	0.16	-40°C to +85°C
CHT-5R5L155R-TWQ	5.5	1.5	13	7	24	190	0.010	0.53	-40°C to +85°C
CHT-5R5L205R-TW	5.5	2.0	13	7	27	190	0.010	0.56	-40°C to +85°C
CHT-5R4L504R-TW	5.4	0.5	16	8	14	320	0.006	0.50	-40°C to +85°C
CHT-5R4L474R-TW	5.4	0.47	16	8	14	320	0.006	0.47	-40°C to +85°C
CHT-5R4L105R-TW	5.4	1.0	16	8	18	240	0.010	0.61	-40°C to +85°C
CHT-5R4L155R-TW	5.4	1.5	16	8	22	200	0.012	0.74	-40°C to +85°C
CHT-5R4L255R-TWV	5.4	2.5	16	8	27	180	0.015	0.87	-40°C to +85°C
CHT-5R4L255R-TW	5.4	2.5	20	10	22	150	0.015	0.97	-40°C to +85°C
CHT-5R4L355R-TW	5.4	3.5	20	10	22	120	0.018	1.20	-40°C to +85°C
CHT-5R4L355R-TWV	5.4	3.5	16	8	27	170	0.018	0.75	-40°C to +85°C
CHT-5R4L505R-TW	5.4	5.0	20	10	27	120	0.030	1.20	-40°C to +85°C
CHT-5R4L505R-TWQ	5.4	5.0	20	10	32	90	0.030	1.43	-40°C to +85°C
CHT-5R4L505R-TWX	5.4	5.0	25	13	22	90	0.030	1.42	-40°C to +85°C
CHT-5R4L755R-TW	5.4	7.5	25	13	27	95	0.040	1.30	-40°C to +85°C
CHT-5R5L474R-TW	5.5	0.47	16	8	14	320	0.006	0.47	-40°C to +85°C
CHT-5R5L504R-TW	5.5	0.50	16	8	14	320	0.006	0.50	-40°C to +85°C
CHT-5R5L105R-TW	5.5	1.0	16	8	18	240	0.010	0.61	-40°C to +85°C
CHT-5R5L155R-TW	5.5	1.5	16	8	22	200	0.012	0.74	-40°C to +85°C
CHT-5R5L255R-TWX	5.5	2.5	16	8	27	180	0.015	0.87	-40°C to +85°C
CHT-5R5L255R-TW	5.5	2.5	20	10	22	150	0.015	0.97	-40°C to +85°C
CHT-5R5L355R-TWX	5.5	3.5	20	10	27	120	0.020	1.20	-40°C to +85°C
CHT-5R5L355R-TW	5.5	3.5	20	10	22	140	0.022	1.00	-40°C to +85°C
CHT-5R5L505R-TW	5.5	5.0	20	10	27	120	0.030	1.20	-40°C to +85°C
CHT-5R5L505R-TWX	5.5	5.0	25	13	22	90	0.030	1.42	-40°C to +85°C
CHT-5R5L505R-TWQ	5.5	5.0	20	10	32	90	0.030	1.43	-40°C to +85°C
CHT-5R5L755R-TW	5.5	7.5	25	13	27	95	0.060	1.30	-40°C to +85°C
CHT-5R5L805R-TW	5.5	8.0	25	13	27	80	0.040	1.66	-40°C to +85°C
CHT-5R5L106R-TW	5.5	10	25	13	32	70	0.055	1.93	-40°C to +85°C
CHT-5R5L126R-TW	5.5	12.5	32	16	32	50	0.068	2.41	-40°C to +85°C
CHT-5R5L156R-TW	5.5	15	32	16	32	40	0.075	2.92	-40°C to +85°C
CHT-5R5L256R-TW	5.5	25	36	18	42	32	0.105	3.96	-40°C to +85°C
CHT-5R5L306R-TW	5.5	30	36	18	42	30	0.120	4.34	-40°C to +85°C
CHT-5R5L506R-TW	5.5	50	36	18	62	26	0.240	5.30	-40°C to +85°C



Feature

- High power,high energy density
- Long cycle life,maintenance-free
- 6.0V High Operating Voltage
- Lead terminals can be customized
- Low ESR, Low Leakage Current
- REACH,RoHS Directive Compliant

Application

- Camera Flash System
- Energy Harvesting
- GSM/GPRS, Pulse Applications
- UPS/Industrial
- Wireless Alarms, Remote Metering
- Scanners
- Toys and Games

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			W	D	L				
CSP-6ROL104R-TW	6.0	0.1	10	5	12	900	0.001	0.10	-40°C to +65°C
CSP-6ROL124R-TW	6.0	0.12	9	4	12	2000	0.001	0.09	-40°C to +65°C
CSP-6ROL224R-TW	6.0	0.22	10	5	14	900	0.002	0.15	-40°C to +65°C
CSP-6ROL224R-TWX	6.0	0.22	13	7	14	400	0.006	0.18	-40°C to +65°C
CSP-6ROL474R-TWQ	6.0	0.47	9	4	27	1100	0.003	0.18	-40°C to +65°C
CSP-6ROL504R-TWX	6.0	0.5	13	7	14	400	0.006	0.16	-40°C to +65°C
CSP-6ROL155R-TWQ	6.0	1.5	13	7	24	190	0.010	0.53	-40°C to +65°C
CSP-6ROL225R-TW	6.0	2.2	13	7	27	190	0.010	0.56	-40°C to +65°C
CSP-6ROL474R-TW	6.0	0.47	16	8	14	320	0.007	0.47	-40°C to +65°C
CSP-6ROL504R-TW	6.0	0.50	16	8	14	350	0.007	0.50	-40°C to +65°C
CSP-6ROL105R-TW	6.0	1.0	16	8	18	240	0.012	0.61	-40°C to +65°C
CSP-6ROL155R-TWX	6.0	1.5	16	8	18	260	0.013	0.59	-40°C to +65°C
CSP-6ROL155R-TW	6.0	1.5	16	8	22	200	0.014	0.74	-40°C to +65°C
CSP-6ROL255R-TWX	6.0	2.5	16	8	27	180	0.018	0.87	-40°C to +65°C
CSP-6ROL255R-TW	6.0	2.5	20	10	22	150	0.018	0.97	-40°C to +65°C
CSP-6ROL305R-TW	6.0	3.0	20	10	22	140	0.020	0.91	-40°C to +65°C
CSP-6ROL355R-TW	6.0	3.5	20	10	22	140	0.020	0.98	-40°C to +65°C
CSP-6ROL355R-TWX	6.0	3.5	16	8	27	140	0.028	1.02	-40°C to +65°C
CSP-6ROL405R-TW	6.0	4.0	20	10	27	120	0.036	1.20	-40°C to +65°C
CSP-6ROL405R-TWX	6.0	4.0	25	13	22	120	0.036	1.20	-40°C to +65°C
CSP-6ROL505R-TWX	6.0	5.0	25	13	22	90	0.036	1.42	-40°C to +65°C
CSP-6ROL505R-TW	6.0	5.0	20	10	27	90	0.036	1.42	-40°C to +65°C
CSP-6ROL505R-TWQ	6.0	5.0	20	10	32	120	0.036	1.52	-40°C to +65°C
CSP-6ROL755R-TW	6.0	7.5	25	13	27	80	0.048	1.66	-40°C to +65°C
CSP-6ROL755R-TWQ	6.0	7.5	25	13	32	90	0.084	1.75	-40°C to +65°C
CSP-6ROL755R-TWX	6.0	7.5	25	13	22	80	0.030	1.35	-40°C to +65°C
CSP-6ROL106R-TW	6.0	10	25	13	32	70	0.066	1.93	-40°C to +65°C
CSP-6ROL106R-TWX	6.0	10	25	13	28	60	0.050	1.66	-40°C to +65°C
CSP-6ROL126R-TW	6.0	12	32	16	27	50	0.082	2.41	-40°C to +65°C
CSP-6ROL156R-TW	6.0	15	32	16	32	40	0.090	2.92	-40°C to +65°C
CSP-6ROL256R-TW	6.0	25	37	18	42	32	0.126	3.96	-40°C to +65°C
CSP-6ROL306R-TW	6.0	30	37	18	42	30	0.145	4.07	-40°C to +65°C
CSP-6ROL506R-TW	6.0	50	37	18	62	25	0.260	5.27	-40°C to +65°C
CSP-6ROL606R-TW	6.0	60	37	18	62	24	0.280	5.57	-40°C to +65°C



