

AFX

+ 105°C Organic Semiconductor Aluminum Electrolytic Capacitors



Switching power supplies and high frequency applications

FEATURES

- **Extremely Low ESR**
- **Stable with temperature**
- **High Ripple Current (up to 10.1A)**
- **High Frequency (Up to 300kHz)**

SPECIFICATIONS

Capacitance Tolerance		±20% at 120Hz, 20°C					
Operating Temperature Range		-55°C to +105°C					
Dissipation Factor 120Hz, 20°C (Max)	WVDC	6.3	10	16	20	25	30
	tan δ	See Standard Part Listing					
Impedance Ratio at Low Temperature (120Hz)	105°C/20°C	0.75 to 1.25					
	-55°C/20°C	0.75 to 1.25					
Leakage current	WVDC	≤30 WVDC					
	Time	2 Minutes					
		See Standard Part Listing					
Reverse Voltage	<20% of rated voltage						
Load Life	2,000 hours at +105°C with rated WVDC Capacitors will meet the requirements listed below.						
	Capacitance change Dissipation factor Leakage current	≤ 25% of initial measured values ≤ 150% initial specified value ≤100% Initial specified value					
Moisture Resistance	1,000 Hours under no load at 60°C, 90-95%R.H. Capacitors will meet the requirements listed below.						
	Capacitance change Dissipation factor Leakage current	≤ 20% of initial measured values ≤ 150% initial specified value ≤100% Initial specified value					
Voltage Derating	The working voltage must be derated when used at temperatures exceeding 85°C. The voltage should be reduced by .25V for every 1°C above 85°C.						
Ripple Current Multipliers	Temperature(°C)						
	<45	45	65	85	95		
	1.0	.85	.7	.4	.25		

SPECIAL ORDER OPTIONS

- Ammo Pack
- Special tolerances: ±10% (K)
- Cut, form, cut and formed leads



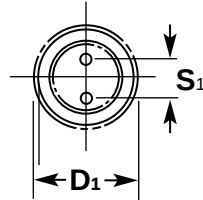
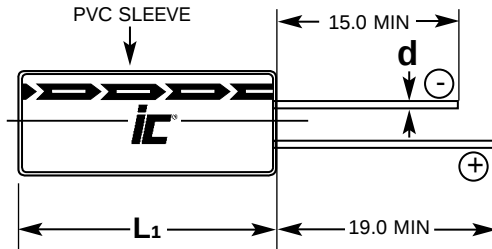
ILLINOIS CAPACITOR, INC. 3757 W. Touhy Ave., Lincolnwood, IL 60712 • (847) 675-1760 • Fax (847) 673-2850 • www.illcap.com

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PHYSICAL DIMENSIONS

WVDC (μF) (SV)	6.3 (8.2)	10 (11.5)	16 (18.4)	20 (23)	25 (32)	30 (35)
1.0					5x6.8	5x6.8
1.5					5x6.8	5x6.8
2.2					5x6.8	6.3x6.8
3.3					5x6.8	6.3x6.8
4.7			5x6.8		6.3x9.8	6.3x9.8
6.8			5x6.8		6.3x9.8	6.3x9.8
10		5x6.8			6.3x9.8	8x10.5
15	5x6.8			6.3x6.8	6.3x9.8	
22				6.3x6.8	8x10.5	10x10.5
33			6.3x9.8	6.3x9.8	10x10.5	
47	6.3x6.8		6.3x9.8	8x10.5	10x10.5	
68		6.3x9.8		8x10.5		
100			8x10.5	10x10.5		
150	8x10.5		10x10.5			
220		10x10.5				
330	10x10.5					
470			12.5x22			
1000	10x10.5		16x25			
2200	16x25					
3300	16x25					



D	5.0	6.3	8.0	10	12.5	16
d	0.5	0.5	0.6	0.6	0.8	0.8
S	2.0	2.5	3.5	5.0	5.0	7.5

D=D+0.5 mm Max.
L=L+1 mm Max.
S₁=S±0.5 mm Max.(1.0 for D=12.5, 16mm)

