DCN Super Capacitors

FEATURES

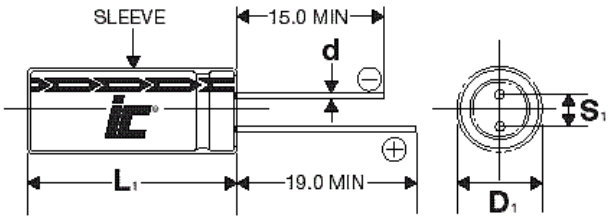
Very fast charge/discharge – High power density – IEC 62391 compliant – Circuit board mountable

APPLICATIONS

Battery backup/ alternative – Pulse power – Energy harvesting – LED Displays – Mechanical actuators – Audio systems

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**	**5.5**	
	SVDC	**2.8**	**5.7**	
Maximum Current		**See standard part listing**		1 second discharge to ½ WVDC
Operating Current		**See standard part listing**		5 second discharge to ½ WVDC
Leakage Current		**See standard part listing**		72 hours,25°C
Life Time		**1000 hours with rated voltage applied at 60°C**		
		Capacitance change		±30% of initially measured values
		ESR		≤200% 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		≤200% 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 10 s		**500,000 cycles**		
		Capacitance change		±30% of initially measured values
		ESR change		≤200% of initially specified values

D ≤ 18mm



Lead spacing VS. Case diameter						
D	4	8(L<20)	8(L≥20)	10	16	18
S	2.0	3.5	3.5	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.8	0.8

L_1=L+1.5mm
D_1=D+05mm
S_1=S±0.5mm

ILLINOIS CAPACITOR
Your Global Source for World-Class Capacitors

© 2013 Illinois Capacitor, Inc.

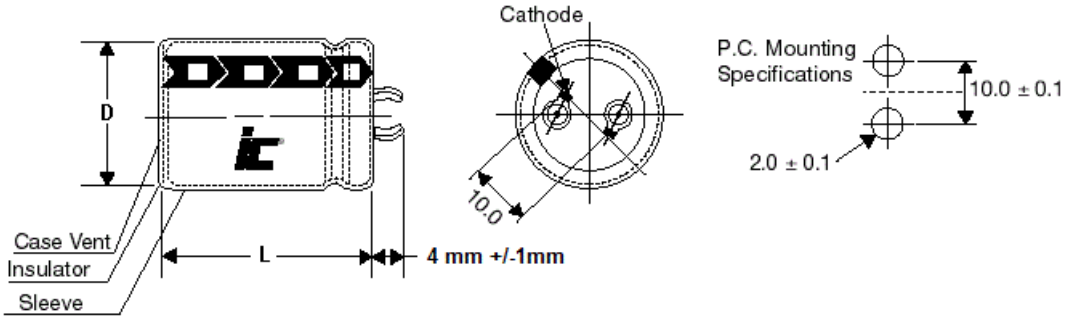
North America
Tel: 847.675.1760
sales@illcap.com

Asia
Tel: 852.2793 0931
sales@illcap.com.hk

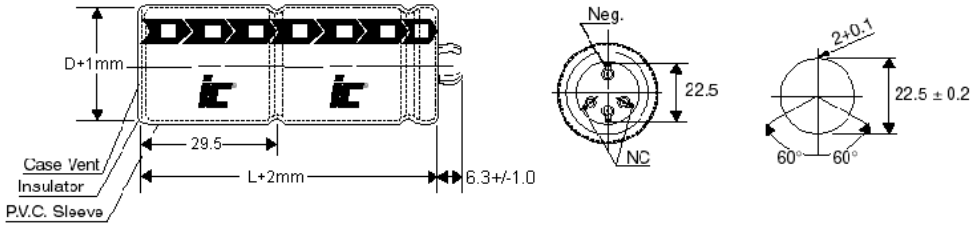
DCN
Super Capacitors

Snap in types

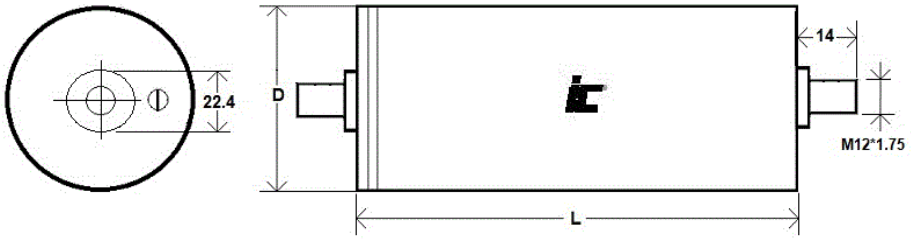
D≥20mm



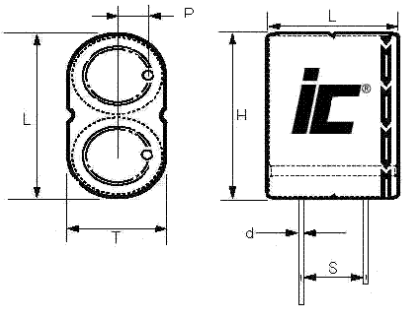
Capacitance = 400F



Capacitance = 500F to 650F



5.5 Volt units



Capacitance (F)	Dims (LxHxT) (mm) +1.0mm	Lead spacing S (mm) +/-0.5mm	Lead diameter d (mm)
1	17x19.5x9	12.3	0.6
1.5	17.5x23.5x9	10.5	0.6
2	21.5X23.5X11	10.5	0.6
2.5	21.5X23.5X11	10.5	0.6

ILLINOIS CAPACITOR
Your Global Source for World-Class Capacitors

© 2013 Illinois Capacitor, Inc.

