

ALCHIP™-MVA系列 Upgrade!

表面
安装

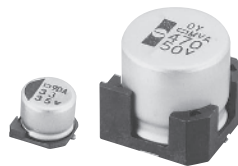
小型化

耐清洗

RoHS2
适应品

4~63Vdc

MVA → MVE
105℃化



- 额定电压4V~450V。
- 保证85℃ 2,000小时、标准品。
- 产品尺寸：φ4×5.2L~φ18×21.5L。
- 可对应小型、薄型设备的高密度表面安装。

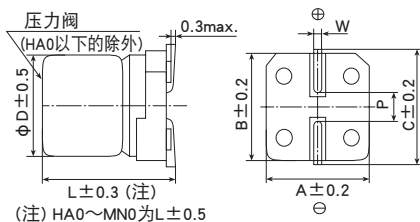
规格表

项目	性能													
工作温度范围	-40~+85℃													
额定电压范围	4~450V _{dc}													
静电容量容许差	±20%(M) (20℃、120Hz)													
漏电流	额定电压 (V _{dc})	4~100V						160~450V						
	D55~JA0	I ≤ 0.01CV 或者 3μA 中任意一个较大值 (2分值)												
	KE0~MN0	I ≤ 0.03CV 或者 4μA 中任意一个较大值 (1分值) I ≤ 0.04CV+100μA (1分值)												
I: 漏电流 (μA)、C: 静电容量 (μF)、V: 额定电压 (V _{dc}) (20℃)														
损失角正切值 (tan δ)	额定电压 (V _{dc})	4V	6.3V	10V	16V	25V	35V	50V	63V	100V	160~250V	400~450V		
	tan δ (Max.)	D55~JA0	0.42	0.35	0.30	0.26	0.16	0.14	0.12	0.12	0.12	—	—	
	KE0~MN0	—	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	0.20	0.25		
但是, 超过1,000 μF的每增加1,000 μF 则tan δ 设定增加0.02。 (20℃、120Hz)														
温度特性 (阻抗比 Max右表值)	额定电压 (V _{dc})	4V	6.3V	10V	16V	25V	35V	50V	63V	100V	160~250V	400~450V		
	D55~JA0	Z (-25℃) / Z (+20℃)	7	4	3	2	2	2	2	3	—	—		
		Z (-40℃) / Z (+20℃)	17	10	8	6	4	3	3	4	—	—		
	KE0~MN0	Z (-25℃) / Z (+20℃)	—	5	4	3	2	2	2	2	3	6		
Z (-40℃) / Z (+20℃)		—	12	10	8	5	4	3	3	6	10			
(120Hz)														
耐久性	在85℃环境中, 连续加载额定电压2,000小时后, 待温度恢复到20℃进行测量时, 应满足以下要求。													
	尺寸代码	D55~JA0	D55~JA0						KE0~MN0					
	额定电压 (V _{dc})	4、6.3V			10~100V			6.3~450V						
	静电容量变化率	≤初始值的±30%						≤初始值的±20%						
	损失角正切值	≤初始规格值的200%												
	漏电流	≤初始规格值												
高温无负荷特性	在85℃环境中, 无负荷放置1,000小时后待温度恢复到20℃, 进行试验前处理 (JIS C 5101-4 4.1项) 后进行测量时, 应满足以下要求。													
	尺寸代码	D55~JA0	D55~JA0						KE0~MN0					
	额定电压 (V _{dc})	4、6.3V			10~100V			6.3~450V						
	静电容量变化率	≤初始值的±30%						≤初始值的±20%						
	损失角正切值	≤初始规格值的200%												
	漏电流	≤初始规格值												
容许清洗条件	请参照Technical note 第6项「基板清洗」 (另外, 额定电压为100V _{dc} ~450V _{dc} 的产品不属于基板清洗类型。)													

尺寸图 (CE32形) [mm]

●端子代码: A

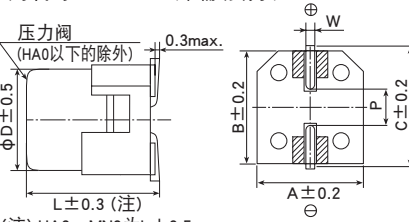
●尺寸代码: D55~MN0



(注) HA0~MN0为L±0.5

●端子代码: G (耐振构造)

