

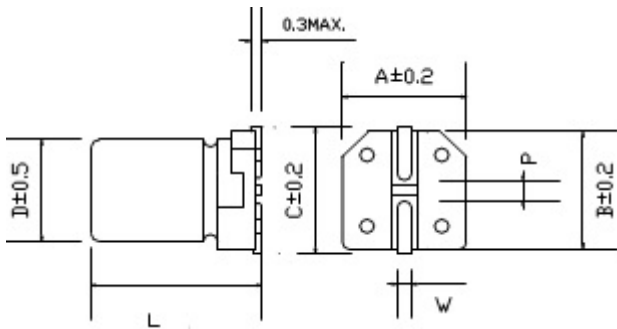
**Features**

- SMD TYPE. Conductive Polymer Aluminum Solid Capacitors
- This type has lowest ESR level and excellent performance at high frequency through low profile.
- Ideal capacitor for digital and high frequency devices.

**Characteristics**

<b>Voltage Range</b>	2.5 ~35VDC	
<b>Capacitance Range</b>	6.8uF ~ 1500uF	
<b>Temperature Range</b>	-55 ~ +105°C	
<b>Capacitance Tolerance</b>	M=+20%/-20% , K=+10%/-10% (at 20°C , 120Hz)	
<b>Leakage Current</b>	Capacitance(μF) x Rated Voltage(Vdc) After 2minutes, see standard rating	
<b>Dissipation Factor ( tanδ) 20°C 120Hz</b>	See standard rating	
<b>ESR ( at 100K~300K Hz, 20°C )</b>	See standard rating	
<b>Endurance</b> (Rated Voltage at 105°C 2000h, restored to 20°C)	Appearance	≤ No significant damage
	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≤ 150% of an initial specified value
	ESR (mΩ)	≤ 150% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value
<b>Moisture Resistance</b> (Test at 60°C, 90~95RH for 1000hrs, L.C. should be tested after voltage treatment)	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≤ 150% of an initial specified value
	ESR (mΩ)	≤ 150% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value
<b>Resistance to Soldering Heat</b>	Capacitance Change (μF)	Within ±10% of initial measured value
	Dissipation Factor (tanδ)	≤ 130% of an initial specified value
	ESR (mΩ)	≤ 130% of an initial specified value
	Leakage Current (μA)	≤ Initial specified value

**Diagram of dimensions**



**Lead Spacing And Diameter**

Case Size	φD	L	A	B	C	W	P±0.2
C6	6.3	6.0±0.2	6.6	6.6	7.4	0.5 ~ 0.8	2.0
C7	6.3	7.0±0.2	6.6	6.6	7.4	0.5 ~ 0.8	2.0
D7	8	6.7±0.3	8.4	8.4	9.2	0.7 ~ 1.1	3.1
D12	8	12.0±0.5	8.4	8.4	9.2	0.7 ~ 1.1	3.1
F8	10	8.0±0.3	10.4	10.4	11.2	0.7 ~ 1.1	4.7
F10	10	10.0-0.1/+0.5	10.4	10.4	11.2	0.7 ~ 1.1	4.7
F13	10	12.7±0.5	10.4	10.4	11.2	0.7 ~ 1.1	4.7

**Frequency coefficient for ripple current**

Frequency	120Hz ≤ f < 1KHz	1KHz ≤ f < 10KHz	10KHz ≤ f < 100KHz	100KHz ≤ f < 500KHz
Coefficient	0.05	0.3	0.7	1

**Ripple Current: mA /rms at 100kHz, 105°C**

W.V.(V)	Capacitance (μF)	Size φDxL(mm)	Size Code	Tanδ (120Hz,20C)	L.C. (μA)	E.S.R. (100k-300kHz,mΩ,2 0°C MAX)	Rated R.C (mArms at 100kHz, 105°C)
2.5(0E)	220	6.3x6	C6	0.12	110	25	2500
	560	8x7	D7	0.12	280	23	3100
	680	8x12	D12	0.18	340	13	4770
	1000	10x8	F8	0.12	500	19	4240
	1200	10x10	F10	0.18	750	13	5200
	1500	10x12.7	F13	0.18	750	10	5500
4(0G)	150	6.3x6	C6	0.12	120	26	2450
	220	8x7	D7	0.12	176	25	3020
	330	8x7	D7	0.12	264	25	3020
	470	10x8	F8	0.12	376	20	4130
	560	8x12	D12	0.18	448	12	4770
	680	10x8	F8	0.12	544	20	4130
	820	10x10	F10	0.18	656	13	5200
	1200	10x12.7	F13	0.18	960	10	5500
6.3(0J)	82	6.3x6	C6	0.12	103	27	2400
	100	6.3x6	C6	0.12	126	27	2400
	120	6.3x7	C7	0.12	151	30	2010
	150	6.3x7	C7	0.12	189	30	2250
		8x7	D7	0.12	189	25	3020
	220	6.3x7	C7	0.12	277	30	2250
		8x7	D7	0.12	277	25	3020
	330	10x8	F8	0.12	416	20	4130
	470	8x12	D12	0.15	592	12	4770
	560	10x10	F10	0.15	706	16	4700
820	10x12.7	F13	0.15	1033	10	5500	
10(1A)	56	6.3x6	C6	0.10	112	31	2250
	150	8x7	D7	0.10	300	27	2800
	330	10x8	F8	0.10	660	24	3770
		8x12	D12	0.15	660	14	4420
	470	10x10	F10	0.15	940	18	4400
	560	10x12.7	F13	0.15	1120	12	5300
16(1C)	47	6.3x6	C6	0.10	150	50	1650
	82	8x7	D7	0.10	262	30	2700
	180	8x12	D12	0.15	576	16	4360
		10x8	F8	0.10	576	26	3430
	220	10x10	F10	0.15	704	20	4200
	330	10x12.7	F13	0.15	792	14	5050
20(1D)	22	6.3x6	C6	0.10	88	50	1650
	47	8x7	D7	0.10	188	45	2000
	82	10x8	F8	0.10	328	40	2500
	100	8x12	D12	0.15	400	24	3320
		10x10	F10	0.15	400	25	3700
	150	10x12.7	F13	0.15	600	20	4320
	330	10x12.7	F13	0.12	1320	26	2700
25(1E)	6.8	6.3X6	C6	0.10	170	80	1200
	33	8X12	D12	0.12	413	30	2980
	56	10X12.7	F13	0.12	700	28	3800
	270	10X12.7	F13	0.12	1350	27	2700
35(1V)	39	8X12	D12	0.12	273	31	2100
	68	10X12.7	F13	0.12	476	28	2700