Feature

- High Pulse Power Capability
- Low Leakage Current, Low ESR
- Large capacitance for high energy density
- High Operating Voltage
- REACH,RoHS Directive Compliant

Application

- Camera Flash Systems
- Energy Harvesting
- GSM/GPRS Pulse Applications ,UPS/Industrial
- Wireless Alarms
- Remote Metering
- Scanners ,Toys and Games.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
				W	D	L				
CZP	CZP-7R5L334R-TW	7.5	0.33	24	8	14	450	0.006	0.38	-40°C to +65°C
	CZP-7R5L604R-TW	7.5	0.6	24	8	18	225	0.009	0.45	-40°C to +65°C
	CZP-7R5L105R-TW	7.5	1	24	8	22	180	0.011	0.56	-40°C to +65°C
	CZP-7R5L155R-TW	7.5	1.5	32	11	22	300	0.020	0.79	-40°C to +65°C
	CZP-7R5L225R-TW	7.5	2.2	32	11	22	250	0.023	0.93	-40°C to +65°C
	CZP-7R5L335R-TW	7.5	3.3	32	11	31	200	0.030	1.24	-40°C to +65°C
	CZP-7R5L505R-TW	7.5	5	38	13	28	160	0.055	1.80	-40°C to +65°C
	CZP-7R5L655R-TW	7.5	6.5	38	13	28	150	0.070	1.95	-40°C to +65°C
	CZP-8R1L334R-TW	8.1	0.33	24	8	14	500	0.007	0.24	-40°C to +65°C
	CZP-8R1L604R-TW	8.1	0.6	24	8	18	400	0.009	0.41	-40°C to +65°C
	CZP-8R1L105R-TW	8.1	1.0	24	8	22	350	0.012	0.50	-40°C to +65°C
	CZP-9R0L334R-TW	9.0	0.33	24	8	14	500	0.007	0.26	-40°C to +65°C
	CZP-9R0L604R-TW	9.0	0.6	24	8	18	400	0.012	0.38	-40°C to +65°C
	CZP-9R0L105R-TW	9.0	1.0	24	8	22	350	0.018	0.53	-40°C to +65°C
	CZP-9R0L155R-TW	9.0	1.5	32	11	22	240	0.015	0.77	-40°C to +65°C
	CZP-9R0L225R-TW	9.0	2.2	32	11	22	240	0.015	0.77	-40°C to +65°C
	CZP-9R0L335R-TW	9.0	3.3	32	11	31	120	0.025	1.38	-40°C to +65°C

Feature

- High power,high energy density
- Low leakage current, long life
- Fully sealed, Moisture Resistant Version
- High Reliability
- REACH,RoHS Directive Compliant

Application

- Consumer electronics
- GSM/GPRS Pulse Applications
- Back up power
- Stand alone or augment existing
- Energy/power source

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
				W	D	L				
CHM	CHM-5R5L104R-TW	5.5	0.1	10	5	13	2100	0.001	0.08	-40°C to +65°C
	CHM-5R5L224R-TW	5.5	0.22	15	8	16	700	0.003	0.16	-40°C to +65°C
	CHM-5R5L334R-TW	5.5	0.33	18	9	16	600	0.003	0.21	-40°C to +65°C
	CHM-5R5L474R-TW	5.5	0.47	18	9	16	380	0.003	0.26	-40°C to +65°C
	CHM-5R5L474R-TWX	5.5	0.47	15	8	14	500	0.003	0.16	-40°C to +65°C
	CHM-5R5L105R-TW	5.5	1.0	18	9	20	250	0.007	0.44	-40°C to +65°C
	CHM-5R5L155R-TW	5.5	1.5	18	9	24	200	0.012	0.54	-40°C to +65°C
	CHM-5R5L255R-TW	5.5	2.5	23	12	25	180	0.020	0.75	-40°C to +65°C
	CHM-5R5L355R-TW	5.5	3.5	23	12	25	160	0.023	0.79	-40°C to +65°C
	CHM-5R5L505R-TW	5.5	5.0	23	12	25	150	0.028	1.17	-40°C to +65°C
	CHM-6R0L104R-TW	6.0	0.1	10	5	13	2100	0.001	0.08	-40°C to +65°C
	CHM-6R0L224R-TW	6.0	0.22	15	8	16	700	0.003	0.18	-40°C to +65°C
	CHM-6R0L334R-TW	6.0	0.33	18	9	16	600	0.003	0.26	-40°C to +65°C
	CHM-6R0L474R-TW	6.0	0.47	18	9	16	380	0.007	0.32	-40°C to +65°C
	CHM-6R0L474R-TWX	6.0	0.47	15	8	14	500	0.003	0.16	-40°C to +65°C
	CHM-6R0L105R-TW	6.0	1.0	18	9	20	250	0.012	0.51	-40°C to +65°C
	CHM-6R0L155R-TW	6.0	1.5	18	9	24	200	0.018	0.59	-40°C to +65°C
	CHM-6R0L255R-TW	6.0	2.5	23	12	25	180	0.020	0.81	-40°C to +65°C
	CHM-7R5L334R-TW	7.5	0.33	26	9	16	600	0.006	0.26	-40°C to +65°C
	CHM-7R5L604R-TWX	7.5	0.6	26	9	16	460	0.008	0.26	-40°C to +65°C
	CHM-7R5L604R-TW	7.5	0.6	26	9	20	350	0.008	0.44	-40°C to +65°C
	CHM-7R5L105R-TW	7.5	1	26	9	24	285	0.012	0.54	-40°C to +65°C
	CHM-8R1L334R-TW	8.1	0.33	26	9	16	500	0.003	0.26	-40°C to +65°C
	CHM-8R1L604R-TW	8.1	0.6	26	9	20	400	0.070	0.43	-40°C to +65°C
	CHM-8R1L105R-TW	8.1	1.0	26	9	24	350	0.012	0.53	-40°C to +65°C
	CHM-9R0L334R-TW	9.0	0.33	26	9	16	500	0.007	0.26	-40°C to +65°C
	CHM-9R0L604R-TW	9.0	0.6	26	9	20	400	0.012	0.43	-40°C to +65°C
	CHM-9R0L105R-TW	9.0	1.0	26	9	24	350	0.018	0.53	-40°C to +65°C
	CHM-9R0L155R-TW	9.0	1.5	26	9	24	300	0.014	0.54	-40°C to +65°C

Feature

- High power,high energy density
- Low leakage current, low self discharge
- Ultra-low ESR for high power density
- REACH,RoHS Directive Compliant

Application

- Ride thru power support,
- Back up power,
- Energy/power source,
- Battery assist for peak power,
- Bridging or hold-up power sensors

