



### FEATURES

High Voltage – Very Fast Charge/Discharge – High Power Density –  
Lower ESR  
RoHS Compliant

### APPLICATIONS

Battery Backup/Alternative – Pulse Power – Energy Harvesting – LED Displays – Mechanical Actuators – Audio Systems

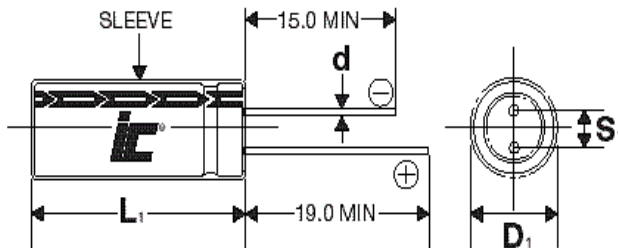
<b>Operating Temperature Range</b>	<b>-40°C to +85°C</b>	
<b>Storage Temperature</b>	<b>-40°C to +70°C</b>	
<b>Capacitance Tolerance @ 20°C</b>	<b>-10% +30% (Q Tolerance) -20% +20% (M Tolerance)</b>	
<b>Voltage (Vdc) (+65°C/+85°C)</b>	<b>3.0V / 2.5V</b>	
<b>Life Time</b>	<b>1500 hours with rated voltage applied at rated temperature</b>	
	<b>Capacitance change</b>	±30% of initially measured values
	<b>ESR</b>	<200% of initially specified values*
	<b>Leakage current</b>	≤100% specified maximum value
<b>Shelf Life</b>	<b>1000 hours with no voltage applied at 60°C</b>	
	<b>Capacitance change</b>	±30% of initially measured values
	<b>ESR</b>	<200% of initially specified values
<b>Life Cycles</b> ( 25°C) 1 cycle= Charge to WVDC for 20s, constant voltage charging for 10s, discharge to ½ WVDC for 20s, rest for 10s	<b>500,000 cycles</b>	
	<b>Capacitance change</b>	±30% of initially measured values
	<b>ESR change</b>	<200% of initially specified values

\*ESR change ≤4x at 85°C

[RoHS Compliant](#)

810a Recognized

### Diameter 6.3 mm to 18 mm

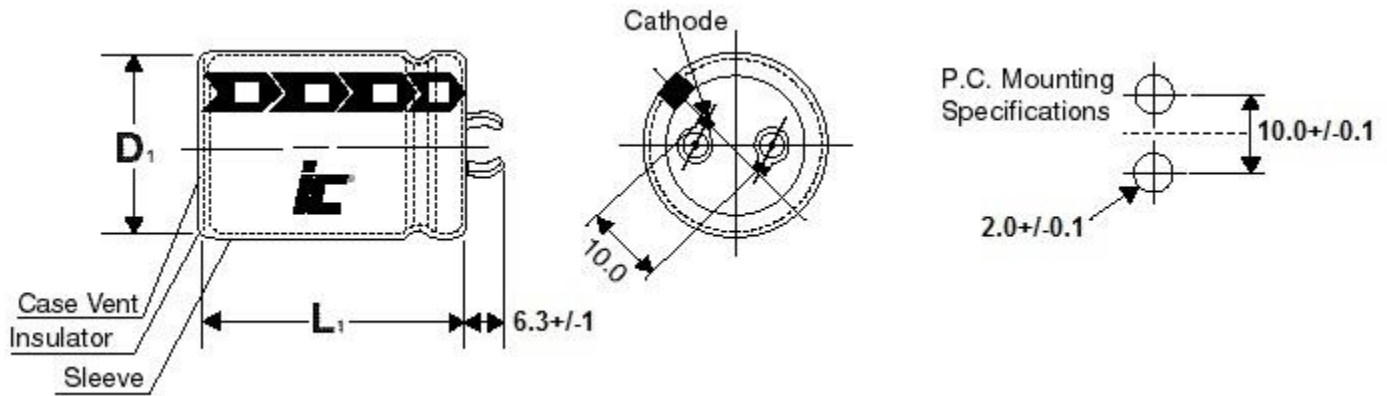


Lead spacing VS. Case diameter						
<b>D</b>	<b>6.3</b>	<b>8</b>	<b>10</b>	<b>12.5</b>	<b>16</b>	<b>18</b>
<b>S</b>	2.5	3.5	5.0	5.0	7.5	7.5
<b>d</b>	0.6	0.6	0.6	0.6	0.8	0.8
<b>α</b>	1.5	1.5	2.0	2.0	2.0	2.0

