

DCN

Super Capacitors



APPLICATIONS

- Battery backup
- Battery alternative
- Audio systems
- LED Displays
- Pulse power
- DC-DC converters
- Mechanical actuators
- Hand Held Devices

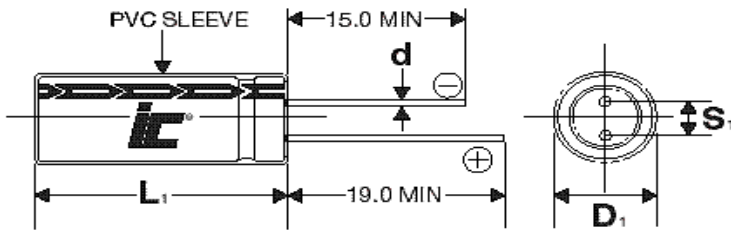
FEATURES

- High Capacitance
- Long Life
- Low ESR
- Very fast charge/discharge cycling
- Circuit board mountable
- High power density
- RoHS compliant
- Compact size
- IEC 62391 compliant

SPECIFICATIONS

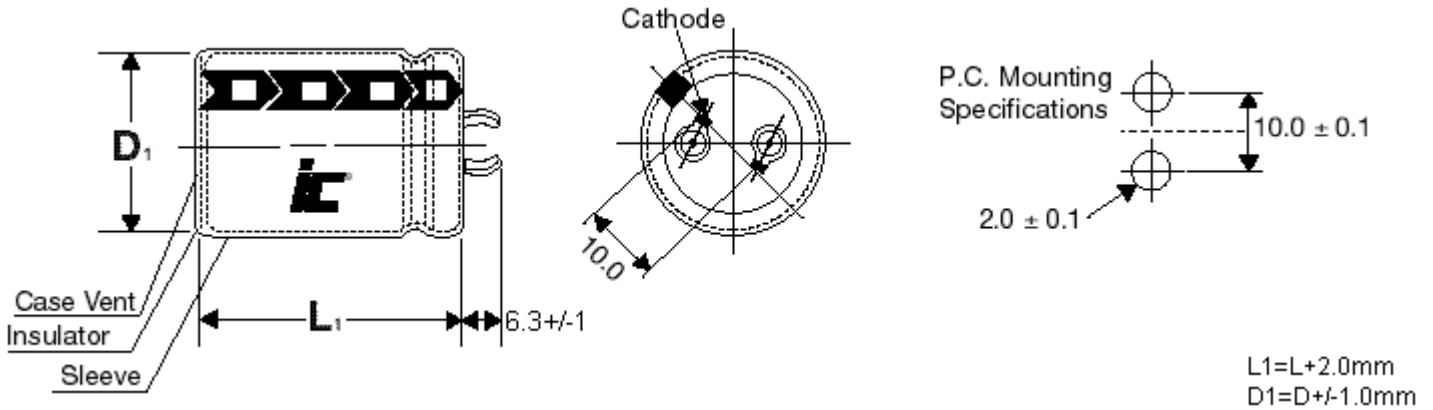
Operating Temperature Range		-40°C to +65°C		
Storage Temperature		-40°C to +70°C		
Capacitance Tolerance		+30%/-10% @ 20°C (Q tolerance code) +20%/-20% @ 20°C (M tolerance code) +10%/-10% @ 20°C (K tolerance code)		
Surge voltage	WVDC	2.7	5.4	
	SVDC	2.85	5.7	
Maximum Current		See standard part listing		1 second discharge to ½ WVDC
Leakage Current		See standard part listing		72 hours, 25°C
Life time (25°C)		10 years		
		Capacitance change	<30% of initially measured values	
		ESR	<200% of initially measured values	
		Leakage current	< specified maximum value	
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	<200% of initially measured values	
		Leakage current	< specified maximum value	





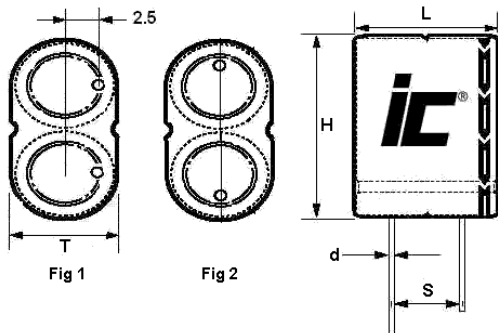
Lead spacing VS. Case diameter				
D	8	10	16	18
S	3.5	5.0	7.5	7.5
d	0.6	0.6	0.8	0.8

$L_1 = L + 1.5\text{mm}$
 $D_1 = D + 0.5\text{mm}$
 $S_1 = S + 0.5\text{mm}$



$L_1 = L + 2.0\text{mm}$
 $D_1 = D +/- 1.0\text{mm}$

5.4 Volt units only



Capacitance (F)	Dims (LxHxT) (mm) +1.0mm	Fig	Lead spacing S (mm) +/-0.5mm	Lead diameter d (mm)
0.25	17.5X15.5X9	2	12.3	0.6
0.5	17.5X15.5X9	2	12.3	0.6
1	17.5X19.5X9	2	12.3	0.6
1.5	17.5X23.5X9	1	8.5	0.6
2	21.5X23.5X11	2	15.5	0.6
2.5	21.5X23.5X11	1	10.5	0.6
3	21.5X23.5X11	2	15.5	0.6
5	22X34X11	2	15.5	0.6

