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SAMWHA Capacitor Group with a history dating from 1956/South Korea, produces a wide range of high quality passive components, like power capacitors, MLCCs, EMI filters, chip inductors, varistors and ultra high voltage MLCCs.

SAMWHA Capacitor Group byla založena v roce 1956 v Jižní Koreji. Vyrábí širokou škálu vysoce kvalitních pasivních součástí, výkonové kondenzátory, čipové kondenzátory (MLCCs), EMI filtry, čipové indukční, varistory a ultra vysokonapětové MLCCs.

SAMWHA Capacitor Group wurde 1956 in Südkorea gegründet. Das Unternehmen produziert eine breite Palette an qualitativ hochwertigen passiven Bauelementen, Leistungskondensatoren, Chipkondensatoren (MLCCs), EMI-Filtern, Chipinduktoren, Varistoren und Ultra-Hochspannungs-MLCCs.

A SAMWHA Capacitor Group-ot 1956-ban alapították Dél-Koreában. Jó minőségű passzív alkatrészek, nagy teljesítményű kondenzátorok, chip kondenzátorok (MLCCs), EMI szűrők, chipes induktorok, varisztorok és ultra magasfeszültségű MLCC-k széles skáláját gyártja.

SAMWHA Capacitor Group została założona w roku 1956 w Korei Południowej. Produkuje szeroką gamę wysokiej jakości elementów pasywnych, kondensatory mocy, kondensatory chipowe (MLCCs), filtry EMI, cewki chipowe, warystory i MLCCs ultra wysokonapięciowe.

SAMWHA Capacitor Group, cu o istorie datand din 1956/Coreea de Sud, produce o gamă largă de componente pasive de înaltă calitate, cum ar fi condensatoarele de putere, MLCCs, filtre EMI, inductoare chip, varistoare și MLCCs de tensiune ultra înaltă.

SAMWHA Capacitor Group bola založená v roku 1956 v Južnej Kórei. Vyrába širokú škálu vysoko kvalitných pasívnych súčastok, výkonové kondenzátory, čipové kondenzátory (MLCCs), EMI filtre, čipové indukční, varistory a ultra vysokonapätové MLCCs.

Samwha is the innovative company, initially pioneering electronic industry in South Korea and gradually expanding all over the world. Samwha components gained a very good reputation in terms of quality, reliability as well as excellent price/performance ratio. In our offer of Samwha components, you can find mainly various types of aluminium electrolytic capacitors in THT and SMT versions.

Why SAMWHA?

- over 55 years of experience
- wide portfolio of high quality components
- excellent price / performance ratio

Did You Know?

Samwha Capacitor Group was more times awarded by the South Korea President and government for the contribution to national industrial development and export.

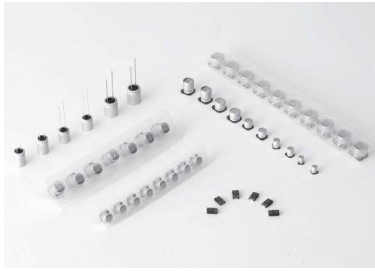
Surface Mount Aluminum Electrolytic Capacitors



SMD(V-chip type) Electrolytic Capacitors are designed for surface mounting on high density PCB(Printed Circuit Board). SMD capacitors being essential elements in miniaturization of electronic products, the getting-smaller trend is to deepen.

Series	Features	Temp. Range (°C)	Vol. Range (VDC)	Cap. Range (μF)	Load Life (hours)
SC	Standard	-40~85	4~450	0.1~2200	2000
RC	Standard, wide temp.	-55~105	6.3~50	0.1~1000	1000
NC	5.5mmL chip, non-polarized	-40~85	6.3~50	0.1~47	2000
UC	Chip type, high temp. for 125°C use	-40~125	10~50	10~1000	2000
CB	Chip type, long life	-55~105	4~50	0.1~100	5000
JC	Chip type, wide temp. high CV	-55(-40)~105	4~450	3.3~4700	2000
JH	Chip type, high ripple	-55~105	6.3~100	10~2200	2000
ZC	5.5mmL chip type, Low impedance	-55~105	6.3~35	1.0~100	1000
CK	Chip type, Low impedance, high CV	-40~105	6.3~100	10~1500	2000
CD	Chip type, extremely low impedance	-40~105	6.3~50	10~1500	2000
CM	Chip type, extremely low impedance, Long life	-55~105	6.3~50	10~1000	3000~5000
CN	5.5mmL chip type, wide temp. non-polarized	-55~105	6.3~50	0.1~47	1000
CA	Chip type, high CV, long life	-55~105	6.3~50	10~1000	5000
JL	Chip type, high reliability	-40~105	10~50	33~470	10000
CF	Chip type, high temp. for 130°C use	-40~130	10~50	22~1000	5000
CT	Chip type, high temp. for 130°C use, low impedance	-40~130	10~50	33~470	2000
CW	Chip type, high reliability	-40~150	10~50	33~1000	1000

Polymer Aluminum Electrolytic Capacitors



A Solid Capacitor is an electrolytic capacitor that uses solid electrolyte(TCNQ, Polythiophene, Polypyrrole, Polyaniline) with high conductivity. Solid electrolyte application results in a high conductivity and low ESR at high frequency with very stable capacitance and ESR against temperature. High frequency SMPS, computer main board, graphic card, audio are major application examples.

