



### FEATURES

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 +65°C (-40 to +85°C @ 2.3V)</b>		
<b>Storage Temperature</b>		<b>-40°C to +70°C</b>		
<b>Capacitance Tolerance @ 20°C</b>		<b>+30%/-10% (Q tolerance)</b>		
<b>Voltage</b>	<b>WVDC</b>	<b>2.7</b>	<b>5.5</b>	
	<b>SVDC</b>	<b>2.85</b>	<b>5.8</b>	
<b>Life Time</b>	<b>1000 hours with rated voltage applied at 65°C</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		

**D = 8 to 18mm**

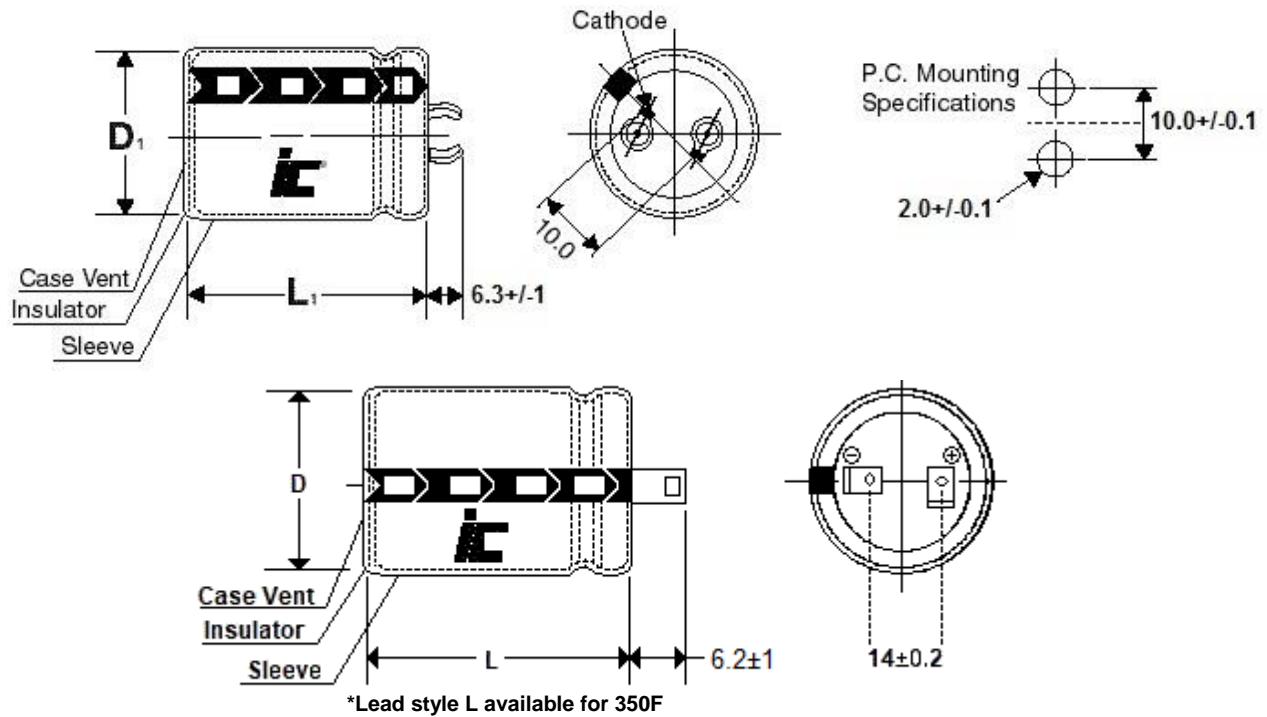


Lead spacing VS. Case diameter					
<b>D</b>	8	10	12.5	16	18
<b>S</b>	3.5	5.0	5.0	7.5	7.5
<b>d</b>	0.6	0.6	0.6	0.8	0.8
<b>α</b>	1.5	2.0	2.0	2.0	2.0