North America
Tel: 847.675.1760
sales@illcap.com

Asia
Tel: 852.2793 0931
sales@illcap.com.hk

DCN

High pulse power, extends battery life

Capacitance (F)	WVDC	IC PART NUMBER	MAX Current (A)	ESR AC 1 kHz (mΩ)	DC ESR (mΩ) 20°C	Max stored energy (mWh)	LC (mA), (72 hrs)	Specific Energy Gravimetric Density (wh/kg)	Specific Energy Volumetric Density (wh/l)	Specific Power Gravimetric Density (kw/kg)	Specific Power Volumetric Density (kw/l)	Weight (grams)	Volume (mL)	Dims DxL LxHxT (mm)	Lead Spacing (mm)
0.3	2.7	304DCN2R7SCBB	0.5	1000	1500	0.30375	0.006	1.2	0.879	2.333	13.18	2.012	0.0138	4x11	2
1.0	2.7	105DCN2R7S	0.73	400	850	1.0125	0.008	1.0771	1.6786	1.0949	1.7062	0.94	0.603	8x12	3.5
1.0	5.5	105DCN5R5M	1.42	600	850	4.2139	0.1	1.1571	1.3187	1.1109	1.2659	3.5	3.071	17.5x19.5x9	11.8
1.5	5.5	155DCN5R5M	4.125	320	200	6.3021	0.12	1.40046	1.70269	4.0333	4.9	4.5	3.701	17.5x23.5x9	8.3
2.0	2.7	205DCN2R7S	1.39	280	470	2.025	0.01	1.7609	2.5179	1.6185	2.3143	1.15	0.804	8x16	3.5
2.0	5.5	205DCN5R5M	2.81	300	470	8.4028	0.14	2.02	10.0899	11.2	5.96	5	5.558	21x24x11	15.5
2.5	5.5	255DCN5R5Q	5.09	220	130	10.5035	0.15	2.025	1.8218	5.3834	4.8431	5	5.558	22x24x11	10.5
3.0	2.7	305DCN2R7Q	2.31	160	250	3.0375	0.012	2.2668	3.0215	2.6113	3.4807	1.34	1.005	8x20	3.5
3.3	2.7	335DCN2R7MGJG	2.36	160	270	3.34125	0.014	1.6	2.127	1.58	2.063	2.09	1.005	10x20	5
4.7	2.7	475DCN2R7SGJG	2.92	140	250	4.7588	0.016	2.2134	3.0295	1.6275	2.2277	2.15	1.571	10x20	5
5.0	2.7	505DCN2R7Q	6.75	110	200	5.0625	0.015	2.025	3.2229	1.7496	2.7846	2.5	1.571	10x20	5
10.0	2.7	106DCN2R7M	5.87	80	130	10.125	0.03	3.3638	4.2972	2.2356	2.856	3.01	2.356	10x30	5
10.0	2.7	106DCN2R7STJD	5.63	80	140	10.125	0.03	2.5859	3.3002	1.5981	2.0367	3.91	3.068	12.5x25	5
22.0	2.7	226DCN2R7SKJD	10.3	40	85	22.275	0.06	2.9542	4.4315	1.365	2.0475	7.54	5.027	16x25	7.5
25.0	2.7	256DCN2R7Q	16.46	30	60	25.3125	0.049	7.54	5.0358	3.1654	4.1437	7.54	5.027	16x25	7.5
30.0	2.7	306DCN2R7M	14.5	30	60	30.375	0.07	3.7593	5.0358	1.8045	2.4172	8.08	6.032	16x30	7.5
50.0	2.7	506DCN2R7Q	22.5	25	40	50.625	0.16	3.8912	4.9736	1.681	2.1486	13.01	10.179	18x40	7.5
100.0	2.7	107DCN2R7Q	35.5	18	28	101.25	0.3	4.6107	5.919	1.4227	1.8264	21.96	17.106	22x45	10
100.0	2.7	107DCN2R7SLB	35.5	20	28	101.25	0.3	5.0373	6.6315	1.5544	2.0463	20.1	15.268	18x60	7.5
150.0	2.7	157DCN2R7M	42.6	16	25	151.875	0.55	4.8522	5.6254	1.118	1.2961	31.3	26.998	25x55	10
200.0	2.7	207DCN2R7M	54	15	20	202.5	0.7	4.927	5.7296	1.0642	1.2376	41.1	35.343	30x50	10
250.0	2.7	257DCN2R7SDP	61.4	13	18	253.125	0.8	5.3289	6.5109	1.0297	1.2628	47.5	38.877	30x55	10
350.0	2.7	357DCN2R7M	90.9	10	12	354.375	1	5.0053	6.1388	1.0297	1.2628	70.8	57.727	35x60	10
400.0	2.7	407DCN2R7Q	93.1	8	12	405	1.2	5.7857	7.016	1.0414	1.263	70	57.7	35x60	22.5
500.0	2.7	507DCN2R7SEW	112	8	10	506.25	1.3	4.8214	5.5388	0.8331	0.9571	105	91.401	35x95	22.5
650.0	2.7	657DCN2R7SZZ	577	0.65	0.8	658.125	2.3	3.3	3.879	5.468	6.446	199	170	60x60	10

ILLINOIS CAPACITOR, INC.
Your Global Source for World-Class Capacitors
© 2013 Illinois Capacitor, Inc.
North America
Tel: 847.675.1760
sales@illcap.com

Asia
Tel: 852.2793 0931
sales@illcap.com.hk