Series	Features	Temp. Range (°C)	Vol. Range (VDC)	Cap. Range (µF)	Load Life (hours)	
SMD	FA	Chip type, with conductive polymer(Hi-CAP)	-55~105	2.5~25	3.3~1500	2000
	FH	Lead type, with conductive polymer(Hi-CAP), Large Capacitance, Low ESR	-55~105	2.5~16	39~3300	2000
	FT	Chip type, with conductive polymer(Hi-CAP), High temp.	-55~125	10~35	8.2~82	2000
	FZ	Chip type, with conductive polymer(Hi-CAP), Long life	-55~105	4~25	10~680	5000
	FN	Chip type, with conductive polymer(Hi-CAP), 4.5mmL	-55~105	2.5~25	15~150	1000
Lead Type	FJ	Lead type, with conductive polymer(Hi-CAP), Large Capacitance, Low ESR	-55~105	2.5~16	100~2700	2000
	FB	Lead type, with conductive polymer(Hi-CAP)	-55~105	2.5~25	6.8~3300	2000
	FV	Lead type, with conductive polymer(Hi-CAP), Long life	-55~105	2.5~16	100~820	5000
SMD	FC	Chip type, with conductive polymer(Hi-CAP)	-40~105	2~16	2.2~470	1000

Large Aluminum Electrolytic Capacitors



Large aluminum capacitors are classified in three types, snap-in type, lug type and screw type by terminal shape. Snap-in type is mainly used for power supply stage like PCB mounting. Lug type and screw type is used for industrial machine. Large capacitors are suitable for smoothness on power supply and inverter circuit.

Series	Features	Temp. Range (°C)	Vol. Range (VDC)	Cap. Range (µF)	Load Life (hours)	
Snap-in Terminal	HC	Standard	-40(-25)~85	6.3~500	56~100000	2000
	HJ	Miniaturized	-40(-25)~85	160~450	56~3300	3000
	HE	Wide temp. range, standard	-40(-25)~105	6.3~500	47~68000	2000~3000
	HK	Wide temp. range, miniaturized	-40(-25)~105	160~450	47~2700	3000
	HV	Wide temp. range, miniaturized	-40(-25)~105	250~450	47~1500	3000
	HL	Wide temp. range miniaturized, long life	-40(-25)~105	160~450	47~1500	5000
	HY	Wide temp. range long life	-40(-25)~105	160~450	47~1800	7000
	HB	High temp. range, for 125 use	-40~125	10~250	100~15000	1000
	QA	Permissible abnormal voltage, snap-in terminal	-25~105	200, 400	47~1500	2000
Lug.	LM	For general use	-40(-25)~85	16~450	68~150000	2000
Screw Terminal	GT	Standard	-40(-25)~85	16~500	180~680000	2000
	GK	High ripple current	-25~85	350~450	180~10000	2000
	GM	High ripple current, miniaturized	-25~85	350~450	820~10000	2000
	CU	Wide temp. range, standard	-40(-25)~105	16~450	220~470000	2000
	GF	For inverter circuits, long life	-25~85	350~600	1000~12000	2000~5000
	GH	For inverter circuits, long life, high ripple	-25~85	400~500	1800~12000	2000~5000
	GN	For inverter circuits, long life, high ripple, miniaturized	-25~85	400~500	1800~12000	2000~5000
	GL	High ripple, long life	-25~85	350~450	1500~12000	20000
	EV	For inverter circuits, long life	-25~105	400~550	2200~6800	2000~5000
	EY	For inverter circuits, long life	-25~105	350~450	1500~12000	7000
Special Type	AM	For audio equipment	-40~85	16~100	470~33000	2000
	DF	For photo flash	-20~55	300, 360	200~1500	-
	LW,SW	For Welding Machine	-25~85	315, 475	225~2200	-
	AR,AH	For inverter Air-Conditioning system	-25~85(105)	-	-	-

Miniature Aluminum Electrolytic Capacitors



Miniature aluminum electrolytic capacitors are small sized aluminum capacitors in lead wire type. The capacitance is lower than large aluminum capacitors, but with the better impedance characteristic. Various applications are possible with miniature capacitors in lead shape and auto insertion through taping method. The market trends reflect smaller size with lower internal resistance and lower impedance. Miniature capacitors are specifically fit for smoothing power supply and coupling and bypassing on circuits.

