

# ALG

## Aluminum Polymer Capacitors

### High Temperature



#### FEATURES

Ultra Low ESR – Small Size - High Temperature – High Ripple Current – Stable with Temperature – High Frequency

#### APPLICATIONS

Industrial Power Supplies – Medical Equipment – Automotive

<b>Operating Temperature Range</b>		<b>-55°C to +125°C</b>				
<b>Capacitance Tolerance</b>		<b>+20% at 120 Hz, 20°C</b>				
<b>Surge Voltage</b>	<b>WVDC</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>63</b>
	<b>SVDC</b>	1.15 x rated WVDC				
<b>Dissipation Factor 120 Hz, 20°C</b>		<b>12% MAX</b>				
<b>Leakage Current</b>		<b>2 Minutes</b>				
		See standard part listing				
<b>Low Temperature Stability Impedance Ratio (120 Hz)</b>	<b>-25°C/ +20°C</b>	≤1.15				
	<b>-55°C/ +20°C</b>	≤1.25				
<b>Load Life</b>		2000 hours( 1500 Hours for WVDC≥35V) at 125°C with rated WVDC and ripple current applied				
		<b>Capacitance Change</b>	≤30% of initial measured value			
		<b>Dissipation Factor</b>	≤300% of maximum specified value			
		<b>ESR</b>	≤300% of maximum specified value			
		<b>Leakage Current</b>	≤100% of maximum specified value			
<b>Humidity test</b>		1000 hours at 60°C with rated voltage applied at 90-95% R.H.				
		<b>Capacitance Change</b>	≤30% of initial measured value			
		<b>Dissipation Factor</b>	≤300% of maximum specified value			
		<b>ESR</b>	≤300% of maximum specified value			
		<b>Leakage Current</b>	≤100% of maximum specified value			
<b>Surge Voltage test</b>		1000 cycles at 125°C with rated surge voltage applied for 30 seconds through a 1kΩ resistor and discharged for 5 minutes and 30 seconds				
		<b>Capacitance Change</b>	≤20% of initial measured value			
		<b>Dissipation Factor</b>	≤150% of maximum specified value			
		<b>ESR</b>	≤150% of maximum specified value			
		<b>Leakage Current</b>	≤100% of maximum specified value			
<b>Failure Rate</b>		<b>0.5% /1000 hours Maximum (60% confidence level at 125°C)</b>				
<b>Ripple Current Multipliers</b>		<b>Frequency (Hz)</b>				
		120	1k	10k	100k	
		.05	.3	.7	1.0	



D+0.5	8	10
S+0.5	3.5	5.0
d	0.6	0.6

L<sub>1</sub>=L+1.5mm MAX

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+125°C Highest capacitance & Voltage, Low ESR

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum ESR (mΩ) 100 kHz, +20°C	Leakage Current (µA)	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
16	470	477ALG016MFBJ	0.42328	11	1504	5100	8x12
16	820	827ALG016MFBF	0.24261	11	2624	5100	8x12
16	1200	128ALG016MGBJ	0.16579	11	3840	6100	10x12
16	1500	158ALG016MGBJ	0.13253	11	4800	6100	10x12
25	220	227ALG025MFBJ	0.9043	16	1350	4750	8x12
25	470	477ALG025MFBJ	0.42328	16	2350	4750	8x12
25	470	477ALG025MGBJ	0.42328	14	2350	5050	10x12
25	680	687ALG025MGBJ	0.2926	14	3400	5050	10x12
35	100	107ALG035MFBJ	1.9894	23	700	3400	8x12
35	150	157ALG035MFBJ	1.3263	23	1050	3400	8x12
35	220	227ALG035MFBJ	0.9043	23	1540	3400	8x12
35	220	227ALG035MGBJ	0.9043	21	1540	3900	10x12
35	330	337ALG035MGBJ	0.6029	21	2310	3900	10x12
50	47	476ALG050MFBJ	4.2328	27	470	2700	8x12
50	82	826ALG050MFBJ	2.4261	27	820	2700	8x12
50	100	107ALG050MFBJ	1.9894	27	1000	2700	8x12
50	120	127ALG050MGBJ	1.6579	25	1200	3100	10x12
50	220	227ALG050MGBJ	0.9043	25	2200	3100	10x12
63	47	476ALG063MFBJ	4.2328	27	592	2700	8x12
63	82	826ALG063MGBJ	2.4261	25	1033	2900	10x12
63	100	107ALG063MFBJ	1.9894	27	1260	2700	8x12
63	150	157ALG063MGBJ	1.3253	25	1890	2900	10x12