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature
			W	D	L				
CHPV-3R9L474R-TW	3.9	0.47	16	8	14	320	0.004	0.47	-40°C to +65°C
CHPV-3R9L504R-TW	3.9	0.50	16	8	14	320	0.004	0.47	-40°C to +65°C
CHPV-3R9L105R-TW	3.9	1.0	16	8	14	320	0.005	0.47	-40°C to +65°C
CHPV-3R9L105R-TWX	3.9	1.0	16	8	18	240	0.006	0.61	-40°C to +65°C
CHPV-3R9L105R-TWQ	3.9	1.0	16	8	22	200	0.010	0.74	-40°C to +65°C
CHPV-3R9L155R-TW	3.9	1.5	16	8	22	200	0.010	0.74	-40°C to +65°C
CHPV-3R9L255R-TW	3.9	2.5	20	10	22	150	0.012	0.97	-40°C to +65°C
CHPV-3R9L255R-TWX	3.9	2.5	20	10	18	180	0.012	0.80	-40°C to +65°C
CHPV-3R9L255R-TWQ	3.9	2.5	16	8	27	180	0.012	0.87	-40°C to +65°C
CHPV-3R9L305R-TW	3.9	3.0	20	10	22	150	0.015	0.97	-40°C to +65°C
CHPV-3R9L355R-TW	3.9	3.5	20	10	22	150	0.016	0.97	-40°C to +65°C
CHPV-3R9L405R-TW	3.9	4.0	20	10	27	120	0.020	1.20	-40°C to +65°C
CHPV-3R9L405R-TWX	3.9	4.0	25	13	22	90	0.020	1.42	-40°C to +65°C
CHPV-3R9L505R-TW	3.9	5.0	20	10	27	120	0.025	1.20	-40°C to +65°C
CHPV-3R9L505R-TWX	3.9	5.0	25	13	22	90	0.025	1.42	-40°C to +65°C
CHPV-3R9L505R-TWQ	3.9	5.0	20	10	32	90	0.027	1.51	-40°C to +65°C
CHPV-3R9L755R-TW	3.9	7.5	25	13	28	80	0.030	1.69	-40°C to +65°C
CHPV-3R9L755R-TWQ	3.9	7.5	25	13	32	70	0.035	1.97	-40°C to +65°C
CHPV-3R9L106R-TWQ	3.9	10	25	13	32	70	0.040	1.97	-40°C to +65°C
CHPV-3R9L106R-TWX	3.9	10	25	13	37	60	0.045	2.28	-40°C to +65°C

Feature

- High power,high energy density
- Low leakage current, long life
- Plastic, Moisture Resistant Version
- High Reliability
- REACH,RoHS Directive Compliant

Application

- Consumer electronics
- GSM/GPRS Pulse Applications
- Back up power
- Stand alone or augment existing
- Energy/power source

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(A)	Operating temperature	
			W	D	L					
CHMV	CHMV-3R9L474R-TW	3.9	0.47	18	9	16	380	0.003	0.26	-40°C to +65°C
	CHMV-3R9L105R-TW	3.9	1.0	18	9	20	250	0.007	0.44	-40°C to +65°C
	CHMV-3R9L155R-TW	3.9	1.5	18	9	24	200	0.012	0.54	-40°C to +65°C
	CHMV-3R9L255R-TW	3.9	2.5	23	12	25	180	0.020	0.75	-40°C to +65°C
	CHMV-3R9L305R-TW	3.9	3.0	23	12	25	170	0.023	0.75	-40°C to +65°C
	CHMV-3R9L355R-TW	3.9	3.5	23	12	25	160	0.023	0.79	-40°C to +65°C
	CHMV-3R9L505R-TW	3.9	5.0	23	12	25	150	0.028	1.17	-40°C to +65°C

Feature

- Low leakage current, long life
- High power,high energy density
- Small size and low-resistance
- Long cycle life,maintenance-free
- REACH,RoHS Directive Compliant

Application

- Consumer electronics,
- Industrial and Automation
- Portable Power Tools ,
- Renewable Energy Storage Systems
- Short Term UPS (Uninterruptible Power Supply).

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Peak Current(A)	Operating temperature
			W	D	L				
CPM-10R8L224R-TW	10.8	0.22	14	18	18	640	0.008	1.09	-40°C to +70°C
CPM-10R8L504R-TW	10.8	0.5	14	18	18	400	0.012	1.70	-40°C to +70°C
CPM-10R8L804R-TW	10.8	0.8	22	18	18	400	0.012	2.98	-40°C to +70°C
CPM-10R8L125R-TW	10.8	1.2	27	18	18	360	0.017	4.03	-40°C to +70°C
CPM-10R8L125R-TWX	10.8	1.2	22	21	21	300	0.017	4.32	-40°C to +70°C
CPM-10R8L175R-TW	10.8	1.7	27	18	18	360	0.017	4.86	-40°C to +70°C
CPM-10R8L175R-TWX	10.8	1.7	22	21	21	300	0.020	5.29	-40°C to +70°C
CPM-10R8L255R-TW	10.8	2.5	32	18	18	200	0.032	7.11	-40°C to +70°C
CPM-10R8L255R-TWX	10.8	2.5	27	21	21	260	0.032	6.84	-40°C to +70°C
CPM-10R8L355R-TW	10.8	3.5	27	27	27	160	0.052	10.66	-40°C to +70°C
CPM-10R8L505R-TW	10.8	5	27	27	27	120	0.062	13.50	-40°C to +70°C
CPM-10R8L106R-TW	10.8	10	47	27	27	80	0.082	23.68	-40°C to +70°C
CPM-10R8L126R-TW	10.8	12	52	27	27	72	0.120	28.72	-40°C to +70°C
CPM-11ROL105R-TW	11	1	22	22	22	140	0.062	14.50	-40°C to +70°C
CPM-12ROL224R-TW	12	0.22	14	18	18	640	0.080	1.21	-40°C to +70°C
CPM-12ROL504R-TW	12	0.5	14	18	18	520	0.080	1.15	-40°C to +70°C
CPM-12ROL804R-TW	12	0.8	22	18	18	400	0.014	3.31	-40°C to +70°C
CPM-12ROL125R-TW	12	1.2	27	18	18	360	0.017	4.48	-40°C to +70°C
CPM-12ROL175R-TW	12	1.7	27	18	18	320	0.020	3.98	-40°C to +70°C
CPM-12ROL255R-TW	12	2.5	27	21	21	220	0.032	8.22	-40°C to +70°C
CPM-12ROL355R-TW	12	3.5	27	27	27	120	0.050	13.43	-40°C to +70°C
CPM-12ROL505R-TW	12	5	27	27	27	140	0.052	13.64	-40°C to +70°C
CPM-12ROL605R-TW	12	6	37	27	27	104	0.090	18.99	-40°C to +70°C



Feature

- Unique slim profile design /Lead Type Terminal
- Passive linear voltage balanced cells
- Fast charge time / Molex Mini-Lock connector
- Maintenance-free backup
- Green solution vs. batteries
- Each module has voltage balancing
- RoHS Compliant

Application

- Automatic meter readers
- Automotive subsystems
- Backup power for safe shutdown requirements
- Battery-powered tools and handheld electronic devices
- Data deduplication/Networking last gasp/RAID storage/SSD
- Wireless transmission/Servers

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Leakage Current (72hrs/mA)	Peak Current(A)	Operating temperature
			W	D	L				
CM3560S58616R0M-Z	16	58	49	226	76	19	7	212	-40°C to +65°C
CM2250S20624R0M-Z	24	20	97	55	80	65	0.7	81	-40°C to +65°C
CM3567S50627R0M-Z	27	50	200	72	90	30	2	250	-40°C to +65°C
CM60138S30730R0M-Z	30	300	200	316	180	1.2	42	3450	-40°C to +65°C
CM3585S50632R0M-Z	32	50	150	110	90	12	1.5	450	-40°C to +65°C
CM2245S50548R0M-Z	48	5	210	46	50	150	0.5	64	-40°C to +65°C
CM3566S27648R0M-Z	48	27	330	72	70	73	1.4	195	-40°C to +65°C
CM1840S30554R0M-Z	54	3	76	100	45	300	0.15	34	-40°C to +65°C
CM60138S10760R0M-Z	60	100	250	364	90	6	4	1744	-40°C to +65°C
CM3560S19664R0M-Z	64	19	220	150	65	72	2.2	240	-40°C to +65°C
CM60138S94675R0M-Z	75	94	263	515	221	10	50	2665	-40°C to +65°C
CM3566S20680R0M-Z	80	20	150	465	207	50	60	440	-40°C to +65°C
CM3560S96590R0M-Z	90	9.6	112	305	270	110	30	220	-40°C to +65°C
CM3560S11690R0M-Z	90	11	112	305	270	110	30	220	-40°C to +65°C
CM3560S13690R0M-Z	90	13	112	305	270	110	30	220	-40°C to +65°C
CM3566S17690R0M-Z	90	17	150	410	211	60	60	440	-40°C to +65°C
CM3560S10697R0M-Z	97	10	135	365	68	148	1	165	-40°C to +65°C
CM3560S605160R0M-Z	160	6	251	379	83	190	30	220	-40°C to +65°C
CM3566S106160R0M-Z	160	10	90	420	300	190	30	220	-40°C to +65°C
CM3570S505240R0M-Z	240	5	300	200	80	100	1.5	360	-40°C to +65°C
CM3585S305320R0M-Z	320	3	400	300	100	120	1.8	490	-40°C to +65°C
CM60102S935800R0M-Z	800	9.3	700	600	1800	100	6	1900	-40°C to +65°C