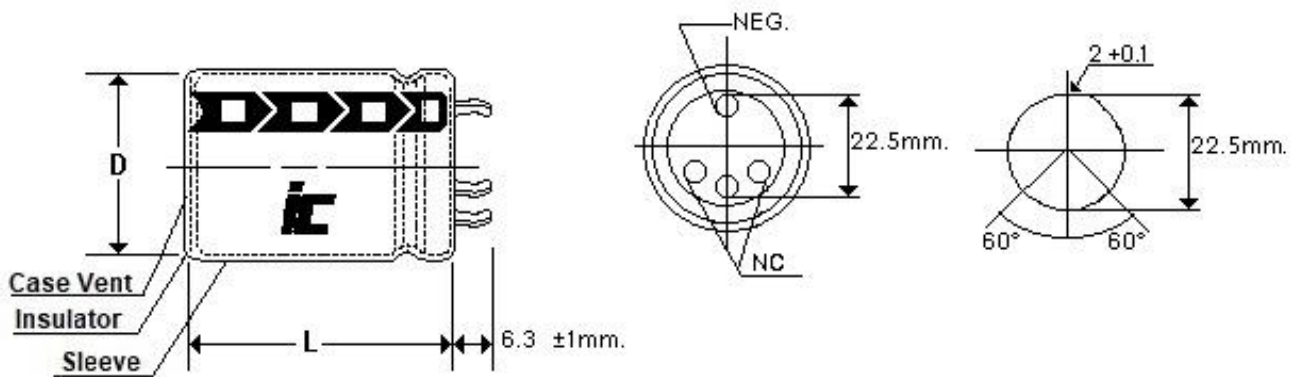
L<sub>1</sub>=L+α mm  
D<sub>1</sub>=D+0.5 mm  
S<sub>1</sub>=S±0.5 mm



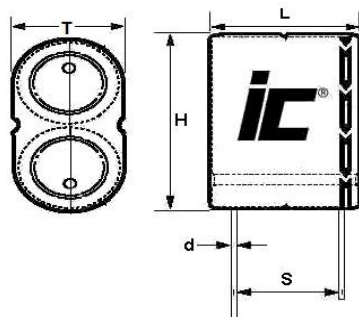
### Diameter > 18 mm to < 35 mm



### Diameter 35 mm



### Capacitance 1.5F to 5F 6 Volts



Capacitance (F)	Dims (LxHxT) (mm) +1.0 mm	Lead spacing (S) (mm) +/-0.5 mm	Lead diameter (d) (mm)
1.5	17x23x8.5	12	0.6
2.5	21x23x11	15.5	0.6
3.5	21x27x11	15.5	0.6
5	21x32x11	15.5	0.6

# DSF

High pulse power, extends battery life

WVDC	Capacitance (F)	IC PART NUMBER	Weight (grams)	Volume (mL)	Dims DxL LxHxT (mm)	Lead Spacing S (mm)	Lead Diameter d (mm)
3	1.2	<a href="#">DSF125M3R0</a>	0.8	0.47	6.3x15	2.5	0.5
3	1.5	<a href="#">DSF155M3R0</a>	0.95	0.56	6.3x18	2.5	0.5
3	3.0	<a href="#">DSF305Q3R0</a>	1.4	1.01	8x20	3.5	0.6
3	4.0	<a href="#">DSF405M3R0</a>	1.4	1.01	8x20	3.5	0.6
3	5.0	<a href="#">DSF505Q3R0</a>	2.1	1.57	10x20	5	0.6
3	7.0	<a href="#">DSF705Q3R0</a>	2.3	1.96	10x25	5	0.6
3	10.0	<a href="#">DSF106Q3R0</a>	3.2	2.36	10x30	5	0.6
3	11.0	<a href="#">DSF116Q3R0</a>	3.2	2.36	10x30	5	0.6
3	25.0	<a href="#">DSF256Q3R0</a>	7	5.03	16x25	7.5	0.8
3	50.0	<a href="#">DSF506Q3R0</a>	12.8	10.18	18x40	7.5	0.8
3	100.0	<a href="#">DSF107Q3R0</a>	20	17.11	22x45	10	1.2
3	110.0	<a href="#">DSF117Q3R0</a>	22	15.27	18x60	7.5	0.8
3	200.0	<a href="#">DSF207Q3R0</a>	36	35.34	30x50	10	1.2
3	350.0	<a href="#">DSF357Q3R0</a>	64	57.73	35x60	22.5	1.2
3	400.0	<a href="#">DSF407Q3R0</a>	70	57.73	35x60	22.5	1.2
3	470.0	<a href="#">DSF477Q3R0</a>	70	57.73	35x60	22.5	1.2
3	600.0	<a href="#">DSF607Q3R0</a>	82	67.35	35x70	22.5	1.2
6	1.5	<a href="#">DSF155Q6R0HAE</a>	3	2.97	17x23x8.5	12	0.6
6	2.5	<a href="#">DSF255Q6R0JBE</a>	5.2	4.97	21x23x11	15.5	0.6
6	3.5	<a href="#">DSF355Q6R0JBF</a>	6	5.83	21x27x11	15.5	0.6
6	5.0	<a href="#">DSF505Q6R0JBG</a>	8.3	6.91	21x32x11	15.5	0.6

