Snap in Aluminum Electrolytic Capacitors

SNA Series



FEATURES

- High temperature, high ripple current capability, longer life
- Endurance: 105°C, 5000 hours
- RoHS Compliance

LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT

APPLICATIONS

- Solar interters, frequency converters, power supplies, etc.

RoHS COMPLIANT

HOW TO ORDER

S NA H45 221 M 450 B * -

Product Type
Aluminum

Series Type

Case Size
See table below

Capacitance Code
µF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)

Tolerance
M = ±20%

Special Request

Termination
K = 2 terminals
M = 4 terminals
Please contact manufacturer
Additional terminals upon request

Packaging
B = Bulk Pack

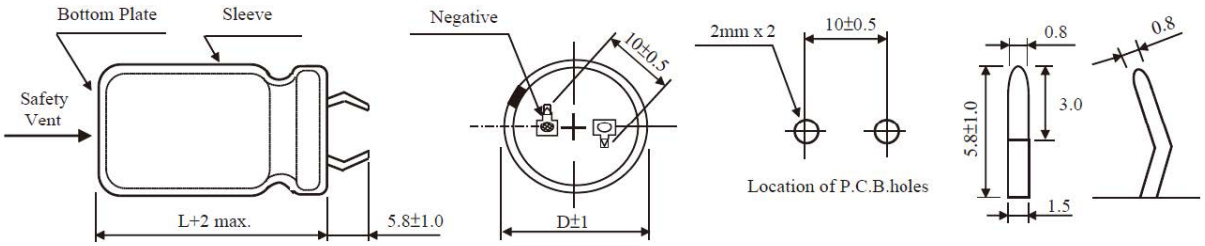
Rated DC Voltage
250 = 250Vdc
350 = 350Vdc
400 = 400Vdc
420 = 420Vdc
450 = 450Vdc

CASE DIMENSIONS millimeters (inches)

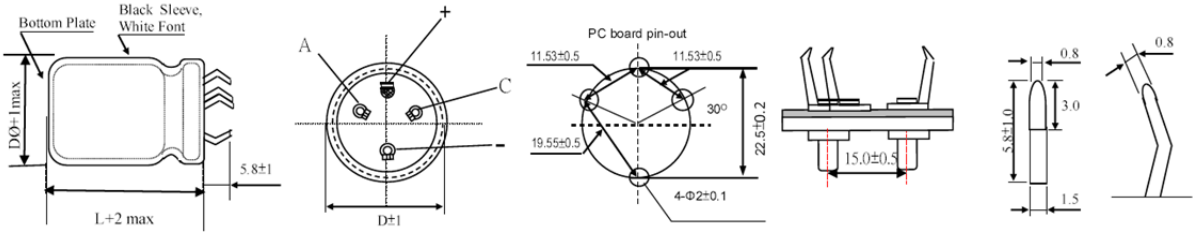
1st Character	D±1.00(0.039)	2nd & 3rd Character	L+2.00(0.079) Max.
G	22.00 (0.866)	25	25.00 (0.984)
H	25.00 (0.984)	30	30.00 (1.181)
I	30.00 (1.181)	35	35.00 (1.378)
J	35.00 (1.378)	40	40.00(1.575)
K	40.00 (1.574)	45	45.00 (1.772)
L	45.00 (1.771)	50	50.00 (1.969)
		80	80.00 (3.150)
		A0	100.00 (3.937)

Code	Typical Weight (g)	Code	Typical Weight (g)
G25	13.00	I35	36.00
G30	16.00	I40	40.00
G35	20.00	I45	45.00
G40	22.00	I50	50.00
G45	25.22	J25	33.20
G50	28.75	J30	36.00
H25	16.00	J35	39.47
H30	17.00	J40	59.30
H35	24.95	J45	52.00
H40	28.00	J50	61.00
H45	32.00	J80	135.00
H50	44.66	KA0	200.00
I25	24.00	LA0	225.00
I30	27.00		

K TERMINAL CONFIGURATION



M TERMINAL CONFIGURATION



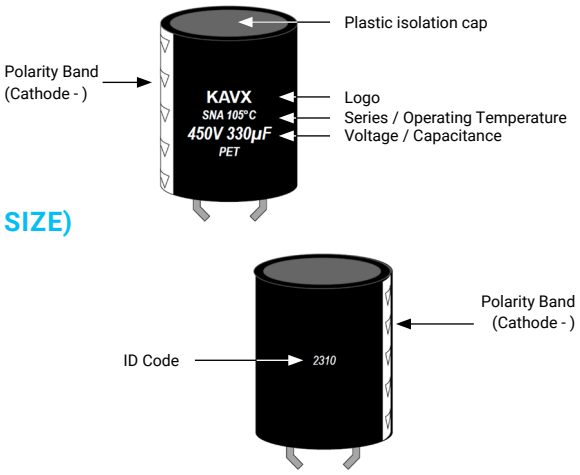
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SNA Series