Feature

- Unique slim profile design /Lead Type Terminal
- Passive linear voltage balanced cells
- Fast charge time / Molex Mini-Lock connector
- Maintenance-free backup
- Green solution vs. batteries
- Each module has voltage balancing
- RoHS Compliant

Application

- Automatic meter readers
- Automotive subsystems
- Backup power for safe shutdown requirements
- Battery-powered tools and handheld electronic devices
- Data deduplication/Networking last gasp/RAID storage/SSD
- Wireless transmission/Servers

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Current(A)	Operating temperature
			W	D	L				
CMZ1030S3358R1W-DA	8.1	3.33	11	31	33	135	0.030	8.06	-40°C to +65°C
CMZ1025S3358R1W-DA	8.1	3.33	11	31	28	180	0.033	6.89	-40°C to +65°C
CMZ1325S6658R1W-DA	8.1	6.66	14	40	28	120	0.050	11	-40°C to +65°C
CMZ1625S7358R1W-DA	8.1	7.33	17	49	28	75	0.068	17.42	-40°C to +65°C
CMZ1630S1168R1W-DA	8.1	11.33	17	49	33	60	0.080	23.05	-40°C to +65°C
CMZ1346S1368R1W-DA	8.1	13.33	14	40	49	60	0.080	24.55	-40°C to +65°C
CMZ1840S1668R1W-DA	8.1	16.66	19	55	43	48	0.105	30.68	-40°C to +65°C
CMZ1840S2768R1W-DA	8.1	27.33	19	55	43	54	0.130	40.15	-40°C to +65°C
CMZ1025S25510R8W-DA	10.8	2.5	11	41	28	240	0.033	7.11	-40°C to +65°C
CMZ1326S45510R8W-DA	10.8	4.5	14	53	29	160	0.050	12.05	-40°C to +65°C
CMZ1625S55510R8W-DA	10.8	5.5	17	65	28	100	0.068	18.20	-40°C to +65°C
CMZ1630S70510R8W-DA	10.8	7	17	65	33	80	0.075	21.32	-40°C to +65°C
CMZ1635S85510R8W-DA	10.8	8.5	17	65	38	80	0.080	23.05	-40°C to +65°C
CMZ1346S10610R8W-DA	10.8	10	14	53	49	80	0.080	25.05	-40°C to +65°C
CMZ1835S11610R8W-DA	10.8	11.25	19	73	38	72	0.088	25.96	-40°C to +65°C
CMZ1840S20610R8W-DA	10.8	20.5	19	73	43	72	0.130	41.05	-40°C to +65°C
CMZ1860S25610R8W-DA	10.8	25	19	73	63	52	0.240	45.76	-40°C to +65°C
CMZ1860S30610R8W-DA	10.8	30	19	73	63	52	0.280	48.50	-40°C to +65°C
CMZ1020S40413R5W-DA	13.5	0.4	11	51	23	450	0.020	4.03	-40°C to +65°C
CMZ1020S10513R5W-DA	13.5	1	11	51	23	375	0.015	4.32	-40°C to +65°C
CMZ1303S20513R5W-DA	13.5	2	11	51	33	225	0.030	8.06	-40°C to +65°C
CMZ1320S30513R5W-DA	13.5	3	14	66	23	225	0.040	10.06	-40°C to +65°C
CMZ1325S40513R5W-DA	13.5	4	14	66	28	200	0.050	11.68	-40°C to +65°C
CMZ1335S44513R5W-DA	13.5	4.4	14	66	38	150	0.060	15.88	-40°C to +65°C
CMZ1625S50513R5W-DA	13.5	5	17	81	28	125	0.068	17.42	-40°C to +65°C
CMZ1630S56513R5W-DA	13.5	5.6	17	81	33	100	0.075	21.32	-40°C to +65°C
CMZ1346S68513R5W-DA	13.5	6.8	14	66	49	100	0.080	23.02	-40°C to +65°C
CMZ1346S80513R5W-DA	13.5	8	14	66	49	100	0.080	24.55	-40°C to +65°C
CMZ1835S90513R5W-DA	13.5	9	19	91	38	90	0.110	30.92	-40°C to +65°C
CMZ1840S12613R5W-DA	13.5	12	19	91	43	75	0.150	34.47	-40°C to +65°C
CMZ1840S16613R5W-DA	13.5	16.4	19	91	43	90	0.130	41.05	-40°C to +65°C
CMZ1860S20613R5W-DA	13.5	20	19	91	63	65	0.240	45.76	-40°C to +65°C
CMZ1860S24613R5W-DA	13.5	24	19	91	63	65	0.280	48.50	-40°C to +65°C
CMZ1025S16516R2W-DA	16.2	1.66	11	61	28	360	0.030	7.11	-40°C to +65°C
CMZ1320S25516R2W-DA	16.2	2.5	14	79	23	270	0.040	10.06	-40°C to +65°C
CMZ1330S36516R2W-DA	16.2	3.66	14	79	33	210	0.055	13.17	-40°C to +65°C
CMZ1630S46516R2W-DA	16.2	4.66	17	97	33	120	0.075	21.32	-40°C to +65°C
CMZ1635S56516R2W-DA	16.2	5.66	17	97	38	120	0.080	23.05	-40°C to +65°C
CMZ1835S58516R2W-DA	16.2	5.83	19	109	38	108	0.088	25.96	-40°C to +65°C
CMZ1346S66516R2W-DA	16.2	6.66	14	79	43	120	0.080	24.55	-40°C to +65°C
CMZ1840S75516R2W-DA	16.2	7.5	19	109	38	96	0.105	30.68	-40°C to +65°C
CMZ1840S10616R2W-DA	16.2	10	19	109	43	90	0.150	34.47	-40°C to +65°C
CMZ1840S13616R2W-DA	16.2	13.66	19	109	43	108	0.130	41.02	-40°C to +65°C
CMZ1860S16616R2W-DA	16.2	16.6	19	109	63	78	0.240	45.76	-40°C to +65°C
CMZ1860S20616R2W-DA	16.2	20	19	109	63	78	0.280	48.50	-40°C to +65°C



Feature

- Unique slim profile design /Lead Type Terminal
- Passive linear voltage balanced cells
- Fast charge time / Molex Mini-Lock connector
- Maintenance-free backup
- Green solution vs. batteries
- Each module has voltage balancing
- RoHS Compliant

Application

- Automatic meter readers
- Automotive subsystems
- Backup power for safe shutdown requirements
- Battery-powered tools and handheld electronic devices
- Data deduplication/Networking last gasp/RAID storage/SSD
- Wireless transmission/Servers

Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Maximum Current(A)	Operating temperature
			W	D	L				
CMZ1016S50421R6W-LA	21.6	0.5	22	41	20	720	0.020	4.03	-40°C to +65°C
CMZ1020S60421R6W-LA	21.6	0.62	22	41	23	600	0.015	4.32	-40°C to +65°C
CMZ1030S12521R6W-LA	21.6	1.25	22	41	33	360	0.030	8.06	-40°C to +65°C
CMZ1330S27521R6W-LA	21.6	2.75	28	53	33	280	0.055	13.17	-40°C to +65°C
CMZ1630S35521R6W-LA	21.6	3.5	34	65	33	160	0.075	21.32	-40°C to +65°C
CMZ1630S42521R6W-LA	21.6	4.25	34	65	33	160	0.080	23.05	-40°C to +65°C
CMZ1346S50521R6W-LA	21.6	5	28	53	49	160	0.080	24.55	-40°C to +65°C
CMZ1840S56521R6W-LA	21.6	5.62	38	73	43	128	0.105	30.68	-40°C to +65°C
CMZ1840S75521R6W-LA	21.6	7.5	38	73	43	120	0.150	34.47	-40°C to +65°C
CMZ1840S10621R6W-LA	21.6	10.25	38	73	43	144	0.130	41.02	-40°C to +65°C
CMZ1860S12621R6W-LA	21.6	12.5	38	73	63	104	0.240	45.76	-40°C to +65°C
CMZ1860S15621R6W-LA	21.6	15	38	73	63	104	0.280	48.50	-40°C to +65°C
CMZ1030S12524ROW-XR	24	1.2	45	32	35	450	0.030	8	-40°C to +65°C
CMZ1625S27524ROW-XR	24	2.7	60	50	30	230	0.065	17	-40°C to +65°C
CMZ1630S33524ROW-XR	24	3.3	60	50	35	190	0.075	19	-40°C to +65°C
CMZ1635S38524ROW-XR	24	3.8	60	50	40	180	0.095	24	-40°C to +65°C
CMZ1835Q55524ROW-XR	24	5.5	66	56	40	170	0.110	30	-40°C to +65°C
CMZ1840S55524ROW-XR	24	5.5	66	56	45	150	0.105	31	-40°C to +65°C
CMZ1840S66524ROW-XR	24	6.6	66	56	45	140	0.150	35	-40°C to +65°C
CMZ1840S77524ROW-XR	24	7.7	66	56	45	140	0.125	36	-40°C to +65°C
CMZ1840S91524ROW-XR	24	9.1	66	56	45	140	0.140	38	-40°C to +65°C
CMZ1860S11624ROW-XR	24	11.1	66	56	65	130	0.350	51	-40°C to +65°C
CMZ1860S13624ROW-XR	24	13.3	66	56	65	130	0.280	52	-40°C to +65°C
CMZ1020S50427ROW-LA	27.0	0.5	22	51	23	600	0.020	5.80	-40°C to +65°C
CMZ1030S10527ROW-LA	27.0	1	22	51	33	450	0.030	8.06	-40°C to +65°C
CMZ1330S22527ROW-LA	27.0	2.2	28	66	33	350	0.055	13.17	-40°C to +65°C
CMZ1625S22527ROW-LA	27.0	2.2	34	81	28	250	0.068	17.42	-40°C to +65°C
CMZ1630S28527ROW-LA	27.0	2.8	34	81	33	200	0.075	21.32	-40°C to +65°C
CMZ1630S34527ROW-LA	27.0	3.4	34	81	33	200	0.080	23.05	-40°C to +65°C
CMZ1346S40527ROW-LA	27.0	4.0	28	66	49	200	0.080	24.55	-40°C to +65°C
CMZ1840S45527ROW-LA	27.0	4.5	38	91	43	160	0.105	30.68	-40°C to +65°C
CMZ1840S60527ROW-LA	27.0	6	38	91	43	150	0.150	34.47	-40°C to +65°C
CMZ1840S82527ROW-LA	27.0	8.2	38	91	43	180	0.130	41.02	-40°C to +65°C
CMZ1860S10627ROW-LA	27.0	10	38	91	63	130	0.240	45.76	-40°C to +65°C
CMZ1860S12627ROW-LA	27.0	12	38	91	63	130	0.280	48.50	-40°C to +65°C
CMZ1020S41432R4W-LA	32.4	0.41	22	61	23	900	0.020	5.29	-40°C to +65°C
CMZ1030S83432R4W-LA	32.4	0.83	22	61	33	540	0.030	8.06	-40°C to +65°C
CMZ1330S18532R4W-LA	32.4	1.83	28	79	33	420	0.055	13.17	-40°C to +65°C
CMZ1630S23532R4W-LA	32.4	2.33	34	97	33	240	0.075	21.32	-40°C to +65°C
CMZ1630S28532R4W-LA	32.4	2.83	34	97	33	240	0.080	23.05	-40°C to +65°C
CMZ1346S33532R4W-LA	32.4	3.33	28	79	49	240	0.080	24.55	-40°C to +65°C
CMZ1840S37532R4W-LA	32.4	3.75	38	109	43	192	0.105	30.68	-40°C to +65°C
CMZ1840S50532R4W-LA	32.4	5	38	109	43	180	0.150	34.47	-40°C to +65°C
CMZ1840S68532R4W-LA	32.4	6.83	38	109	43	216	0.130	41.02	-40°C to +65°C
CMZ1860S83532R4W-LA	32.4	8.33	38	109	63	156	0.240	45.76	-40°C to +65°C
CMZ1860S10632R4W-LA	32.4	10	38	109	63	156	0.280	48.50	-40°C to +65°C



Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CB / V-TYPE 	CB5R5223VF-ZJ	5.5	0.022	11.5	13.0	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5473VF-ZJ	5.5	0.047	11.5	13.0	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5104VF-ZJ	5.5	0.10	11.5	13.0	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5224VF-ZJ	5.5	0.22	11.5	13.0	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5334VF-ZJ	5.5	0.33	11.5	13.0	5.0	50	0.003	0.3	-25°C to +70°C
	CB5R5474VF-ZJ	5.5	0.47	11.5	13.0	5.0	50	0.003	0.3	-25°C to +70°C
H-TYPE 	CB5R5223HF-ZJP	5.5	0.022	11.5	5.5	10.0	75	0.003	0.3	-25°C to +70°C
	CB5R5473HF-ZJP	5.5	0.047	11.5	5.5	10.0	75	0.003	0.3	-25°C to +70°C
	CB5R5104HF-ZJP	5.5	0.10	11.5	5.5	10.0	75	0.003	0.3	-25°C to +70°C
	CB5R5224HF-ZJP	5.5	0.22	11.5	5.5	10.0	75	0.003	0.3	-25°C to +70°C
	CB5R5334HF-ZJP	5.5	0.33	11.5	5.5	10.0	50	0.003	0.3	-25°C to +70°C
	CB5R5474HF-ZJP	5.5	0.47	11.5	5.5	10.0	50	0.003	0.3	-25°C to +70°C
C-TYPE 	CB5R5223CF-ZJ	5.5	0.022	13.5	7.5	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5473CF-ZJ	5.5	0.047	13.5	7.5	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5104CF-ZJ	5.5	0.10	13.5	7.5	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5224CF-ZJ	5.5	0.22	13.5	7.5	5.0	75	0.003	0.3	-25°C to +70°C
	CB5R5334CF-ZJ	5.5	0.33	13.5	7.5	5.0	50	0.003	0.3	-25°C to +70°C
	CB5R5474CF-ZJ	5.5	0.47	13.5	7.5	5.0	50	0.003	0.3	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CBN / V-TYPE 	CBN5R5224VF-ZG	5.5	0.22	11.5	13.0	5.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5334VF-ZG	5.5	0.33	11.5	13.0	5.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5474VF-ZG	5.5	0.47	11.5	13.0	5.0	25	0.003	0.3	-25°C to +70°C
H-TYPE 	CBN5R5224HF-ZG	5.5	0.22	11.5	5.5	10.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5334HF-ZG	5.5	0.33	11.5	5.5	10.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5474HF-ZG	5.5	0.47	11.5	5.5	10.0	25	0.003	0.3	-25°C to +70°C
C-TYPE 	CBN5R5224CF-ZG	5.5	0.22	13.5	7.5	5.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5334CF-ZG	5.5	0.33	13.5	7.5	5.0	25	0.003	0.3	-25°C to +70°C
	CBN5R5474CF-ZG	5.5	0.47	13.5	7.5	5.0	25	0.003	0.3	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 85°C
- Long life Endurance : 2,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
	CBH3R6224VF-ZJ	3.6	0.22	11.5	13.0	5.0	75	0.002	0.3	-25°C to +85°C
	CBH3R6334VF-ZJ	3.6	0.33	11.5	13.0	5.0	50	0.002	0.3	-25°C to +85°C
	CBH3R6474VF-ZJ	3.6	0.47	11.5	13.0	5.0	50	0.002	0.3	-25°C to +85°C
	CBH3R6224HF-ZJ	3.6	0.22	11.5	5.5	10.0	75	0.002	0.3	-25°C to +85°C
	CBH3R6334HF-ZJ	3.6	0.33	11.5	5.5	10.0	50	0.002	0.3	-25°C to +85°C
	CBH3R6474HF-ZJ	3.6	0.47	11.5	5.5	10.0	50	0.002	0.3	-25°C to +85°C
	CBH3R6224CF-ZJ	3.6	0.22	13.5	7.5	5.0	75	0.002	0.3	-25°C to +85°C
	CBH3R6334CF-ZJ	3.6	0.33	13.5	7.5	5.0	50	0.002	0.3	-25°C to +85°C
	CBH3R6474CF-ZJ	3.6	0.47	13.5	7.5	5.0	50	0.002	0.3	-25°C to +85°C