Series	Features	Temp. Range (°C)	Vol. Range (VDC)	Cap. Range (µF)	Load Life (hours)	
General Type (85°C)	SD	Standard	-40(-25)~85	6.3~500	1.0~22000	2000
	SS	Standard, height 7mm	-40~85	4~63	0.1~220	2000
	SE	Standard, height 5mm	-40~85	4~63	0.1~330	2000
General Type (105°C)	RD	Standard, wide temp.	-55(-40,-25)~105	6.3~500	2.2~22000	1000~2000
	RM	Wide temp. capacitance wide range, miniature	-55(-40,-25)~105	6.3~450	2.2~22000	1000~2000
	RK	Wide temp. range, height 7mm	-55~105	4~63	0.1~68	1000
Low Impedance	RE	Wide temp. range, height 5mm	-55~105	4~50	0.1~220	1000
	ZS	Height 7mmL, low impedance, high ripple	-40~105	6.3~50	2.2~330	2000
	ZL	Height 7mmL, low impedance, high ripple	-40~105	6.3~50	2.2~330	3000
	ZE	Height 5mmL, low impedance, high ripple	-55~105	6.3~35	1.0~100	2000
	RZ	Extremely low impedance, high reliability	-55~105	6.3~63	1.0~15000	2000~5000
	WL	Extremely low imp., miniaturized, wide voltage	-40~105	6.3~500	0.22~15000	2000~5000
	RP	Extremely low impedance, Long life	-55~105	6.3~50	1.0~15000	4000~10000
	WF	Extremely low imp., miniaturized, long life	-40~105	6.3~100	0.47~15000	5000~10000
	LK	Ultra low impedance	-55~105	6.3~100	1.0~6800	2000~5000
	MK	Ultra low impedance, miniaturized, high ripple	-40~105	6.3~100	0.22~15000	2000~5000
	MZ	Ultra low impedance, miniaturized, high ripple	-40~105	6.3~100	0.47~15000	2000~5000
	MN	Ultra low impedance, high ripple	-40~105	6.3~25	220~3300	5000
	MD	Ultra low impedance, high ripple	-40~105	6.3~16	470~3300	2000
	LZ	Ultra low impedance, long life	-40~105	6.3~50	10~8200	6000~10000
	ML	Ultra low impedance, long life	-40~105	6.3~100	10~15000	6000~10000
Ballast, Charger, Adapter	BA	For PSU applications, smaller case size	-40(-25)~105	160~450	1.0~220	2000
	RH	For PSU applications, high ripple current	-40(-25)~105	160~500	1.0~220	5000
	RU	For PSU applications, high ripple current	-40(-25)~105	160~500	3.3~150	5000
	BH	For PSU applications, high ripple current	-25~105	200~400	2.2~100	5000
	BL	For PSU applications, Long life	-25~105	160~450	4.7~150	10000
	BJ	For PSU applications, extremely long life	-40(-25)~105	160~500	4.7~220	12000
	BK	For ballast applications, high temp. for 125°C use	-25~125	160~450	2.2~47	5000
	BM	For ballast applications, high temp. for 150°C use	-25~150	160~400	2.2~47	2000
CS,CH	For charger, adapter	-25~85(105)	400, 450	2.2~68	2000	
High Reliability	LU	For slim PSU	-40(-25)~105	250, 350, 450, 500	16~150	2000
	LB	For slim PSU, long life	-40(-25)~105	250, 350, 450, 500	16~180	5000~10000
	RB	High temp. range, for 125°C use, miniaturized	-55(-40)~125	6.3~250	0.47~15000	2000
	WT	High temp. range, for 125°C use, Long life, low impedance	-40~125	6.3~35	22~3300	1000~5000
	VA	High temp. range, for 130°C use, low impedance	-40~130	10~35	220~4700	2000~4000
	VB	High temp. range, for 155°C	-40~155	10~100	1.0~4700	1000
	UT	For flame retardancy	-25~105	400,450	2.2~150	2000
Non-Polarized	RN	Wide temp. range	-40~105	6.3~100	0.1~10000	1000
	NP	Standard	-40~85	6.3~250	0.47~10000	2000
	NS	Height 7mm	-40~85	6.3~63	0.1~47	2000
	NE	Height 5mm	-40~85	6.3~50	0.1~47	1000
	BP	For crossover networks	-40~85	25, 50, 100, 200	1.0~100	2000
	BR	For crossover networks, wide temp.	-40~105	200	3.3~100	2000
	NF	For horizontal deflection current correction	-40~85	25, 50	1.0~10	2000
	NH	For horizontal deflection current correction	-40~105	25, 50	1.0~10	2000
Low Leakage	RL	Low leakage current, wide temp. range	-55~105	10~50	0.1~330	1000
	LL	Low leakage current, standard	-40~85	10~100	1.0~4700	2000
	LS	Low leakage current, height 7mm	-40~85	6.3~63	0.1~100	2000
	LE	Low leakage current, height 5mm	-40~85	4~50	0.1~100	1000

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