

To: Customer	MT system	Issue Date	2019/9/9
		Spec NO.	MES005960

APPROVAL SHEET



Commodity	ALUMINUM ELECTROLYTIC CAPACITORS		
Our part no.	SC series		
Catalog type	SC	400V330uF	25*45/30*35/35/30
Customerpart no.			
Ideally suited			
Notes			

DESIGNED	CHECKED	APPROVED
呂姿儀	陳明宗	高良民

Customer

APPROVAL NO: _____

(Confirm) _____ Y _____ M _____ D confirm

DESIGNED	CHECKED	APPROVED



Version Change History

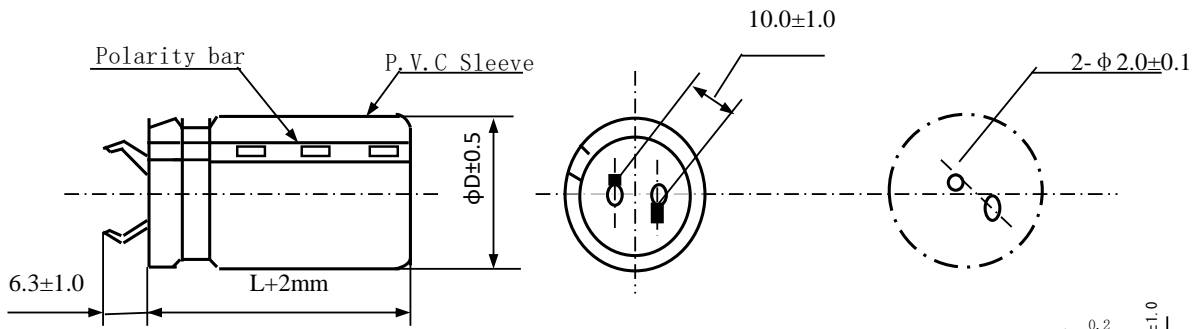
Rev.	Description of Change		Changed Date	Handled By
	Before	After		
A0	Initial formulation	/	2019/9/9	吴志发



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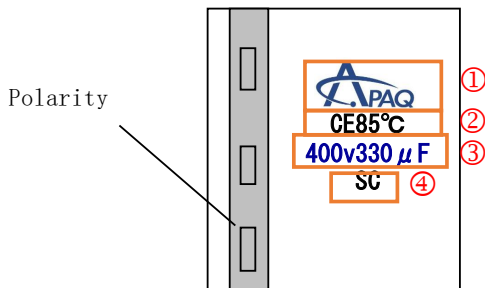
APAQ TECHNOLOGY CO., LTD

ALUMINIUM ELECTROLYTIC CAPACITORS SPECIFICATIONS



Snap-in Terminal Type

MARKING:



The following items shall be marked on each capacitor, as showed above

- (1) :Brand
- (2) :Working temperature
- (3) :Rated voltage & capacitance
- (4) :Series

MULTIPLIER FOR RIPPLE CURRENT

Frequency (HZ)		60 (50)	120	500	1K	10K ≅
Coefficient	10~100WV	0.90	1.00	1.05	1.10	1.15
	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40

P/N: A-Z331SC2G-25045MV

Temperature range: $-25^{\sim} + 85^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

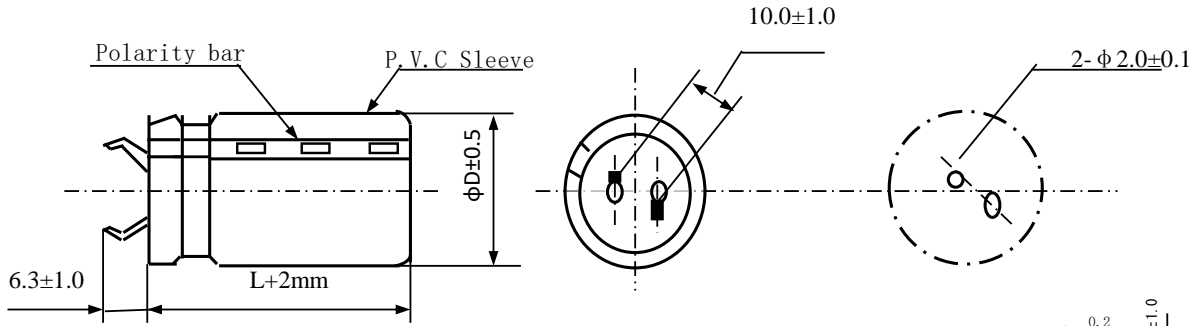
WORKING VOLTAGE (V. DC)	SURGE VOLTAGE (V. DC)	RATED CAP. (μF)	CAP. TOLERANCE (%)	TAN δ (MAX)	LEAKAGE CURRENT (uA MAX.)	RIPPLE CURRENT (A r.m.s MAX.)	STANDARD SIZE (φD×L)	Z-25°C/ Z20°C (120Hz)
400	450	330	-20~+20%	0.15	1089.95	1.58	25*45	8MAX
					after 5min	120Hz 85°C		
Load Life		After 3000 hours application of rated voltage at 85°C						
		Capacitance Change			Within ±20% of the initial value			
		Dissipation Factor			Not more than 200% of the specified value			
		Leakage Current			Not more than the specified value			
Shelf Life		After storage for 1000 hours at +85°C with no voltage applied , the capacitor shall meet the specified limits for "Load Life"						