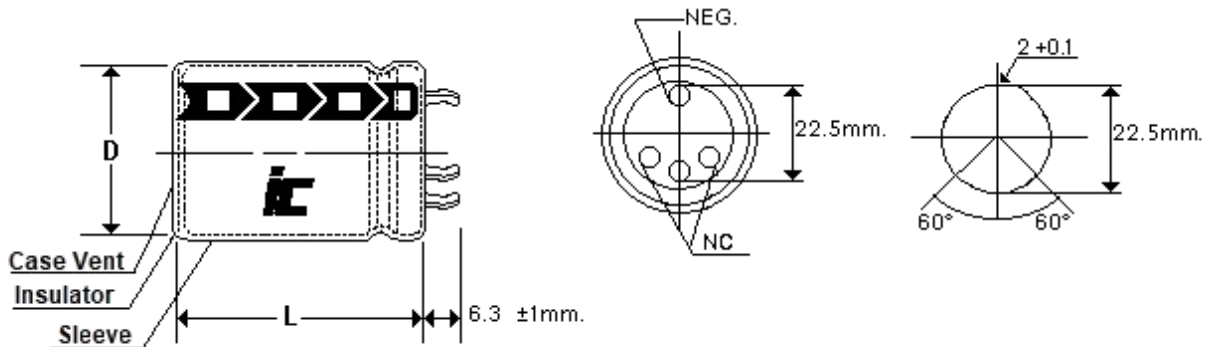
$L_1 = L + \alpha$  mm  
 $D_1 = D + 0.5$  mm  
 $S_1 = S \pm 0.5$  mm



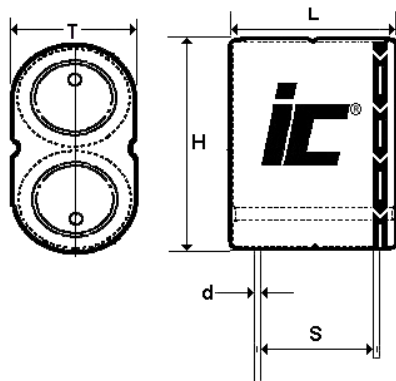
### Capacitance 100F to 350F



### Capacitance 400F to 600F



### 5.5 Volt Parts



Capacitance (F)	Dims (LxHxT) (mm) $\pm 2.0 \text{mm}$	Lead spacing (S) (mm) $\pm 0.5 \text{mm}$	Lead diameter (d) (mm)
0.5	17x15x8.5	12	0.6
1	17x17x8.5	12	0.6
1.5	17x23x8.5	12	0.6
2.5	21x23x11	15.5	0.6
3.5	21x27x11	15.5	0.6
5	26x27x13	18	0.6

# DGH

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)
2.7	1.0	DGH105Q2R7	0.96	0.6	6.8	200	400	1.01	0.008	0.92	1.44	1.988	3.109
2.7	2.0	DGH205Q2R7	1.8	0.7	11	130	250	2.03	0.01	1.688	2.879	2.916	4.975
2.7	3.0	DGH305Q2R7	2.8	1.2	18	80	150	3.04	0.012	2.17	3.023	4.166	5.804
2.7	3.3	DGH335Q2R7	3	1.2	18	80	150	3.34	0.014	2.228	3.325	3.888	5.804
2.7	5.0	DGH505Q2R7	4.1	1.3	21	70	130	5.06	0.016	2.531	3.225	3.365	4.286
2.7	6.0	DGH605Q2R7	4.6	2.3	21	70	130	6.08	0.016	2.89	3.86	3.2	4.3
2.7	7.0	DGH705Q2R7	6.1	1.7	34	55	80	7.09	0.02	2.835	3.611	4.374	5.572
2.7	10.0	DGH106Q2R7	8.4	3.5	45	40	60	10.13	0.03	3.894	5.159	5.608	7.429
2.7	10.0	DGH106Q2R7B	8.4	3.5	45	40	60	10.13	0.03	2.978	4.299	4.288	6.191
2.7	10.0	DGH106Q2R7C	8.4	3.5	45	40	60	10.13	0.03	3.38	5.16	4.86	7.4
2.7	15.0	DGH156Q2R7	11.6	2.4	54	30	50	15.19	0.045	3.375	4.127	3.888	4.755
2.7	20.0	DGH206Q2R7	15	2.6	68	30	40	20.25	0.06	3.11	4.02	3.36	4.3
2.7	25.0	DGH256Q2R7	18	3.1	77	25	35	25.31	0.08	2.978	5.038	2.941	4.975
2.7	30.0	DGH306Q2R7	21.3	4.0	90	22	30	30.38	0.1	3.79	5.03	3.64	4.8
2.7	50.0	DGH506Q2R7	32.1	5.2	123	15	22	50.63	0.14	3.616	4.976	2.84	3.909
2.7	70.0	DGH706Q2R7	39.4	5.8	135	14	20	70.88	0.16	3.938	5.573	2.43	3.439
2.7	100.0	DGH107Q2R7	61.4	8.3	225	8	12	101.25	0.3	4.821	5.922	3.471	4.264
2.7	200.0	DGH207Q2R7	90	10	270	6	10	202.5	0.7	5.192	5.732	2.243	2.476
2.7	350.0	DGH357Q2R7	212	18.9	771	3	3.5	354.38	1	5.452	6.134	3.845	4.329
2.7	350.0	DGH357Q2R7L	212	18.9	771	3	3.5	354.4	1	5.452	6.134	3.845	4.329
2.7	400.0	DGH407Q2R7	225	18.9	771	3	3.5	405	1	5.956	7.016	4.02	4.736
2.7	470.0	DGH477Q2R7	240	18.9	771	3	3.5	475.88	1.3	6.609	8.244	3.471	4.33
2.7	600.0	DGH607Q2R7	261	18	771	3	3.5	608	1.5	7.41	9.02	3.05	3.71
5.5	0.5	DGH504Q5R5	0.96	0.6	6.8	400	800	2.1	0.008	0.955	0.855	2.063	1.847
5.5	1.0	DGH105Q5R5	1.8	0.7	11	260	500	4.2	0.01	1.681	1.71	2.904	2.955
5.5	1.5	DGH155Q5R5	2.8	1.2	18	160	300	6.3	0.012	2.101	1.896	4.033	3.641
5.5	2.5	DGH255Q5R5	4.1	1.3	21	140	260	10.5	0.016	2.02	1.977	2.685	2.628
5.5	3.5	DGH355Q5R5	6.1	1.7	34	110	160	14.71	0.02	2.451	2.358	3.781	3.638
5.5	5.0	DGH505Q5R5	8.4	3.5	45	80	120	21	0.03	2.531	2.302	3.645	3.315