●尺寸代码: F80~MN0 (带辅助端子)



(注) HA0~MN0为L±0.5

▨内: 辅助端子

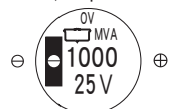
尺寸代码	D	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5~0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5~0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5~0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5~0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7~1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7~1.1	4.5
KE0	12.5	13.5	13.0	13.0	13.7	1.0~1.3	4.2
KG5	12.5	16.0	13.0	13.0	13.7	1.0~1.3	4.2
LH0	16	16.5	17.0	17.0	18.0	1.0~1.3	6.5
LN0	16	21.5	17.0	17.0	18.0	1.0~1.3	6.5
MH0	18	16.5	19.0	19.0	20.0	1.0~1.3	6.5
MN0	18	21.5	19.0	19.0	20.0	1.0~1.3	6.5

标示

标示例 (D55~JA0)
16V47μF



标示例 (KE0~MN0)
25V1,000μF



额定纹波电流频率修正系数

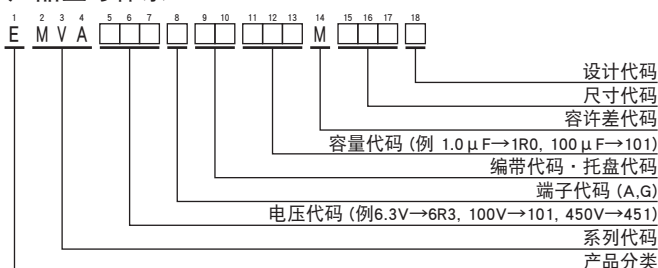
纹波频率与标准品一览表的规定值相异时, 请使用小于乘以下表系数所得之值

频率修正系数

尺寸代码	静电容量 (μF)	频率 (Hz)			
		120	1k	10k	100k
D55~JA0	1.0	1.00	1.50	1.75	1.80
	2.2~10	1.00	1.30	1.40	1.50
	22~1,500	1.00	1.05	1.08	1.08
KE0~MN0	4.7	1.00	1.75	2.30	2.50
	10~68	1.00	1.50	1.75	1.80
	100~1,000	1.00	1.30	1.40	1.50
	2,200~10,000	1.00	1.05	1.08	1.08