DESIGNED	CHECKED
吴志发	何浩



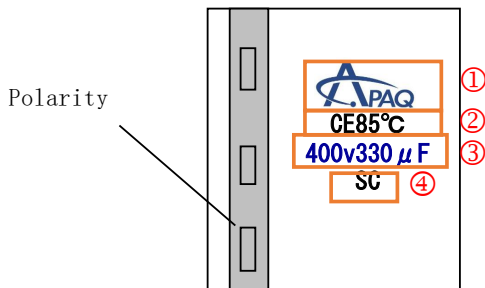
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Coefficient	10~100WV	0.90	1.00	1.05	1.10	1.15
	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40

P/N: A-Z331SC2G-30035MV

Temperature range: -25~ + 85 °C

ELECTRICAL CHARACTERISTICS

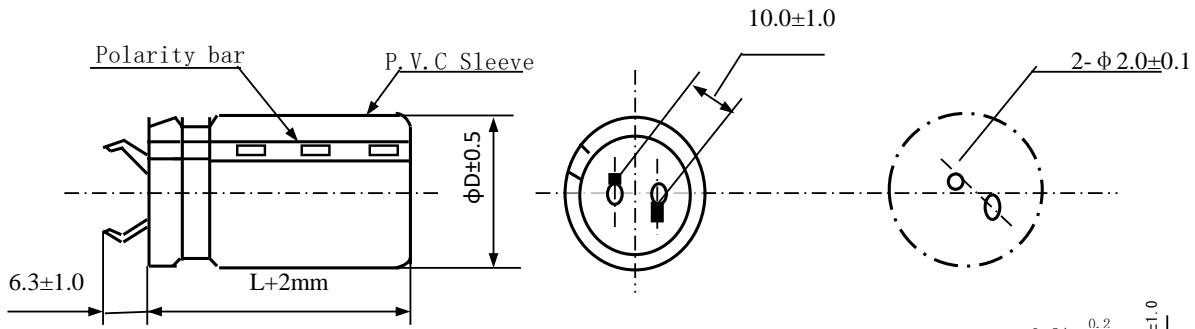
WORKING VOLTAGE (V. DC)	SURGE VOLTAGE (V. DC)	RATED CAP. (μF)	CAP. TOLERANCE (%)	TAN δ (MAX)	LEAKAGE CURRENT (μA MAX.)	RIPPLE CURRENT (A r.m.s MAX.)	STANDARD SIZE (φD×L)	Z-25°C / Z20°C (120Hz)
400	450	330	-20~+20%	0.15	1089.95	2.05	30*35	8MAX
					after 5min	120Hz 85°C		
Load Life		After 3000 hours application of rated voltage at 85°C						
		Capacitance Change			Within ±20% of the initial value			
		Dissipation Factor			Not more than 200% of the specified value			
		Leakage Current			Not more than the specified value			
Shelf Life		After storage for 1000 hours at +85°C with no voltage applied , the capacitor shall meet the specified limits for "Load Life"						

DESIGNED	CHECKED
吴志发	何浩



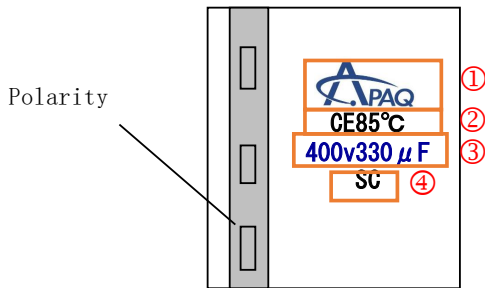
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ALUMINIUM ELECTROLYTIC CAPACITORS SPECIFICATIONS



Snap-in Terminal Type

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The following items shall be marked on each capacitor, as showed above

