

AFD

+ 105°C High Capacitance Organic Semiconductor Solid Aluminum Electrolytic Capacitors



Switching power supplies and high frequency applications

FEATURES

- **Extremely Low ESR**
- **Stable with temperature**
- **High Ripple Current (up to 7.1A)**
- **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	2	4	6.3	10	16	25
	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	<25 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	≤ 20% 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	For 25V capacitors 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.

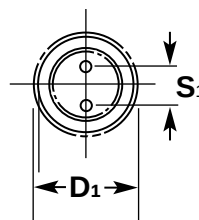
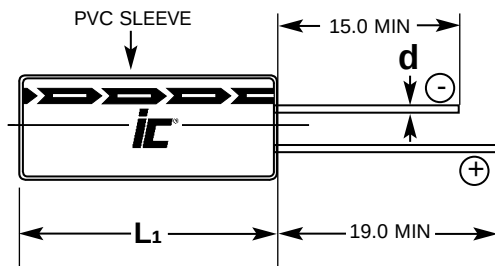
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Organic Semiconductor
Solid Aluminum
Electrolytic Capacitors

PHYSICAL DIMENSIONS

WVDC (μF)	2 (2.5)	4 (5)	6.3 (7.9)	10 (13)	16 (20)	20 (25)	25 (32)
33							8x10.5
56							10x10.5
68						6.3x9.8	
100					6.3x9.8		
120						8x10.5	
150				6.3x9.8			
180					8x10.5	10x10.5	
220			8x10.5				
270		6.3x9.8		8x10.5	10x10.5		
470				10x10.5			
560		8x10.5					
680			10x10.5				
820		10x10.5					
1000	10x10.5						
1500		10x20					
1800	10x20						
2200		12.5x22					



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

D₁=D+0.5 mm Max.

L₁=L+1 mm Max.

S₁=S±0.5 mm

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)
33	25	336AFD025M	.08	30	82.5	2780	8x10.5
56	25	566AFD025M	.08	25	140	3260	10x10.5
68	20	686AFD020M	.08	30	136	2580	6.3x9.8
100	16	107AFD016M	.08	25	160	2820	6.3x9.8
120	20	127AFD020M	.08	24	240	3110	8x10.5
150	10	157AFD010M	.08	25	150	2820	6.3x9.8
180	16	187AFD016M	.08	20	288	3410	8x10.5
180	20	187AFD020M	.08	20	360	4280	10x10.5
220	6.3	227AFD6R3M	.08	30	69.3	3000	8x10.5
270	4	277AFD004M	.08	20	108	3160	6.3x9.8
270	10	277AFD010M	.08	18	270	3600	8x10.5
270	16	277AFD016M	.08	18	432	4400	10x10.5
470	10	477AFD010M	.08	15	470	4510	10x10.5
560	4	567AFD004M	.08	14	224	4080	8x10.5
680	6.3	687AFD6R3M	.08	13	428	4840	10x10.5
820	4	827AFD004M	.08	12	328	5040	10x10.5
1000	2	108AFD002M	.08	11	400	5260	10x10.5
1500	4	158AFD004M	.1	10	600	6500	10x20
1800	2	188AFD002M	.1	10	720	6500	10x20
2200	4	228AFD004M	.13	10	880	7100	12.5x22



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