



### FEATURES

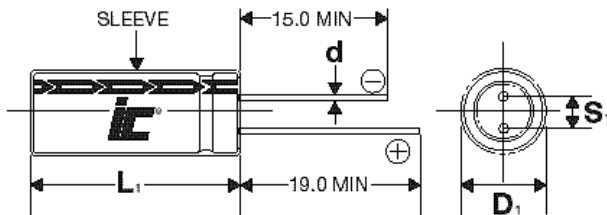
High Capacitance – Very fast charge/discharge – High power density

### APPLICATIONS

Battery backup/ alternative – LED Displays – DC/DC converters – Pulse power

<b>Operating Temperature Range</b>		<b>-25°C to +70°C</b>	
<b>Storage Temperature</b>		<b>-40°C to +70°C</b>	
<b>Capacitance Tolerance</b>		<b>+50%/-20% @ 25°C</b>	
<b>Surge voltage</b>	<b>WVDC</b>	<b>2.5</b>	
	<b>SVDC</b>	<b>2.7</b>	
<b>Maximum Current</b>		See standard part listing	<b>0.5*WVDC/(ESR<sub>DC</sub>+(1/C))</b>
<b>Leakage Current</b>		See standard part listing	72 hours, 25°C
<b>Life time</b>		<b>1000 hours at rated voltage and 70°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 10 s		<b>500,000 cycles</b>	
		<b>Capacitance change</b>	±30% of initially measured values
		<b>ESR</b>	≤200% of initially specified values

**D= 8 to 18mm**



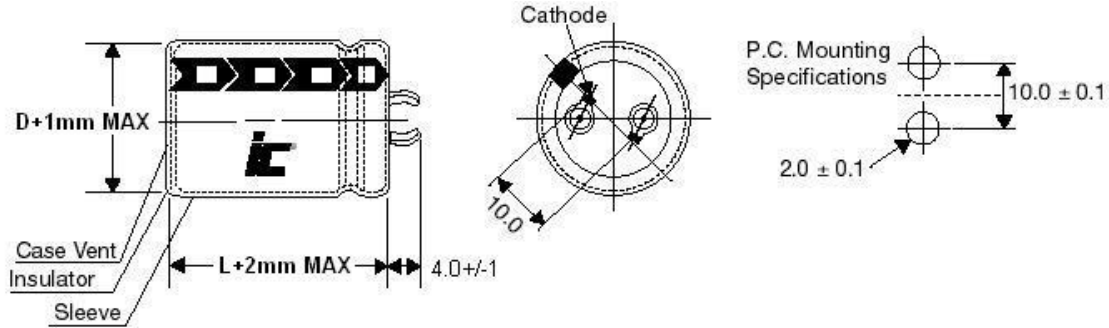
Lead spacing VS. Case diameter					
<b>D</b>	8(L>20)	8(L>20)	10	16	18
<b>S</b>	3.5	3.5	5.0	7.5	7.5
<b>d</b>	0.5	0.6	0.6	0.8	0.8