Feature

- Able to be used at wide temperature from -25°C to 85°C
- Long life Endurance : 1,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
	CBW5R5104VF-ZJ	5.5	0.10	11.5	13.0	7.5	120	0.002	0.3	-25°C to +85°C
	CBW5R5224VF-ZJ	5.5	0.22	11.5	13.0	7.5	75	0.002	0.3	-25°C to +85°C
	CBW5R5334VF-ZJ	5.5	0.33	11.5	13.0	7.5	75	0.002	0.3	-25°C to +85°C
	CBW5R5104CF-ZJ	5.5	0.10	13.5	9.5	5.0	120	0.002	0.3	-25°C to +85°C
	CBW5R5224CF-ZJ	5.5	0.22	13.5	9.5	5.0	75	0.002	0.3	-25°C to +85°C
	CBW5R5334CF-ZJ	5.5	0.33	13.5	9.5	5.0	75	0.002	0.3	-25°C to +85°C

Feature

- Able to be used at wide temperature from -40°C to 85°C
- Long life Endurance : 1,000 hours at +85°C
- REACH,RoHS Directive Compliant

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
	CBL5R5473CF-ZJ	5.5	0.047	13.5	9.5	5.0	40	0.002	0.3	-40°C to +85°C
	CBL5R5104CF-ZJ	5.5	0.10	13.5	9.5	5.0	40	0.002	0.3	-40°C to +85°C
	CBL5R5224CF-ZJ	5.5	0.22	13.5	9.5	5.0	40	0.002	0.3	-40°C to +85°C
	CBL5R5334CF-ZJ	5.5	0.33	13.5	9.5	5.0	40	0.002	0.3	-40°C to +85°C

Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
<u>CBS / V-TYPE</u> 	CBS5R5224VF-ZJ	5.5	0.22	10.0	11.0	5.0	75	0.002	0.3	-25°C to +70°C
	CBS5R5334VF-ZJ	5.5	0.33	10.0	11.0	5.0	50	0.002	0.3	-25°C to +70°C
<u>H-TYPE</u> 	CBS5R5224HF-ZJ	5.5	0.22	10	4.5	10.0	75	0.002	0.3	-25°C to +70°C
	CBS5R5334HF-ZJ	5.5	0.33	10	4.5	10.0	50	0.002	0.3	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video,
- Audio, Cameras, CCTV,
- Printer, Camcorder,
- Telephones, Car stereo, E-meter,
- Toy, Computer,
- Notebook PC,
- Rice cooker,
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
<u>CE / V-TYPE</u> 	CE5R5474VF-ZJ	5.5	0.47	19.0	20.0	5.0	30	0.02	1.0	-25°C to +70°C
	CE5R5105VF-ZJ	5.5	1.0	19.0	20.0	5.0	30	0.02	1.0	-25°C to +70°C
	CE5R5155VF-ZJ	5.5	1.5	19.0	20.0	5.0	30	0.02	1.0	-25°C to +70°C
<u>H-TYPE</u> 	CE5R5474HF-ZJ	5.5	0.47	19.0	6.0	20.0	30	0.02	1.0	-25°C to +70°C
	CE5R5105HF-ZJ	5.5	1.0	19.0	6.0	20.0	30	0.02	1.0	-25°C to +70°C
	CE5R5155HF-ZJ	5.5	1.5	19.0	6.0	20.0	30	0.02	1.0	-25°C to +70°C
<u>C-TYPE</u> 	CE5R5474CF-ZJ	5.5	0.47	21.5	8.0	5.0	30	0.02	1.0	-25°C to +70°C
	CE5R5105CF-ZJ	5.5	1.0	21.5	8.0	5.0	30	0.02	1.0	-25°C to +70°C
	CE5R5155CF-ZJ	5.5	1.5	21.5	8.0	5.0	30	0.02	1.0	-25°C to +70°C
<u>V-TYPE(4-5F)</u> 	CE5R5405VF-ZJ	5.5	4.0	25.0	26.0	7.0	15	0.03	2.0	-25°C to +70°C
	CE5R5505VF-ZJ	5.5	5.0	25.0	26.0	7.0	15	0.03	2.0	-25°C to +70°C
<u>H-TYPE(4-5F)</u> 	CE5R5405HF-ZJ	5.5	4.0	25.0	7.0	26.0	15	0.03	2.0	-25°C to +70°C
	CE5R5505HF-ZJ	5.5	5.0	25.0	7.0	26.0	15	0.03	2.0	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video,
- Audio, Cameras, CCTV,
- Printer, Camcorder,
- Telephones, Car stereo, E-meter,
- Toy, Computer,
- Notebook PC,
- Rice cooker,
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CEN / V-TYPE	CEN5R5474VF-ZG	5.5	0.47	19.0	20.0	5.0	25	0.02	1.0	-25°C to +70°C
	CEN5R5684VF-ZG	5.5	0.68	19.0	20.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5105VF-ZG	5.5	1.0	19.0	20.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5155VF-ZG	5.5	1.5	19.0	20.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5205VF-ZG	5.5	2.0	19.0	20.0	5.0	20	0.02	1.0	-25°C to +70°C
H-TYPE	CEN5R5474HF-ZG	5.5	0.47	19.0	6.0	20.0	25	0.02	1.0	-25°C to +70°C
	CEN5R5684HF-ZG	5.5	0.68	19.0	6.0	20.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5105HF-ZG	5.5	1.0	19.0	6.0	20.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5155HF-ZG	5.5	1.5	19.0	6.0	20.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5205HF-ZG	5.5	2.0	19.0	6.5	20.0	20	0.02	1.0	-25°C to +70°C
C-TYPE	CEN5R5474CF-ZG	5.5	0.47	21.5	8.0	5.0	25	0.02	1.0	-25°C to +70°C
	CEN5R5684CF-ZG	5.5	0.68	21.5	8.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5105CF-ZG	5.5	1.0	21.5	8.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5155CF-ZG	5.5	1.5	21.5	8.0	5.0	20	0.02	1.0	-25°C to +70°C
	CEN5R5205CF-ZG	5.5	2.0	21.5	8.5	5.0	20	0.02	1.0	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 85°C
- Long life Endurance : 2,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CH / V-TYPE	CH3R6474VF-ZJ	3.6	0.47	19.0	20.0	5.0	25	0.01	1.0	-25°C to +85°C
	CH3R6105VF-ZJ	3.6	1.0	19.0	20.0	5.0	25	0.01	1.0	-25°C to +85°C
	CH3R6155VF-ZJ	3.6	1.5	19.0	20.0	5.0	25	0.01	1.0	-25°C to +85°C
H-TYPE	CH3R6474HF-ZJ	3.6	0.47	19.0	6.0	20.0	25	0.01	1.0	-25°C to +85°C
	CH3R6105HF-ZJ	3.6	1.0	19.0	6.0	20.0	25	0.01	1.0	-25°C to +85°C
	CH3R6155HF-ZJ	3.6	1.5	19.0	6.0	20.0	25	0.01	1.0	-25°C to +85°C
C-TYPE	CH3R6474CF-ZJ	3.6	0.47	21.5	8.0	5.0	25	0.01	1.0	-25°C to +85°C
	CH3R6105CF-ZJ	3.6	1.0	21.5	8.0	5.0	25	0.01	1.0	-25°C to +85°C
	CH3R6155CF-ZJ	3.6	1.5	21.5	8.0	5.0	25	0.01	1.0	-25°C to +85°C