※铝电解电容器由于在纹波电流叠加时自我发热, 温度上升而老化, 每升温5℃寿命减少一半。
要想保持长寿命请在使用过程中降低纹波电流。

产品型号体系



产品型号代码的详细介绍请参考「产品型号表示方法 (贴片型)」。

◆标准品一览表

□ 内的产品 (100 ~ 450V_{dc}) 不能进行基板清洗。

WV (V _{dc})	Cap (μF)	尺寸代码	tan δ	额定纹波电流 (mA _{rms} /85℃, 120Hz)	产品型号	WV (V _{dc})	Cap (μF)	尺寸代码	tan δ	额定纹波电流 (mA _{rms} /85℃, 120Hz)	产品型号			
4	33	D55	0.42	25	EMVA4R0ARA330MD55G	35	33	F55	0.14	54	EMVA350ARA330MF55G			
	47	D55	0.42	30	EMVA4R0ARA470MD55G		100	F80	0.14	120	EMVA350□RA101MF80G			
	100	E55	0.42	50	EMVA4R0ARA101ME55G		150	HA0	0.14	210	EMVA350□RA151MHA0G			
	220	F55	0.42	80	EMVA4R0ARA221MF55G		220	HA0	0.14	260	EMVA350□RA221MHA0G			
	330	F80	0.42	135	EMVA4R0□RA331MF80G		330	JA0	0.14	360	EMVA350□RA331MJA0G			
	470	F80	0.42	150	EMVA4R0□RA471MF80G		470	KE0	0.22	600	EMVA350□RA471MKE0S			
6.3	1,000	HA0	0.42	320	EMVA4R0□RA102MHA0G	1,000	LH0	0.22	1,100	EMVA350□RA102MLH0S				
	33	D55	0.35	30	EMVA6R3ARA330MD55G	2,200	MN0	0.24	1,700	EMVA350□RA222MMN0S				
	47	D55	0.35	33	EMVA6R3ARA470MD55G	50	3.3	D55	0.12	15	EMVA500ARA3R3MD55G			
	100	E55	0.35	55	EMVA6R3ARA101ME55G		4.7	D55	0.12	18	EMVA500ARA4R7MD55G			
	220	F55	0.35	88	EMVA6R3ARA221MF55G		10	E55	0.12	30	EMVA500ARA100ME55G			
	330	F80	0.35	135	EMVA6R3□RA331MF80G		22	F55	0.12	47	EMVA500ARA220MF55G			
	470	HA0	0.35	280	EMVA6R3□RA471MHA0G		33	F80	0.12	70	EMVA500□RA330MF80G			
	680	HA0	0.35	290	EMVA6R3□RA681MHA0G		47	F80	0.12	85	EMVA500□RA470MF80G			
	820	HA0	0.35	320	EMVA6R3□RA821MHA0G		100	HA0	0.12	190	EMVA500□RA101MHA0G			
	1,000	JA0	0.35	430	EMVA6R3□RA102MJA0G		220	JA0	0.12	320	EMVA500□RA221MJA0G			
	1,500	JA0	0.35	480	EMVA6R3□RA152MJA0G		330	KE0	0.18	600	EMVA500□RA331MKE0S			
	2,200	KE0	0.40	890	EMVA6R3□RA222MKE0S		470	KG5	0.18	740	EMVA500□RA471MKG5S			
	3,300	KG5	0.42	1,000	EMVA6R3□RA332MKG5S		470	LH0	0.18	850	EMVA500□RA471MLH0S			
	3,300	LH0	0.42	1,200	EMVA6R3□RA332MLH0S		1,000	LNO	0.18	1,300	EMVA500□RA102MLN0S			
4,700	LH0	0.44	1,400	EMVA6R3□RA472MLH0S	1,000		MN0	0.18	1,400	EMVA500□RA102MMN0S				
6,800	LNO	0.48	1,750	EMVA6R3□RA682MLN0S	63		1.0	D55	0.12	8.0	EMVA630ARA1R0MD55G			
6,800	MH0	0.48	1,700	EMVA6R3□RA682MMH0S		2.2	D55	0.12	12	EMVA630ARA2R2MD55G				
10,000	MN0	0.56	2,000	EMVA6R3□RA103MMN0S		3.3	E55	0.12	17	EMVA630ARA3R3ME55G				
10	22	D55	0.30	26		EMVA100ARA220MD55G	4.7	E55	0.12	20	EMVA630ARA4R7ME55G			
	33	D55	0.30	30		EMVA100ARA330MD55G	10	F55	0.12	32	EMVA630ARA100MF55G			
	47	E55	0.30	44		EMVA100ARA470ME55G	22	F80	0.12	60	EMVA630□RA220MF80G			
	100	F55	0.30	70		EMVA100ARA101MF55G	33	HA0	0.12	110	EMVA630□RA330MHA0G			
	150	F55	0.30	79		EMVA100ARA151MF55G	47	HA0	0.12	130	EMVA630□RA470MHA0G			
	220	F80	0.30	130		EMVA100□RA221MF80G	56	JA0	0.12	160	EMVA630□RA560MJA0G			