# DGH

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)
2.7	1.0	DGH105Q2R7	1.1	0.703	8x13	3.5	0.6
2.7	2.0	DGH205Q2R7	1.2	0.703	8x14	3.5	0.6
2.7	3.0	DGH305Q2R7	1.4	1.01	8x20	3.5	0.6
2.7	3.3	DGH335Q2R7	1.5	1.01	8x20	3.5	0.6
2.7	5.0	DGH505Q2R7	2	1.57	10x20	5	0.6
2.7	6.0	DGH605Q2R7	2.1	1.57	10x20	5	0.6
2.7	7.0	DGH705Q2R7	2.5	1.96	10x25	5	0.6
2.7	10.0	DGH106Q2R7	2.6	1.96	10x30	5	0.6
2.7	10.0	DGH106Q2R7B	3.4	2.36	12.5x25	5	0.6
2.7	10.0	DGH106Q2R7C	2.3	1.96	10x25	5	0.6
2.7	15.0	DGH156Q2R7	4.5	3.68	12.5x30	5	0.6
2.7	20.0	DGH206Q2R7	7	5.03	16x25	7.5	0.8
2.7	25.0	DGH256Q2R7	8.5	5.03	16x25	7.5	0.8
2.7	30.0	DGH306Q2R7	9.7	6.03	16x30	7.5	0.8
2.7	50.0	DGH506Q2R7	14	10.17	18x40	7.5	0.8
2.7	70.0	DGH706Q2R7	18	12.72	18x50	7.5	0.8
2.7	100.0	DGH107Q2R7	21	17.1	22x45	10	1.2
2.7	200.0	DGH207Q2R7	39	35.33	30x50	10	1.2
2.7	350.0	DGH357Q2R7	65	57.73	35x60	10	1.2
2.7	350.0	DGH357Q2R7L	65	57.73	35x60	18.4	1.2
2.7	400.0	DGH407Q2R7	68	57.73	35x60	22.5	1.2
2.7	470.0	DGH477Q2R7	72	57.73	35x60	22.5	1.2
2.7	600.0	DGH607Q2R7	82	67.35	35x70	22.5	1.2
5.5	0.5	DGH504Q5R5	2.2	2.46	17x15x8.5	12	0.6
5.5	1.0	DGH105Q5R5	2.5	2.46	17x17x8.5	12	0.6
5.5	1.5	DGH155Q5R5	3	3.32	17x23x8.5	12	0.6
5.5	2.5	DGH255Q5R5	5.2	5.31	21x23x11	15.5	0.6
5.5	3.5	DGH355Q5R5	6	6.24	21x27x11	15.5	0.6
5.5	5.0	DGH505Q5R5	8.3	9.13	26x27x13	18	0.6