Feature

- Able to be used at wide temperature from -40°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CB-N / V-TYPE 	CB5R5224VF-ZJN	5.5	0.22	11.5	13.0	5.0	75	0.003	0.3	-40°C to +70°C
	CB5R5334VF-ZJN	5.5	0.33	11.5	13.0	5.0	50	0.003	0.3	-40°C to +70°C
	CB5R5474VF-ZJN	5.5	0.47	11.5	13.0	5.0	50	0.003	0.3	-40°C to +70°C
H-TYPE 	CB5R5224HF-ZJN	5.5	0.22	11.5	5.5	10.0	75	0.003	0.3	-40°C to +70°C
	CB5R5334HF-ZJN	5.5	0.33	11.5	5.5	10.0	50	0.003	0.3	-40°C to +70°C
	CB5R5474HF-ZJN	5.5	0.47	11.5	5.5	10.0	50	0.003	0.3	-40°C to +70°C
C-TYPE 	CB5R5224CF-ZJN	5.5	0.22	13.5	7.5	5.0	75	0.003	0.3	-40°C to +70°C
	CB5R5334CF-ZJN	5.5	0.33	13.5	7.5	5.0	50	0.003	0.3	-40°C to +70°C
	CB5R5474CF-ZJN	5.5	0.47	13.5	7.5	5.0	50	0.003	0.3	-40°C to +70°C

Feature

- Able to be used at wide temperature from -40°C to 85°C
- Long life Endurance : 2,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CBH-N / V-TYPE 	CBH3R6224VF-ZJN	3.6	0.22	11.5	13.0	5.0	75	0.002	0.3	-40°C to +85°C
	CBH3R6334VF-ZJN	3.6	0.33	11.5	13.0	5.0	50	0.002	0.3	-40°C to +85°C
	CBH3R6474VF-ZJN	3.6	0.47	11.5	13.0	5.0	50	0.002	0.3	-40°C to +85°C
H-TYPE 	CBH3R6224HF-ZJN	3.6	0.22	11.5	5.5	10.0	75	0.002	0.3	-40°C to +85°C
	CBH3R6334HF-ZJN	3.6	0.33	11.5	5.5	10.0	50	0.002	0.3	-40°C to +85°C
	CBH3R6474HF-ZJN	3.6	0.47	11.5	5.5	10.0	50	0.002	0.3	-40°C to +85°C
C-TYPE 	CBH3R6224CF-ZJN	3.6	0.22	13.5	7.5	5.0	75	0.002	0.3	-40°C to +85°C
	CBH3R6334CF-ZJN	3.6	0.33	13.5	7.5	5.0	50	0.002	0.3	-40°C to +85°C
	CBH3R6474CF-ZJN	3.6	0.47	13.5	7.5	5.0	50	0.002	0.3	-40°C to +85°C

Feature

- Able to be used at wide temperature from 40°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CBS-N / V-TYPE										
	CBS5R5224VF-ZJN	5.5	0.22	10.0	11.0	5.0	75	0.002	0.3	-40°C to +70°C
	CBS5R5334VF-ZJN	5.5	0.33	10.0	11.0	5.0	50	0.002	0.3	-40°C to +70°C
H-TYPE										
	CBS5R5224HF-ZJN	5.5	0.22	10	4.5	10.0	75	0.002	0.3	-40°C to +70°C
	CBS5R5334HF-ZJN	5.5	0.33	10	4.5	10.0	50	0.002	0.3	-40°C to +70°C

Feature

- Able to be used at wide temperature from 40°C to 85°C
- Long life Endurance : 2,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CBSV-N / V-TYPE										
	CBSV3R6224VF-ZJN	3.6	0.22	10.0	11.0	5.0	75	0.002	0.3	-40°C to +85°C
	CBSV3R6224HF-ZJN	3.6	0.22	10	4.5	10.0	75	0.002	0.3	-40°C to +85°C

Feature

- Able to be used at wide temperature from -40°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH, RoHS Directive Compliant

Application

- Memory back-up for Video,
- Audio, Cameras, CCTV,
- Printer, Camcorder,
- Telephones, Car stereo, E-meter,
- Toy, Computer,
- Notebook PC,
- Rice cooker,
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CE-N / V-TYPE 	CE5R5474VF-ZJN	5.5	0.47	19.0	20.0	5.0	30	0.02	1.0	-40°C to +70°C
	CE5R5105VF-ZJN	5.5	1.0	19.0	20.0	5.0	30	0.02	1.0	-40°C to +70°C
	CE5R5155VF-ZJN	5.5	1.5	19.0	20.0	5.0	30	0.02	1.0	-40°C to +70°C
H-TYPE 	CE5R5474HF-ZJN	5.5	0.47	19.0	6.0	20.0	30	0.02	1.0	-40°C to +70°C
	CE5R5105HF-ZJN	5.5	1.0	19.0	6.0	20.0	30	0.02	1.0	-40°C to +70°C
	CE5R5155HF-ZJN	5.5	1.5	19.0	6.0	20.0	30	0.02	1.0	-40°C to +70°C
C-TYPE 	CE5R5474CF-ZJN	5.5	0.47	21.5	8.0	5.0	30	0.02	1.0	-40°C to +70°C
	CE5R5105CF-ZJN	5.5	1.0	21.5	8.0	5.0	30	0.02	1.0	-40°C to +70°C
	CE5R5155CF-ZJN	5.5	1.5	21.5	8.0	5.0	30	0.02	1.0	-40°C to +70°C

Feature

- Able to be used at wide temperature from -40°C to 85°C
- Long life Endurance : 2,000 hours at +85°C
- REACH, RoHS Directive Compliant

Application

- Memory back-up for Video
- Audio, Cameras, CCTV
- Printer, Camcorder
- Telephones, Car stereo, E-meter
- Toy, Computer
- Notebook PC
- Rice cooker
- Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CH-N / V-TYPE 	CH3R6105VF-ZJN	3.6	1.0	19.0	20.0	5.0	25	0.01	1.0	-40°C to +85°C
	CH3R6155VF-ZJN	3.6	1.5	19.0	20.0	5.0	25	0.01	1.0	-40°C to +85°C
H-TYPE 	CH3R6105HF-ZJN	3.6	1.0	19.0	6.0	20.0	25	0.01	1.0	-40°C to +85°C
	CH3R6155HF-ZJN	3.6	1.5	19.0	6.0	20.0	25	0.01	1.0	-40°C to +85°C
C-TYPE 	CH3R6105CF-ZJN	3.6	1.0	21.5	8.0	5.0	25	0.01	1.0	-40°C to +85°C
	CH3R6155CF-ZJN	3.6	1.5	21.5	8.0	5.0	25	0.01	1.0	-40°C to +85°C