	330	HA0	0.30	270		EMVA100□RA331MHA0G	68	JA0	0.12	170	EMVA630□RA680MJA0G			
	470	HA0	0.30	280		EMVA100□RA471MHA0G	100	KE0	0.14	380	EMVA630□RA101MKE0S			
	1,000	JA0	0.30	430		EMVA100□RA102MJA0G	220	KE0	0.14	580	EMVA630□RA221MKE0S			
	2,200	KE0	0.36	960		EMVA100□RA222MKE0S	330	KG5	0.14	720	EMVA630□RA331MKG5S			
	3,300	LH0	0.38	1,300		EMVA100□RA332MLH0S	330	LH0	0.14	820	EMVA630□RA331MLH0S			
	4,700	LNO	0.40	1,550	EMVA100□RA472MLN0S	470	LH0	0.14	950	EMVA630□RA471MLH0S				
	4,700	MH0	0.40	1,600	EMVA100□RA472MMH0S	470	MH0	0.14	1,000	EMVA630□RA471MMH0S				
	6,800	MN0	0.44	1,850	EMVA100□RA682MMN0S	100	22	HA0	0.12	90	EMVA101□RA220MHA0G			
16	22	D55	0.26	26	EMVA160ARA220MD55G		33	JA0	0.12	120	EMVA101□RA330MJA0G			
	33	E55	0.26	37	EMVA160ARA330ME55G		68	KE0	0.10	380	EMVA101□RA680MKE0S			
	47	E55	0.26	44	EMVA160ARA470ME55G		100	KE0	0.10	440	EMVA101□RA101MKE0S			
	100	F55	0.26	70	EMVA160ARA101MF55G		220	LNO	0.10	850	EMVA101□RA221MLN0S			
	150	F80	0.26	110	EMVA160□RA151MF80G		220	MH0	0.10	800	EMVA101□RA221MMH0S			
	220	F80	0.26	130	EMVA160□RA221MF80G		330	MN0	0.10	1,000	EMVA101□RA331MMN0S			
	330	HA0	0.26	270	EMVA160□RA331MHA0G		160	47	KG5	0.20	370	EMVA161□RA470MKG5S		
	470	HA0	0.26	280	EMVA160□RA471MHA0G			68	LH0	0.20	500	EMVA161□RA680MLH0S		
	680	JA0	0.26	380	EMVA160□RA681MJA0G			100	LNO	0.20	590	EMVA161□RA101MLN0S		
	1,000	KE0	0.30	710	EMVA160□RA102MKE0S			100	MH0	0.20	590	EMVA161□RA101MMH0S		
	2,200	LH0	0.32	1,150	EMVA160□RA222MLH0S			22	KE0	0.20	240	EMVA201□RA220MKE0S		
	3,300	LNO	0.34	1,450	EMVA160□RA332MLN0S			33	KG5	0.20	310	EMVA201□RA330MKG5S		
	3,300	MH0	0.34	1,450	EMVA160□RA332MMH0S			47	LH0	0.20	420	EMVA201□RA470MLH0S		
	4,700	MN0	0.36	1,750	EMVA160□RA472MMN0S	68		LNO	0.20	510	EMVA201□RA680MLN0S			
25	10	D55	0.16	24	EMVA250ARA100MD55G	68		MH0	0.20	510	EMVA201□RA680MMH0S			
	22	E55	0.16	41	EMVA250ARA220ME55G	100		MN0	0.20	590	EMVA201□RA101MMN0S			
	33	E55	0.16	47	EMVA250ARA330ME55G	10		KE0	0.20	150	EMVA251□RA100MKE0S			
	47	F55	0.16	60	EMVA250ARA470MF55G	22		KG5	0.20	240	EMVA251□RA220MKG5S			
	56	F55	0.16	66	EMVA250ARA560MF55G	33		LH0	0.20	340	EMVA251□RA330MLH0S			
	100	F80	0.16	120	EMVA250□RA101MF80G	47		LNO	0.20	420	EMVA251□RA470MLN0S			
	150	HA0	0.16	210	EMVA250□RA151MHA0G	47	MH0	0.20	420	EMVA251□RA470MMH0S				
	220	HA0	0.16	260	EMVA250□RA221MHA0G	68	MN0	0.20	490	EMVA251□RA680MMN0S				
	330	HA0	0.16	300	EMVA250□RA331MHA0G	200	4.7	KE0	0.25	120	EMVA401□RA47MKE0S			
	470	JA0	0.16	400	EMVA250□RA471MJA0G		10	LH0	0.25	140	EMVA401□RA100MLH0S			
	1,000	KE0	0.26	820	EMVA250□RA102MKE0S		22	LNO	0.25	280	EMVA401□RA220MLN0S			
	2,200	LNO	0.28	1,450	EMVA250□RA222MLN0S		22	MH0	0.25	280	EMVA401□RA220MMH0S			