L<sub>1</sub>=L+1.5mm  
D<sub>1</sub>=D+0.5mm  
S<sub>1</sub>=S±0.5mm

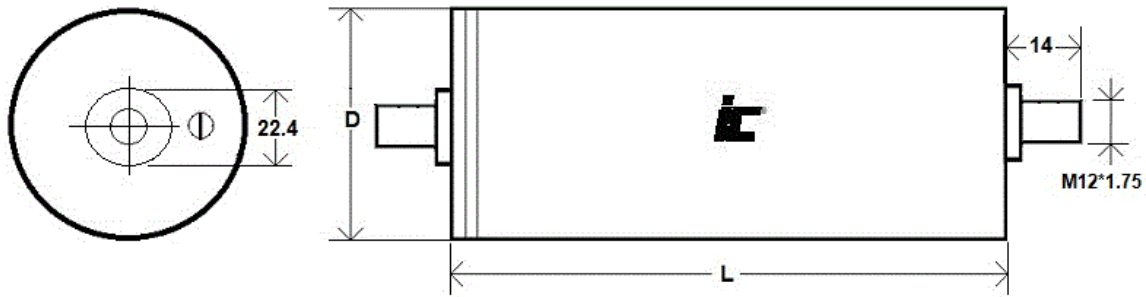


### Snap in types

$20\text{mm} \leq D < 60\text{mm}$



### Capacitance = 500F to 650F



# DER

Radial lead, +70°C

Capacitance (F)	WVDC	IC PART NUMBER	MAX Current (A)	Maximum Continuous Current (A) ( $\Delta T=15^{\circ}\text{C}$ )	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)
1.0	2.5	105DER2R5SFN	0.63	500	1000	500	1000	0.868	0.008	1.0117	1.4391	0.8741	1.2434
2.0	2.5	205DER2R5SFQ	1.19	350	550	350	550	1.736	0.01	1.6001	2.1587	1.2568	1.6955
3.0	2.5	305DER2R5SFU	1.91	200	320	200	320	2.604	0.012	2.075	2.5904	1.8675	2.3314
3.3	2.5	335DER2R5SGU	2.01	200	320	200	320	2.865	0.014	1.3641	1.8237	1.1161	1.4921
4.7	2.5	475DER2R5SGU	2.49	180	290	180	290	4.08	0.016	1.7997	2.5973	1.1408	1.6464
7.0	2.5	705DER2R5SGV	3.44	140	220	140	220	6.076	0.02	2.3736	3.0947	1.3317	1.7362
10.0	2.5	106DER2R5SGW	5	100	150	100	150	8.681	0.03	2.7957	3.6841	1.6103	2.1221
10.0	2.5	106DER2R5STV	4.81	100	160	100	160	8.681	0.03	2.4887	2.8294	1.3439	1.5279
22.0	2.5	226DER2R5SKV	8.59	60	100	60	100	19.097	0.06	2.6639	3.7993	1.0462	1.4921
30.0	2.5	306DER2R5SKW	12.1	40	70	40	70	26.042	0.07	3.1486	4.3174	1.2954	1.7763
50.0	2.5	506DER2R5SLZ	17.9	30	50	30	50	43.403	0.16	3.061	4.2641	1.058	1.4737
100.0	2.5	107DER2R5SBG	27.8	25	35	25	35	86.806	0.3	4.4379	5.0746	1.0955	1.2527
100.0	2.5	107DER2R5SLB	27.8	25	35	25	35	86.806	0.3	4.1613	5.6854	1.0273	1.4035
150.0	2.5	157DER2R5SCP	34.1	22	30	22	30	130.207	0.55	3.8523	4.8229	0.7396	0.926
200.0	2.5	207DER2R5SDH	7.4	20	25	20	25	173.611	0.7	4.4075	4.9122	0.7616	0.8488
250.0	2.5	257DER2R5SDP	48.1	18	22	18	22	217.014	0.8	4.4977	5.582	0.7065	0.8769
350.0	2.5	357DER2R5SEZ	70	12	15	12	15	303.819	1	4.5818	5.2631	0.754	0.8661
500.0	2.5	507DER2R5SEW	89	10	12	10	12	434.028	1.3	3.7	4.7486	0.5328	0.6838
650.0	2.5	657DER2R5SZZ	502	0.8	0.95	0.8	0.95	564.236	2.3	2.5	3.326	3.498	4.6537

# DER

Radial lead, +70°C

Capacitance (F)	WVDC	IC PART NUMBER	Weight (grams)	Volume (mL)	Dims DxL (mm)	Lead Spacing S (mm)	Lead Diameter d (mm)
1.0	2.5	<a href="#">105DER2R5SFN</a>	0.858	0.603	8x12	3.5	0.5
2.0	2.5	<a href="#">205DER2R5SFQ</a>	1.085	0.804	8x16	3.5	0.5
3.0	2.5	<a href="#">305DER2R5SFU</a>	1.255	1.005	8x20	3.5	0.6
3.3	2.5	<a href="#">335DER2R5SGU</a>	2.1	1.571	10x20	5	0.6
4.7	2.5	<a href="#">475DER2R5SGU</a>	2.267	1.571	10x20	5	0.6
7.0	2.5	<a href="#">705DER2R5SGV</a>	2.56	1.963	10x25	5	0.6
10.0	2.5	<a href="#">106DER2R5SGW</a>	3.105	2.356	10x30	5	0.6
10.0	2.5	<a href="#">106DER2R5STV</a>	3.488	3.068	12.5x25	5	0.6
22.0	2.5	<a href="#">226DER2R5SKV</a>	7.169	5.027	16x25	7.5	0.8
30.0	2.5	<a href="#">306DER2R5SKW</a>	8.271	6.032	16x30	7.5	0.8
50.0	2.5	<a href="#">506DER2R5SLZ</a>	13.01	10.179	18x40	7.5	0.8
100.0	2.5	<a href="#">107DER2R5SBG</a>	19.56	17.106	22x45	10	0
100.0	2.5	<a href="#">107DER2R5SLB</a>	20.86	15.268	18x60	7.5	7.5
150.0	2.5	<a href="#">157DER2R5SCP</a>	33.8	26.998	25x55	10	0
200.0	2.5	<a href="#">207DER2R5SDH</a>	39.39	35.343	30x50	10	1.5
250.0	2.5	<a href="#">257DER2R5SDP</a>	48.25	38.877	30x55	10	1.5
350.0	2.5	<a href="#">357DER2R5SEZ</a>	66.31	57.727	35x60	0	0
500.0	2.5	<a href="#">507DER2R5SEW</a>	117.3	91.4	35x95	0	0
650.0	2.5	<a href="#">657DER2R5SZZ</a>	225.7	169.65	60x60	0	0