- (1) :Brand
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MULTIPLIER FOR RIPPLE CURRENT

Frequency (HZ)		60 (50)	120	500	1K	10K ≅
Coefficient	10~100WV	0.90	1.00	1.05	1.10	1.15
	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40

P/N: A-Z331SC2G-35030MV

Temperature range: -25~ + 85 °C

ELECTRICAL CHARACTERISTICS

WORKING VOLTAGE (V. DC)	SURGE VOLTAGE (V. DC)	RATED CAP. (μ F)	CAP. TOLERANCE (%)	TAN δ (MAX)	LEAKAGE CURRENT (μA MAX.)	RIPPLE CURRENT (A r.m.s MAX.)	STANDARD SIZE (φ D×L)	Z-25°C/ Z20°C (120Hz)
400	450	330	-20~+20%	0.15	1089.95	2.05	35*30	8MAX
					after 5min	120Hz 85°C		
Load Life		After 3000 hours application of rated voltage at 85°C						
		Capacitance Change			Within ±20% of the initial value			
		Dissipation Factor			Not more than 200% of the specified value			
		Leakage Current			Not more than the specified value			
Shelf Life		After storage for 1000 hours at +85°C with no voltage applied , the capacitor shall meet the specified limits for "Load Life"						

DESIGNED	CHECKED
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CONTENTS OF QUNLITY

1. TEST STANDARD:

JIS C 5141-1991 (JIS C 5141-1991 Electrolytic capacitors with fixed non-solid electrolytes for use in electronic machines)

JIS C 5102 (JIS C 5102 Test method for fixed capacitor for electronic machine)

GB 5993-91 (GB 5993-91 Fixed capacitors for electronic equipment--Part 4: Sectional specification: solid and non-solid electrolyte aluminum capacitors)

2. CHARACTERISTICS:

No.	ITEMS	CONDITIONS	SPECIFICATIONS	NOTE
2.1	TEMPERATURE CHARACTERISTIC	THE RATIO OF IMPEDANCE MEASURED AT $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ TO INPEDANCE MEASURED AT $-25^{\circ}\text{C} \pm \begin{matrix} 0 \\ 3 \end{matrix}^{\circ}\text{C}$	315~400VDC : Z-25°C/Z20°C=8MAX	
2.2	RESISTANCE OF DAMP HEAT (STEADY STATE)	TEST TEMPERATURE: $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ RELATIVE HUMIDITY: 90% ~ 95% TEST TIME: 120 ± 6 hrs	VALIATION OF CAPACITANCE: WITHIN $\pm 10\%$ OF THE VALUE BEFORE TEST * 损耗角正切值 $\text{TAN } \delta$: \leq 规格值 NOT MORE THAN THE SPECIFIED VALUE LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE APPEARANCE: NO REMARKABLE ABNORMARITY	
2.3	STORAGE AT LOW TEMPERATURE	TEST TEMPERATURE: $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ TEST TIME: $500 \pm \begin{matrix} 24 \\ 0 \end{matrix}$ h THE CAPACITORS SHALL THEN BE REMOVED FROM THE CHAMBER AND STABILIZED AT ROOM TEMPERATURE FOR 2 hrs. AFTER.	VALIATION OF CAPACITANCE: WITHIN $\pm 10\%$ OF THE VALUE BEFOR TEST DISSIPATION FACTOR: NOT MORE THAN THE SPECIFIED VALUE LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE APPEARANCE: NO REMARKABLE ABNORMARITY	