	2,200	MH0	0.28	1,400	EMVA250□RA222MMH0S		33	MN0	0.25	350	EMVA401□RA330MMN0S			
	3,300	MN0	0.30	1,800	EMVA250□RA332MMN0S		400	4.7	KE0	0.25	120	EMVA451□RA47MKE0S		
35	4.7	D55	0.14	18	EMVA350ARA4R7MD55G			10	LH0	0.25	140	EMVA451□RA100MLH0S		
	10	D55	0.14	24	EMVA350ARA100MD55G			22	LNO	0.25	280	EMVA451□RA220MLN0S		
	22	E55	0.14	41	EMVA350ARA220ME55G			22	MH0	0.25	280	EMVA451□RA220MMH0S		
	450	33	E55	0.14	47			EMVA350ARA330ME55G	33	MN0	0.25	350	EMVA451□RA330MMN0S	
		47	F55	0.16	60			EMVA350ARA470MF55G	450	4.7	KE0	0.25	120	EMVA451□RA47MKE0S
		56	F55	0.16	66			EMVA350ARA560MF55G		10	LH0	0.25	140	EMVA451□RA100MLH0S
		100	F80	0.16	120			EMVA350□RA101MF80G		22	LNO	0.25	280	EMVA451□RA220MLN0S
		150	HA0	0.16	210			EMVA350□RA151MHA0G		22	MH0	0.25	280	EMVA451□RA220MMH0S
		220	HA0	0.16	260	EMVA350□RA221MHA0G		33		MN0	0.25	350	EMVA451□RA330MMN0S	
		330	HA0	0.16	300	EMVA350□RA331MHA0G		450		4.7	KE0	0.25	120	EMVA451□RA47MKE0S
		470	JA0	0.16	400	EMVA350□RA471MJA0G				10	LH0	0.25	140	EMVA451□RA100MLH0S
		1,000	KE0	0.26	820	EMVA350□RA102MKE0S				22	LNO	0.25	280	EMVA451□RA220MLN0S
		2,200	LNO	0.28	1,450	EMVA350□RA222MLN0S				22	MH0	0.25	280	EMVA451□RA220MMH0S
		2,200	MH0	0.28	1,400	EMVA350□RA222MMH0S	33			MN0	0.25	350	EMVA451□RA330MMN0S	
3,300		MN0	0.30	1,800	EMVA350□RA332MMN0S	450	4.7			KE0	0.25	120	EMVA451□RA47MKE0S	
35		4.7	D55	0.14	18		EMVA350ARA4R7MD55G			10	LH0	0.25	140	EMVA451□RA100MLH0S
		10	D55	0.14	24		EMVA350ARA100MD55G			22	LNO	0.25	280	EMVA451□RA220MLN0S
	22	E55	0.14	41	EMVA350ARA220ME55G		22			MH0	0.25	280	EMVA451□RA220MMH0S	
	450	33	E55	0.14	47		EMVA350ARA330ME55G		33	MN0	0.25	350	EMVA451□RA330MMN0S	
		47	F55	0.16	60		EMVA350ARA470MF55G		450	4.7	KE0	0.25	120	EMVA451□RA47MKE0S
		56	F55	0.16	66		EMVA350ARA560MF55G			10	LH0	0.25	140	EMVA451□RA100MLH0S
		100	F80	0.16	120		EMVA350□RA101MF80G			22	LNO	0.25	280	EMVA451□RA220MLN0S
		150	HA0	0.16	210		EMVA350□RA151MHA0G			22	MH0	0.25	280	EMVA451□RA220MMH0S
		220	HA0	0.16	260		EMVA350□RA221MHA0G	33		MN0	0.25	350	EMVA451□RA330MMN0S	
		330	HA0	0.16	300		EMVA350□RA331MHA0G	450		4.7	KE0	0.25	120	EMVA451□RA47MKE0S
		470	JA0	0.16	400		EMVA350□RA471MJA0G			10	LH0	0.25	140	EMVA451□RA100MLH0S
		1,000	KE0	0.26	820		EMVA350□RA102MKE0S			22	LNO	0.25	280	EMVA451□RA220MLN0S
		2,200	LNO	0.28	1,450		EMVA350□RA222MLN0S			22	MH0	0.25	280	EMVA451□RA220MMH0S
		2,200	MH0	0.28	1,400	EMVA350□RA222MMH0S	33			MN0	0.25	350	EMVA451□RA330MMN0S	
3,300		MN0	0.30	1,800	EMVA350□RA332MMN0S	450	4.7			KE0	0.25	120	EMVA451□RA47MKE0S	
35		4.7	D55	0.14	18		EMVA350ARA4R7MD55G			10	LH0	0.25	140	EMVA451□RA100MLH0S
		10	D55	0.14	24		EMVA350ARA100MD55G			22	LNO	0.25	280</	