Feature

- Able to be used at wide temperature from -25°C to 70°C
- Long life Endurance : 1,000 hours at +70°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video, Audio, Cameras, CCTV, Printer, Camcorder, Telephones, Car stereo, E-meter, Toy, Computer, Notebook PC, Rice cooker, Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CK / C-TYPE	CK6R3104CF-ZJ	6.3	0.1	13.5	9.5	5.0	75	0.005	1.0	-25°C to +70°C
	CK6R3334CF-ZJ	6.3	0.33	13.5	9.5	5.0	75	0.005	1.0	-25°C to +70°C
	CK6R3684CF-ZJ	6.3	0.68	21.5	10.5	5.0	50	0.005	1.0	-25°C to +70°C
	CK6R3105CF-ZJ	6.3	1.0	21.5	10.5	5.0	30	0.005	1.0	-25°C to +70°C

Feature

- Able to be used at wide temperature from -25°C to 85°C
- Long life Endurance : 1,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video, Audio, Cameras, CCTV, Printer, Camcorder, Telephones, Car stereo, E-meter, Toy, Computer, Notebook PC, Rice cooker, Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CW / C-TYPE	CW5R5474CF-ZJ	5.5	0.47	21.5	10.5	5.0	50	0.002	1.0	-25°C to +85°C
	CW5R5684CF-ZJ	5.5	0.68	21.5	10.5	5.0	50	0.002	1.0	-25°C to +85°C
	CW5R5105CF-ZJ	5.5	1.0	21.5	10.5	5.0	30	0.002	1.0	-25°C to +85°C

Feature

- Able to be used at wide temperature from -40°C to 85°C
- Long life Endurance : 1,000 hours at +85°C
- REACH,RoHS Directive Compliant

Application

- Memory back-up for Video, Audio, Cameras, CCTV, Printer, Camcorder, Telephones, Car stereo, E-meter, Toy, Computer, Notebook PC, Rice cooker, Home network etc.

	Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)			Max.ESR ESRAC (1kHz/Ω)	Maximum Leakage (72hrs/mA)	Maximum Endurance Current(mA)	Operating temperature
				ΦD	H	P				
CWH / C-TYPE	CWH5R5474CF-ZJ	5.5	0.47	21.5	10.5	5.0	20	0.002	1.0	-40°C to +85°C
	CWH5R5684CF-ZJ	5.5	0.68	21.5	10.5	5.0	20	0.002	1.0	-40°C to +85°C
	CWH5R5105CF-ZJ	5.5	1.0	21.5	10.5	5.0	20	0.002	1.0	-40°C to +85°C

Feature

- Low Self Discharge/Up to 8 times energy density compared to standard Super Capacitors
- High Capacitance, Power type
- 3.8V High Operating Voltage
- No Explosion Safety
- REACH, RoHS Directive Compliant

Application

- Continuous power support
- Back up power
- Stand alone or augment existing
- Medical backup power/alarm
- Water and gas smart meters.

LIC


Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Rated Current(A)	Operating temperature
			D	L				
LIC0613Q3R8106	3.8	10	6.3	13	1500	0.001	0.05	-20°C to +65°C
LIC0813Q3R8106	3.8	10	8	13	600	0.001	0.05	-20°C to +65°C
LIC0813Q3R8206	3.8	20	8	13	600	0.001	0.10	-20°C to +65°C
LIC1013Q3R8256	3.8	25	10	13	400	0.001	0.15	-20°C to +65°C
LIC0820Q3R8256	3.8	25	8	20	300	0.002	0.20	-20°C to +65°C
LIC1013Q3R8306	3.8	30	10	13	300	0.001	0.15	-20°C to +65°C
LIC0825Q3R8306	3.8	30	8	25	200	0.002	0.3	-20°C to +65°C
LIC0820Q3R8406	3.8	40	8	20	200	0.002	0.22	-20°C to +65°C
LIC0825Q3R8506	3.8	50	8	25	180	0.002	0.2	-20°C to +65°C
LIC1313Q3R8706	3.8	70	13	13	200	0.002	0.30	-20°C to +65°C
LIC1020Q3R8806	3.8	80	10	20	120	0.002	0.35	-20°C to +65°C
LIC0825Q3R8906	3.8	90	8	25	300	0.002	0.30	-20°C to +65°C
LIC0825Q3R8107	3.8	100	8	25	350	0.003	0.60	-20°C to +65°C
LIC1030Q3R8107	3.8	100	10	30	110	0.003	0.60	-20°C to +65°C
LIC1030Q3R8127	3.8	120	10	30	100	0.003	0.60	-20°C to +65°C
LIC1320Q3R8127	3.8	120	13	20	220	0.003	0.60	-20°C to +65°C
LIC1335Q3R8257	3.8	250	13	35	150	0.005	1.10	-20°C to +65°C
LIC1620Q3R8257	3.8	250	16	20	70	0.005	1.10	-20°C to +65°C
LIC1620Q3R8277	3.8	270	16	20	70	0.013	2.0	-20°C to +65°C
LIC1640Q3R8507	3.8	500	16	40	80	0.015	2.25	-20°C to +65°C
LIC1840Q3R8507	3.8	500	18	40	80	0.015	2.25	-20°C to +65°C
LIC1840Q3R8757	3.8	750	18	40	60	0.023	3.00	-20°C to +65°C

Feature

- Low Self Discharge/Up to 10 times energy density compared to standard Super Capacitors
- High Capacitance, Energy Storage
- 4.0V High Operating Voltage
- No Explosion Safety
- REACH, RoHS Directive Compliant

LIB


Part Number	Working Voltage (V DC)	Rated Cap. (F)	Dimensions (mm)		Max.ESR ESRAC (1kHz/mΩ)	Maximum Leakage (72hrs/mA)	Rated Current(A)	Operating temperature
			D	L				
LIB	4.0	200	10	30	180	0.003	0.4	-20°C to +65°C
	4.0	220	13	20	200	0.003	1.0	-20°C to +65°C
	4.0	350	13	30	100	0.004	1.5	-20°C to +65°C
	4.0	500	13	40	130	0.005	4.0	-20°C to +65°C
	4.0	400	16	20	200	0.015	2.0	-20°C to +65°C
	4.0	1100	18	40	65	0.023	6.0	-20°C to +65°C

臺灣智烽維科技有限公司
Taiwan Zhifengwei Technology Co., Ltd.

CDA-CAP

www.cda-cap.com

臺灣臺中市霧峰區吉峰路 4 號

TEL: +00852-51245060 E-MAIL: zfw@cda-cap.tw



Agent

Shenzhen Kaifengda Technology Co., Ltd.

Office Address: Room 4510, 45th Floor, City Hall, Century Plaza, Zhonghang Road,
Futian District, Shenzhen, Guangdong, China

TEL: +86-755-83014263 E-MAIL: ccc88@szkfd.com.cn

Web: www.szkfd.com.cn



Dealer

SHENZHEN LICHUANG E-COMMERCE CO., LTD.

Web: www.szlcsc.com



Dealer

Digi-Key Corporation

Web: www.digikey.com/

Resources & Tools

- [Web page](#)
- [Supercap calculator tool](#)
- [Product selection search tool](#)
- [Related product data download](#)

Cda[®] 智烽維

Sales Office (CDA)

Taiwan Zhifengwei Technology Co., Ltd. (China, Hong Kong)

Office: Room 02, 21/F, Xiequn Commercial Building, 38 Pitt
Street, Yau Ma Tei, Kowloon, Hong Kong.

Factory (CDA)

Zhifengwei (Chengdu) Technology Co., Ltd. (China, Chengdu)

Factory address: No. 866, Tongwang Road, Datong Industrial
Development Zone, Qingbaijiang District, Chengdu, Sichuan,
China.