# DSF

High pulse power, extends battery life

WVDC	Capacitance (F)	IC PART NUMBER	MAX Current (A) (1 Sec.)	Maximum Continuous Current (A) ( $\Delta T=15^{\circ}C$ )	Short Circuit Current (A)	ESR AC 1 kHz (m $\Omega$ )	DC ESR (m $\Omega$ ) 20°C	Max stored energy (mWh)	LC (mA), (72 hrs)	Energy Density (Wh/kg)	Energy Volumetric Density (Wh/l)	Power Density (kW/kg)	Power Volumetric Density (kW/l)
3	1.2	<a href="#">DSF125M3R0</a>	0.98	0.11	4.29	350	700	1.5	0.01	1.88	3.21	1.93	3.3
3	1.5	<a href="#">DSF155M3R0</a>	1.15	0.14	4.6	320	640	1.88	0.008	1.97	3.34	1.78	3.01
3	3.0	<a href="#">DSF305Q3R0</a>	3.1	1.4	20	80	150	3.75	0.014	2.67	3.71	5.14	6.6
3	4.0	<a href="#">DSF405M3R0</a>	3.66	0.38	18.75	80	160	5	0.012	3.57	4.97	4.82	6.71
3	5.0	<a href="#">DSF505Q3R0</a>	4.5	2.2	23	70	130	6.25	0.02	2.97	3.98	3.95	5.29
3	7.0	<a href="#">DSF705Q3R0</a>	6.7	2.4	38	55	80	8.75	0.03	3.8	4.46	5.86	6.88
3	10.0	<a href="#">DSF106Q3R0</a>	9.4	3.4	50	40	60	12.5	0.045	3.9	5.29	5.625	7.62
3	11.0	<a href="#">DSF116Q3R0</a>	7.86	1.02	30	50	100	13.75	0.045	4.3	5.83	3.38	4.58
3	25.0	<a href="#">DSF256Q3R0</a>	20	4.4	86	25	35	31.25	0.1	4.46	6.21	4.4	6.13
3	50.0	<a href="#">DSF506Q3R0</a>	35.7	7.1	136	15	22	62.5	0.15	4.88	6.14	3.83	4.82
3	100.0	<a href="#">DSF107Q3R0</a>	68.2	8.3	250	8	12	125	0.3	5.95	7.31	4.29	5.26
3	110.0	<a href="#">DSF117Q3R0</a>	59.8	6.3	188	10	16	137.5	0.21	6.25	9.005	3.07	4.421
3	200.0	<a href="#">DSF207Q3R0</a>	100	10	300	6	10	250	0.7	6.94	7.07	3	3.06
3	350.0	<a href="#">DSF357Q3R0</a>	236	18.9	857	3	3.5	437.5	1	6.73	7.58	4.75	5.35
3	400.0	<a href="#">DSF407Q3R0</a>	250	18.9	857	3	3.5	500	1	7.35	8.66	4.96	5.85
3	470.0	<a href="#">DSF477Q3R0</a>	267	18.9	857	3	3.5	587.5	1.3	8.05	10.18	4.23	5.35
3	600.0	<a href="#">DSF607Q3R0</a>	290	20	857	3	3.5	750	1.5	9.15	11.14	4.12	5.35
6	1.5	<a href="#">DSF155Q6R0HAE</a>	3.1	1.4	20	180	320	7.5	0.013	2.5	2.52	16.6	16.8
6	2.5	<a href="#">DSF255Q6R0JBE</a>	4.5	2.2	23	160	280	12.5	0.018	3.1	2.51	14.1	11.3
6	3.5	<a href="#">DSF355Q6R0JBF</a>	6.7	2.4	38	130	180	17.5	0.025	3.5	3	13.8	11.9
6	5.0	<a href="#">DSF505Q6R0JBG</a>	9.4	3.4	50	100	140	25	0.04	3.57	3.62	12.9	13