TECHNICAL SPECIFICATIONS

Category Temperature Range:	-25ºC to +105°C	
Capacitance Range	At 25°C,120Hz	82µF to 2200µF
Capacitance Tolerance:	At 25°C,120Hz	±20%
Dissipation Factor (%)	Measurement Frequency: 120Hz at 25°C	Please see the Ratings and Part Number Reference Table below
Leakage Current:	After 5 minutes at rated working voltage at 25°C	I ≦ 3√CV(µA)

MARKING



CAPACITANCE AND RATED VOLTAGE RANGE (FIGURES DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V_R)				
µF	**Code**	**250V**	**350V**	**400V**	**420V**	**450V**
82	820					G25
100	101				G25	G30, H25
120	121				G30, H25	G35
150	151				G35	G45, H35, I25
180	181				G45, H35, I25	G50, H40, I30, J25
220	221	G25			G50, H40, I30, J25	H45, I35, J30
270	271	G30			H45, I35, J30	H50, I40, J35
330	331	H30			H50, I40, J35	I45
390	391	G40, H30, I25			I45, J40	I50, J45
470	471	G45, H35, I30			I50, J45	J50
560	561	G50, H40, I35, J25			J50	
680	681	H45, I40, J30				
820	821	H50, I45, J35				
1000	102	I50, J40				
1200	122	J45	J80			
1500	152	J50			KA0	
1800	182			LA0	KA0	

Released ratings

RATINGS & PART NUMBER REFERENCE

Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DF Max. (%)	120Hz RMS Current (A) / 105°C
250 Volt					
SNAG25221M250BK	G25	220	250	15	1.01
SNAG30271M250BK	G30	270	250	15	1.20
SNAH30331M250BK	H30	330	250	15	1.32
SNAG40391M250BK	G40	390	250	15	1.44
SNAH30391M250BK	H30	390	250	15	1.43
SNAI25391M250BK	I25	390	250	15	1.50
SNAG45471M250BK	G45	470	250	15	1.62
SNAH35471M250BK	H35	470	250	15	1.70
SNAI30471M250BK	I30	470	250	15	1.74
SNAG50561M250BK	G50	560	250	15	1.84
SNAH40561M250BK	H40	560	250	15	1.78
SNAI35561M250BK	I35	560	250	15	1.83
SNAJ25561M250BK	J25	560	250	15	1.90
SNAH45681M250BK	H45	680	250	15	2.04
SNAI40681M250BK	I40	680	250	15	2.06
SNAJ30681M250BK	J30	680	250	15	2.14
SNAH50821M250BK	H50	820	250	15	2.28
SNAI45821M250BK	I45	820	250	15	2.38
SNAJ35821M250BK	J35	820	250	15	2.37
SNAI50102M250BK	I50	1000	250	16	2.68
SNAJ40102M250BK	J40	1000	250	16	2.71
SNAJ45122M250BK	J45	1200	250	16	3.05
SNAJ50152M250BK	J50	1500	250	16	3.49
350 Volt					
SNAJ80152M350BM	J80	1500	350	15	3.60

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Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DF Max. (%)	120Hz RMS Current (A) / 105°C
400 Volt					
SNALA0222M400BM	LA0	2200	400	16	4.20
420 Volt					
SNAG25101M420BK	G25	100	420	20	0.66
SNAG30121M420BK	G30	120	420	20	0.76
SNAH25121M420BK	H25	120	420	20	0.77
SNAG35151M420BK	G35	150	420	20	0.86
SNAG45181M420BK	G45	180	420	20	0.98
SNAH35181M420BK	H35	180	420	20	1.01
SNAI25181M420BK	I25	180	420	20	1.02
SNAG50221M420BK	G50	220	420	20	1.11
SNAH40221M420BK	H40	220	420	20	1.13
SNAI30221M420BK	I30	220	420	20	1.14
SNAJ25221M420BK	J25	220	420	20	1.21
SNAH45271M420BK	H45	270	420	20	1.29
SNAI35271M420BK	I35	270	420	20	1.30
SNAJ30271M420BK	J30	270	420	20	1.37
SNAH50331M420BK	H50	330	420	20	1.45
SNAI40331M420BK	I40	330	420	20	1.48
SNAJ35331M420BK	J35	330	420	20	1.54
SNAI45391M420BK	I45	390	420	20	1.65
SNAJ40391M420BK	J40	390	420	20	1.73
SNAI50471M420BK	I50	470	420	20	1.85
SNAJ45471M420BK	J45	470	420	20	1.93
SNAJ50561M420BK	J50	560	420	20	2.17
SNAKA0152M420BM	KA0	1500	420	20	4.80
SNAKA0182M420BM	KA0	1800	420	20	5.00
450 Volt					
SNAG25820M450BK	G25	82	450	20	0.60
SNAG30111M450BK	G30	100	450	20	0.69
SNAH25111M450BK	H25	100	450	20	0.70
SNAG35121M450BK	G35	120	450	20	0.76
SNAG45151M450BK	G45	150	450	20	0.90
SNAH35151M450BK	H35	150	450	20	0.92
SNAI25151M450BK	I25	150	450	20	0.93
SNAG50181M450BK	G50	180	450	20	1.01
SNAH40181M450BK	H40	180	450	20	1.02
SNAI30181M450BK	I30	180	450	20	1.03
SNAJ25181M450BK	J25	180	450	20	1.09
SNAH45221M450BK	H45	220	450	20	1.16
SNAI35221M450BK	I35	220	450	20	1.17
SNAJ30221M450BK	J30	220	450	20	1.23
SNAH50271M450BK	H50	270	450	20	1.31
SNAI40271M450BK	I40	270	450	20	1.33
SNAJ35271M450BK	J35	270	450	20	1.38
SNAI45331M450BK	I45	330	450	20	1.51
SNAI50391M450BK	I50	390	450	20	1.67
SNAJ45391M450BK	J45	390	450	20	1.76
SNAJ50471M450BK	J50	470	450	20	1.98