CONTENTS OF QUNLITY

No.	ITEMS	CONDITIONS	SPECIFICATIONS	NOTE
2.4	LIFE TEST	<p>TEST TEMPERATURE: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$</p> <p>TEST TIME: 3000 Hours</p> <p>APPLIED VOLTAGE: IN THE RANGE OF RATED DC VOLTAGE EVEN AFTER OVER-LAPPING THE SPECIFIED RIPPLE CURRENT</p> <p>MAXIMUM PERMISSIBLE RIPPLE CURRENT</p>	<p>VALIATION OF CAPACITANCE: WITHIN $\pm 20\%$ OF THE VALUE BEFOR TEST</p> <p>DISSIPATION FACTOR: NOT MORE THAN 200% OF THE SPECIFIED VALUE</p> <p>LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE</p> <p>APPEARANCE: NO REMARKABLE ABNORMARITY</p>	
2.5	SELFE LIFE TEST	<p>TEST TEMPERATURE: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$</p> <p>TEST TIME: $1000 \pm \begin{matrix} 48 \\ 0 \end{matrix}$ Hours</p> <p>CONDITIONINC: FOLLOWING THIS PERIOD THE CAPACITORS SHALL BE REMOVED FROM THE TEST CHAMBAR AND BE ALLOWED TO STABILIZE AT ROOM TEMPERATURE .NEXT THEY SHALL BE CONNECTED TO A SERIES LIMITING RESISTOR(1KΩ) WITH DC. RATED VOLTAGE APPLIED FOR 30min. AFTER WHICH THE CAPACITORS SHALL BE DISCHARGED.</p>	<p>VALIATION OF CAPACITANCE: WITHIN $\pm 20\%$ OF THE VALUE BEFOR TEST</p> <p>DISSIPATION FACTOR: NOT MORE THAN 200% OF THE SPECIFIED VALUE</p> <p>LEAKAGE CURRENT: NOT MORE THAN THE SPECIFIED VALUE</p> <p>APPEARANCE: NO REMARKABLE ABNORMARITY</p>	
2.6	OTHER	Follow JIS C 5141 OR GB 5993-91		

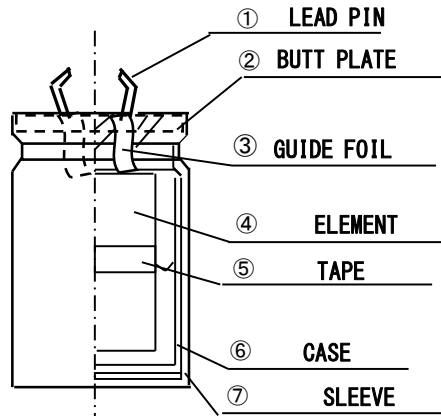


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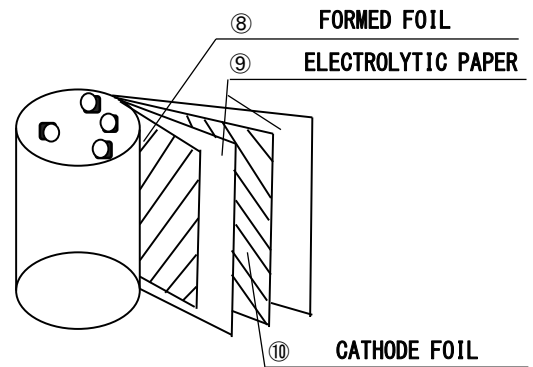
CONTENTS OF QUNLITY

(THE INSIDE OF THE CAPACITOR'S STRUCTURE FIG AND MATERIAL LIST)