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Standard Part Listing

Cap (F)	VDC	IC PART NUMBER	Max current (A)	ESR AC (mΩ, 1kHz)	ESR DC (mΩ)	Max stored energy (Wh)	LC (mA) 72Hrs, 25°C	Specific Energy Gravimetric DENSITY (Wh/kg)	Specific Energy Volumetric Density (Wh/l)	Specific power gravi Metric (kW/kg)	Specific Power volu Metric (kW/l)	Weight (grams)	Volume (mL)	Dims DxLxHxT (mm)
0.25	5.4	254DCN5R4M	0.675	1400	4000	0.001	0.02	0.7290	0.7465	0.405	0.415	2.5	2.441	17.5x15.5x9
0.5	2.7	504DCN2R7M	0.675	700	2000	0.0005	0.002	0.9113	1.5107	0.5063	0.839	1	0.603	8x12
0.5	5.4	504DCN5R4M	1.35	700	1400	0.002	0.06	2.0829	2.1330	0.81	0.829	2.5	2.441	17.5x15.5x9
1	2.7	105DCN2R7M	1.35	350	700	0.001	0.006	2.6036	4.3164	1.0125	1.679	1	0.603	8x12
1	5.4	105DCN5R4M	2.7	600	900	0.0041	0.1	2.3143	2.6374	1.1571	1.319	3.5	3.071	17.5x19.5x9
1.5	5.4	155DCN5R4Q	4.05	320	200	0.0061	0.12	10.4143	10.3581	1.7357	1.726	3.5	3.519	17.5x23.5x9
2	2.7	205DCN3R7M	2.7	280	470	0.002	.01	1.5577	2.5192	1.495	7.01	1.3	.804	8X16
2	5.4	205DCN5R4M	5.4	300	460	0.0081	0.14	3.1696	2.8515	1.62	1.457	5	5.558	21.5x23.5x11
2.5	5.4	255DCN5R4Q	6.75	220	130	0.0101	0.15	11.2154	10.0899	2.025	1.822	5	5.558	21.5x23.5x11
3	2.7	305DCN2R7Q	4.05	160	250	0.003	0.005	4.8600	7.2515	2.025	3.021	1.5	1.005	8x20
3	5.4	305DCN5R4M	8.1	220	280	0.0122	0.12	4.3393	4.6846	2.025	2.186	6	5.558	21.5x23.5x11
4	2.7	405DCN2R7M	5.4	150	230	0.0041	0.014	3.9620	5.0445	2.025	2.578	2	1.571	10x20
5	2.7	505DCN2R7Q	6.75	110	200	0.0051	0.015	3.6450	5.8012	2.025	3.223	2.5	1.571	10x20
5	5.4	505DCN5R4M	13.5	150	160	0.0203	0.3	5.6953	5.7508	2.5313	2.556	8	7.923	21.5x33.5x11
6	2.7	605DCN2R7MGU	8.1	110	140	0.0061	0.012	5.2071	8.2874	2.43	3.867	2.5	1.571	10x20
8	2.7	805DCN2R7M	10.8	100	120	0.0081	0.02	5.0625	7.7349	2.7	4.125	3	1.963	10x25
10	2.7	106DCN2R7Q	13.5	75	80	0.0101	0.03	5.6953	9.6687	2.5313	4.297	4	2.356	10x30
25	2.7	256DCN2R7Q	33.75	30	42	0.0253	0.049	6.0268	8.6327	3.5156	5.036	7.2	5.027	16x25
30	2.7	306DCN2R7M	40.5	25	35	0.0304	0.065	6.1261	8.2217	3.5735	4.796	8.5	6.333	16x31.5
50	2.7	506DCN2R7Q	67.5	20	20	0.0506	0.075	6.5089	8.9525	3.6161	4.974	14	10.179	18x40
60	2.7	606DCN2R7M	81	20	20	0.0608	0.1	5.6953	8.9525	3.7969	5.968	16	10.179	18x40
70	2.7	706DCN2R7M	94.5	20	20	0.0709	0.1	5.6953	7.9577	4.4297	6.189	16	11.451	18x45
100	2.7	107DCN2R7Q	135	15	12	0.1013	0.26	7.2321	8.8785	4.8214	5.919	21	17.106	22x45
150	2.7	157DCN2R7M	202.5	15	14	0.1519	0.5	3.7194	5.3040	4.3393	6.188	35	24.544	25x50
200	2.7	207DCN2R7M	270	12	14	0.2025	0.6	3.2545	3.6833	5.0625	5.730	40	35.343	30x50
300	2.7	307DCN2R7M	405	10	14	0.3038	0.8	2.1696	2.7061	5.0625	6.314	60	48.106	35x50
400	2.7	407DCN2R7K	540	8	12	0.405	1.2	2.1696	2.6309	5.7857	7.016	70	57.727	35x60

