

DCN

Super Capacitors



FEATURES

Capacitance to 3500F – Very fast charge/discharge cycling – RoHS compliant
Long life – Circuit board mountable – Compact size – Low ESR – High power density
IEC 62391 compliant

APPLICATIONS

Battery backup – Pulse power – Energy harvesting – Battery alternative – Audio systems
DC-DC converters – Mechanical actuators – LED displays

Operating Temperature Range		-40°C to +60°C		
Storage Temperature		-40°C to +70°C		
Capacitance Tolerance @ 20°C		+30%/-10% (Q tolerance) +20%/-20% (M tolerance) +10%/-10% (K tolerance) +50%/-20% (S tolerance)		
Surge Voltage	WVDC	2.7	5.4	
	SVDC	2.8	5.7	
Maximum Current		See standard part listing		1 second discharge to 1/2 WVDC
Operating Current				8 second discharge to 1/2 WVDC
Leakage Current		See standard part listing		72 hours, 25°C
Load Life (25°C)		1000 hours with rated voltage applied at 60°C		
		Capacitance change		<30% of initially measured values
		ESR		<400% of initially specified values
		Leakage current		< specified maximum value
Shelf Life		500 hours with no voltage applied at 60°C		
		Capacitance change		<30% of initially measured values
		ESR		<400% of initially specified values
Life Cycles (25°C) 1 cycle = Charge to WVDC for 20s, constant voltage charging for 10s, discharge to ½ WVDC for 20s, rest for 10s		500,000 cycles		
		Capacitance change		<30% of initially measured values
		ESR		<400% of initially specified values

DCN

High pulse power,
extends battery life

Capacitance (F)	WVDC	IC PART NUMBER	MAX Current (A)	ESR AC 1 kHz (mA)	Max stored energy (mWh)	LC (μA)	Specific Energy Gravimetric Density (mWh/kg)	Specific Energy Volumetric Density (mWh/l)	Specific Energy Gravimetric Density (mWh/kg)	Specific Energy Volumetric Density (mWh/l)	Weight (grams)	Volume (mL)	Dims DxL LxHxT (mm)	Lead Spacing (mm)
1.0	2.7	105DCN2R7S	1.35	350	0.00101	0.006	1.0125	1.6786	1.25	5.207	1	0.603	8x12	3.5
1.0	5.4	105DCN5R4M	2.7	600	0.00405	0.1	1.1571	2.5192	1.111	5.207	3.5	3.305	17.5x19.5x9	12.3
1.5	5.5	155DCN5R5M	4.125	320	0.0063	0.75	1.4	1.703	8.403	10.217	4.5	3.701	17.5x23.5x9	8.3
2.0	2.7	205DCN2R7M	2.7	280	0.00203	0.01	1.5577	2.5192	1.495	7.01	1.3	0.804	8x16	3.5
2.0	5.4	205DCN5R4M	5.4	280	0.0081	0.14	1.62	2.5796	1.521	6.075	5	5.914	21.5x23.5x11	15.5
2.5	5.4	255DCN5R4Q	5.189	220	0.0105	1.25	2.101	1.945	6.875	6.366	5	5.4	21.5x23.5x11	10.5
3.0	2.7	305DCN2R7Q	4.05	160	0.00304	0.005	2	2.2	12.15	18.23	1.5	1	8x20	3.5
5.0	2.7	505DCN2R7Q	6.75	110	0.0051	0.015	2.17	3.19	9.11	14.24	2.5	1.6	10x20	5
10.0	2.7	106DCN2R7M	13.5	60	0.01013	0.03	3.13	4.297	10.41	15.51	4	2.35	10x30	5
25.0	2.7	256DCN2R7Q	33.75	30	0.0253	0.049	3.85	5.04	7.79	12.1	7.2	5.02	16x25	7.5
30.0	2.7	306DCN2R7M	40.5	25	0.03038	0.065	3.5735	4.7984	2.941	8.576	8.5	6.333	16x31.5	7.5
50.0	2.7	506DCN2R7Q	67.5	25	0.05063	0.075	3.616	4.855	5.21	7.15	14	10.2	18x40	7.5
100.0	2.7	107DCN2R7Q	135	18	0.10125	0.26	4.81	5.919	6.23	8.2	21	17.1	22x45	10
100.0	2.7	107DCN2R7SLB	135	20	0.1013	50	5.3	6.6315	1.625	5.968	19.1	15.268	18x60	7.5
150.0	2.7	157DCN2R7M	202.5	25	0.1519	0.5	4.3393	6.1911	1.944	6.75	35	24.544	25x55	10
200.0	2.7	207DCN2R7M	270	20	0.2025	0.6	5.0625	5.7325	1.838	6.7	40	28.274	30x50	10
250.0	2.7	257DCN2R7SDP	338	13	0.253	125	5.6	6.51	10.78	2.6	235	38.877	30x55	10
350.0	2.7	357DCN2R7M	473	12	0.3544	175	5.0625	6.1388	2.1696	2.631	70	57.727	35x60	10
400.0	2.7	407DCN2R7K	540	8	0.405	1.2	5.7857	7.0194	1.562	5.695	70	60	35x60	22.5
500.0	2.7	507DCN2R7SEW	675	8	0.5063	250	4.9	5.5388	0.848	2.492	91.401	91.401	35x95	22.5
3,500.0	2.7	358DCN2R7SZLJ	4725	0.24	3.544	1750	5.883	7.6	10.432	33.04	602	466.53	60x165	165