【THE CAPACITOR'S STRUCTURE FIG】：



【THE ELEMENT FIG】：



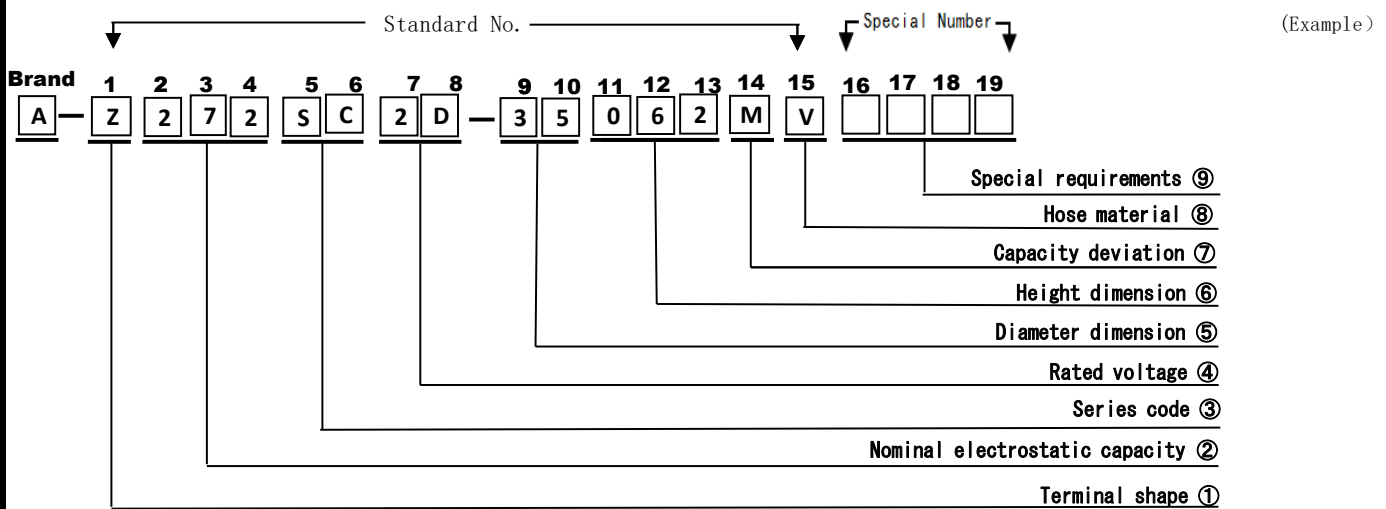
MATERIAL AND VENDOR LIST

NO.	NAME	MATERIAL	NOTE
1	LEAD PIN	TINNED COPPER	TINNED COPPER
2	BUTT PLATE	PHENOLIC RESIN	Seal
3	GUIDE FOIL	ALUMINUM	PURE \geq 99.99%
4	Element	Element	foil & electrytic paper
5	TAPE	POLYPROPYLENE	Fixed Element
6	CASE	ALUMINUM	PURE \geq 99.0%
7	SLEEVE	PVC SLEEVE	SLEEVE
8	FORMED FOIL	ALUMINUM	PURE \geq 99.99%
9	ELECTROLYTIC PAPER	Synthetic fiber	Synthetic fiber
10	CATHODE FOIL	ALUMINUM	PURE \geq 99.7% upper
11	Electrolyte	Mixture	Mixture



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PART NUMBERING SYSTEM



① Terminal shape

Terminal shape	Mark
Lead type	A
Pin type	Z
Four-pin type	T
Sheet type	P
Bolt type	S
v-chip	V
Axial extraction	B

② Static capacity

CAP (uF)	Mark		
	2	3	4
0.47	R	4	7
1	0	1	0
2.2	2	R	2
3.3	3	R	3
4.7	4	R	7
6.8	6	R	8
5.6	5	R	6
10	1	0	0
12	1	2	0
22	2	2	0
33	3	3	0
47	4	7	0
68	6	8	0
100	1	0	1
220	2	2	1
330	3	3	1
560	5	6	1
680	6	8	1
1000	1	0	2
2700	2	7	2
3300	3	3	2
4700	4	7	2
6800	6	8	2
10000	1	0	3
22000	2	2	3
33000	3	3	3
47000	4	7	3
68000	6	8	3

④ Rated voltage

WV (V)	Mark	
	7	8
4	0	G
6.3	0	J
10	1	A
16	1	C
25	1	E
35	1	V
50	1	H
63	1	J
80	1	K
100	2	A
120	1	2
110	2	Q
125	2	B
160	2	C
180	2	Z
200	2	D
220	2	P
250	2	E
315	2	F
350	2	V
400	2	G
420	W	6
450	2	W
500	2	H

⑤ Diameter dimension

Diameter (mm)	Mark	
	9	10
φ3	0	3
φ4	0	4
φ5	0	5
φ6.3	0	6
φ8	0	8
φ10	1	0
φ12.5	1	2
φ13	1	3
φ16	1	6
φ18	1	8
φ20	2	0
φ22	2	2
φ25	2	5
φ30	3	0
φ35	3	5

⑥ Height dimension

Height t (mm)	Mark		
	11	12	13
5	0	0	5
7	0	0	7
9	0	0	9
11	0	1	1
11.5	1	1	M
12	0	1	2
12.5	1	2	M
14	0	1	4
15	0	1	5
16	0	1	6
17	0	1	7
18	0	1	8
20	0	2	0
25	0	2	5
30	0	3	0
35	0	3	5
40	0	4	0
45	0	4	5
50	0	5	0
55	0	5	5
62	0	6	2
70	0	7	0
80	0	8	0
100	1	0	0

③ Series code

Series	Mark		
	5	6	
FA	F	A	
FD	F	D	
FM	F	M	
YK	Y	K	
RVT	R	V	T
HT	H	T	
HM	H	M	
SC	S	C	

⑦ Capacity deviation

Capacity (%)	Mark
±10	K
±20	M
+20~-10	V
+30~-10	Q
+50~-10	T
+20~0	A

⑨ Special requirements

Request	Mark			
	16	17	18	19
CUT3.0mm	C	3	0	0
CUT3.2mm	C	3	R	2
CUT6.0mm	C	6	0	0
CUT12mm	C	1	2	0
TP2.5mm	T	2	R	5
TP5.0mm	T	5	0	0
Impedence800mΩ	8	0		
Surge protection	F	L	J	-

Brand

Brand	Mark
APAQ	A
gather	NA

⑧ Hose material

SLEEVE material	Mark
PVC	V
PET	T