STANDARD PART LISTING

Capacitance (μF)	WVDC	IC PART NUMBER	Maximum (tan δ) 120Hz, +20°C	Maximum ESR mΩ 100-300kHz, +20°C	L.C. μA 2 min.	Maximum RMS Ripple Current (mA) +45°C 100kHz	Dimensions DxL (mm)
1	25	105AFX025M	.07	350	0.5	430	5x6.8
1	30	105AFX030M	.07	350	1.0	430	5x6.8
1.5	25	155AFX025M	.07	300	0.75	435	5x6.8
1.5	30	155AFX030M	.07	300	1.0	430	5x6.8
2.2	25	225AFX025M	.07	200	1.1	695	5x6.8
2.2	30	225AFX030M	.07	250	1.32	695	6.3x6.8
3.3	25	335AFX025M	.07	200	1.65	700	5x6.8
3.3	30	335AFX030M	.07	200	1.98	820	6.3x6.8
4.7	16	475AFX016M	.07	180	1.5	720	5x6.8
4.7	25	475AFX025M	.07	100	2.35	1130	6.3x6.8
4.7	30	475AFX030M	.07	120	2.82	1300	6.3x6.8
6.8	16	685AFX016M	.07	150	2.18	745	5x6.8
6.8	25	685AFX025M	.07	100	3.4	1140	6.3x6.8
6.8	30	685AFX030M	.07	120	4.08	1340	6.3x6.8
10	10	106AFX010M	.07	150	2	780	5x6.8
10	25	106AFX025M	.07	90	5	1150	6.3x6.8
10	30	106AFX030M	.07	110	6.0	1380	8x10.5
15	6.3	156AFX6R3M	.07	120	1.89	815	5x6.8
15	20	156AFX020M	.07	90	6	1200	6.3x6.8
15	25	156AFX025M	.07	70	7.5	1650	6.3x9.8
22	20	226AFX020M	.07	70	8.8	1300	6.3x6.8
22	25	226AFX025M	.07	40	11	2330	8x10.5

Capacitance (μF)	WVDC	IC PART NUMBER	Maximum (tan δ) 120Hz, +20°C	Maximum ESR mΩ 100-300kHz, +20°C	L.C. μA 2 min.	Maximum RMS Ripple Current (mA) +45°C 100kHz	Dimensions DxL (mm)
22	30	226AFX030M	.07	80	13.2	1830	10x10.5
33	16	336AFX016M	.07	70	10.6	1370	6.3x6.8
33	20	336AFX020M	.07	70	13.2	1710	6.3x9.8
33	25	336AFX025M	.07	35	16.5	2900	10x10.5
47	6.3	476AFX6R3M	.07	60	5.92	1430	6.3x6.8
47	16	476AFX016M	.07	60	15	1830	6.3x9.8
47	20	476AFX020M	.07	40	18.8	2450	8x10.5
47	25	476AFX025M	.07	35	23.5	2980	10x10.5
68	10	686AFX010M	.07	50	13.6	2000	6.3x9.8
68	20	686AFX020M	.07	36	27.2	2600	8x10.5
100	16	107AFX016M	.07	30	32	2740	8x10.5
100	20	107AFX020M	.07	30	40	3210	10x10.5
150	6.3	157AFX6R3M	.07	30	18.9	2780	8x10.5
150	16	157AFX016M	.07	28	48	3260	10x10.5
220	10	227AFX010M	.07	27	44	3370	10x10.5
330	6.3	337AFX016M	.07	25	41.6	3500	10x10.5
470	16	477AFX016M	.09	15	640	9750	12.5x22
1000	6.3	108AFX6R3M	.08	13	315	4935	10x10.5
1000	16	108AFX016M	.09	15	640	9750	16x25
2200	6.3	228AFX6R3M	.13	15	554.4	9750	16x25
3300	6.3	338AFX6R3M	.13	15	831.6	10100	16x25



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