Note: ESR values upon request
All technical data relates to an ambient temperature of +25°C. Capacitance and DF measured at 120Hz, 0.5RMS with DC bias of 2.2 volts.
DCL is measured at rated voltage after 5 minutes.

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Rated Voltage (V)	Frequency (Hz)				
	50	120	1K	10K	50K
250-350	0.80	1.00	1.15	1.45	1.50
400 - 450	0.76	1.00	1.14	1.40	1.42

QUALIFICATION TABLE

Test	SNA Series (Temperature Range -25°C to +105°C)			
	Condition	Characteristics		
Low Temperature Characteristics (Max. Impedance Ratio)	At 120Hz	Rated Voltage (V)	250-350	400 - 450
		Z(-25°C)/Z(+20°C)	4	8

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Test	SNA Series (Temperature Range -25°C to +105°C)		
	Condition	Characteristics	
Endurance	5000 hours, with application of rated voltage at 105°C	ΔC/C	≤±20% of the initial limit
		DF	≤ 200% of Initial specified limit
		DCL	≤ Initial specified limit
Shelf Life	The following specifications shall be satisfied when the capacitorsare restored to 25°C after exposing them for 1000 hours 105°C without voltage applied. The capacitance shall be preconditioned by applying voltage according to the 4.1 of JIS C5101-4.	ΔC/C	≤±15% of the initial limit
		DF	≤200% of Initial specified limit
		DCL	≤ Initial specified limit
Standards	JIS C 5101-4-1 (IEC 60384)		

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C.

STORAGE

1. It is recommended to keep capacitors between the ambient temperatures of 5°C to 35°C and a relative humidity of 75% or below.
2. Confirm that the environment does not have any of the following conditions:
   - Damp conditions such as water, saltwater spray, or oil spray or fumes. High humidity or humidity condensation situations.
   - In an atmosphere filled with toxic gasses (such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine, ammonia, etc.).
   - Being exposed to direct sunlight, ozone, ultraviolet ray, or radiation.
   - Exposed to acidic or alkaline solutions.
   - Under severe conditions where vibration or mechanical shock exceed the ranges of the specification.
3. 2yrs, after 1yr, needs to check characteristics, if NG, needs to do aging.

PACKING

Case Size	Dimension (D x L)	Quantity (pcs/Inner Box)	Layer Quantity	Total Quantity (pcs/Carton)	3.76Gross (kg/Inner Box)	Size Inner Box (mm)	Size Out Box (mm)
G25	22x25	300	4	1200	4.11	272x272x146	564x282x312
G30	22x30	300	4	1200	5.01		
G35	22x35	200	4	800	4.21		
G40	22x40	200	4	800	4.61		
G45	22x45	200	4	800	4.81		
G50	22x50	200	4	800	6.21		
H25	25x25	300	4	1200	5.05	302x302x146	624x312x312
H30	25x30	300	4	1200	5.35		
H35	25x35	300	4	1200	6.85		
H40	25x40	200	4	800	5.85		
H45	25x45	200	4	800	6.65		
H50	25x50	200	4	800	7.25		
I25	30x25	75	4	300	1.92	179x179x146	378x189x312
I30	30x30	75	4	300	2.15		
I35	30x35	75	4	300	2.82		
I40	30x40	50	4	200	2.12		
I45	30x45	50	4	200	2.37		
I50	30x50	50	4	200	2.62		
J25	35x25	75	4	300	2.75	204x204x146	428x214x312
J30	35x30	75	4	300	2.87		
J35	35x35	75	4	300	3.06		
J40	35x40	50	4	200	2.44		
J45	35x45	50	4	200	2.82		
J50	35x50	50	4	200	3.19		
J80	35x80	25	2	100	3.54	204x204x146	430x220x320
KA0	40x100	25	2	100	5.21	229x229x146	478x239x312
LA0	45x100	16	2	64	3.76	204x204x146	430x220x320

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