

Screw Terminal Aluminum Electrolytic Capacitors

SWN Series



FEATURES

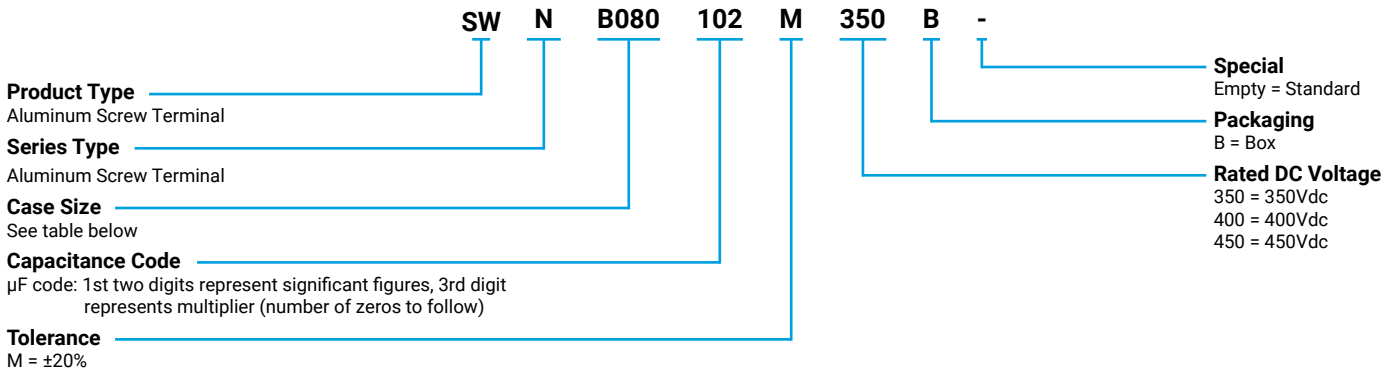
- Endurance: 2000 hours
- Operating Temperature: -25/+105 °C
- High capacity per case size
- RoHS Compliance and Halogen-free



APPLICATIONS

- Frequency converters
- Power supplies
- Smoothing and filtering

HOW TO ORDER

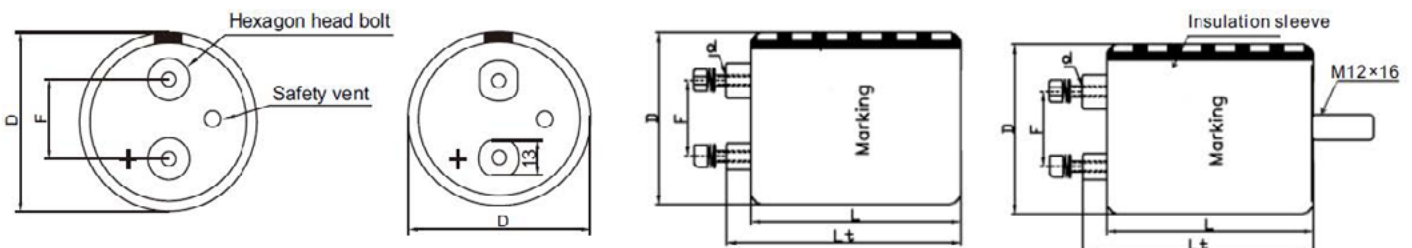
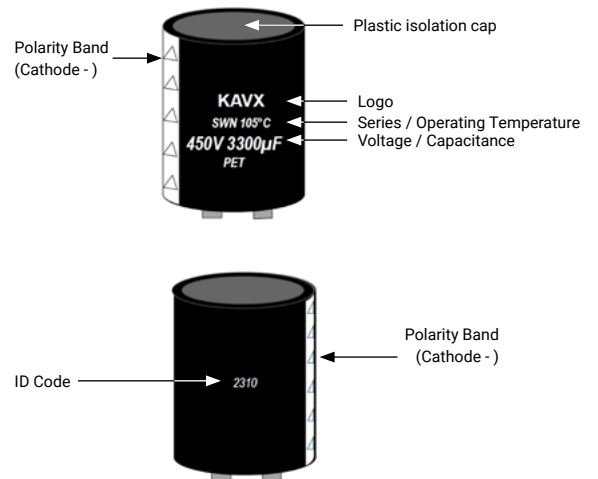


CASE DIMENSIONS millimeters (inches)

1st Character	D	F	d
B	51.60 (2.031)	22.20 (0.874)	M5
C	64.30 (2.531)	28.20 (1.110)	M5
D	76.90 (3.028)	31.70 (1.248)	MS or M6
E	91.00 (3.583)	31.70 (1.248)	M5 or M6

2nd, 3rd, & 4th Character	L+3.00(0.118) Max.	Lt Max.
080	80.00 (3.150)	87.50 (3.445)
096	96.00 (3.780)	103.50 (4.075)
100	100.00 (3.937)	107.50 (4.232)
105	105.00 (4.134)	112.50 (4.429)
115	115.00 (4.528)	122.50 (4.823)
130	130.00 (5.118)	137.50 (5.413)
143	143.00 (5.630)	150.50 (5.925)
155	155.00 (6.102)	162.50 (6.398)
157	157.00 (6.181)	164.50 (6.476)
168	168.00 (6.614)	175.50 (6.909)
196	196.00 (7.717)	203.50 (8.012)
220	220.00 (8.661)	227.50 (8.957)

MARKING



Screw Terminal Aluminum Electrolytic Capacitors

SWN Series

TECHNICAL SPECIFICATIONS

Category Temperature Range:	-25°C to +105°C	
Capacitance Range	at 25°C, 120Hz	1000µF to 15,000µF
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	≤0.02CV (µA) or 5mA, whichever is smaller

CAPACITANCE AND RATED VOLTAGE RANGE (FIGURES DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V _R)		
µF	Code	350V	400V	450V
1000	102	B080	B080	B105
1500	152	B080	B096	B115
2200	222	B096	C105	C115
3300	332	C105	C115 C130	D100
3900	392	C115	C130 D115	D115
4700	472	C143	D115 D130	D130
5600	562	D130	D130 D143	D143
6800	682	D143	D155 D168	D155
8200	822	D168	D155	E157
10,000	103	D196	D220 E157	E220
12,000	123	D220	E157 E196	
15,000	153	E196		

Released ratings

RATINGS & PART NUMBER REFERENCE

Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DF Max. (%)	ESR Max. @120Hz (mΩ)	120Hz RMS Current (A)/105°C
350V						
SWNB080102M350B	B080	1000	350	20	157	2.60
SWNB080152M350B	B080	1500	350	20	116	3.20
SWNB096222M350B	B096	2200	350	20	81	4.20
SWNC105332M350B	C105	3300	350	20	59	5.10
SWNC115392M350B	C115	3900	350	20	54	6.70
SWNC143472M350B	C143	4700	350	20	48	7.20
SWND130562M350B	D130	5600	350	20	40	8.50
SWND143682M350B	D143	6800	350	20	36	10.00
SWND168822M350B	D168	8200	350	20	31	11.70
SWND196103M350B	D196	10000	350	20	28	14.30
SWND220123M350B	D220	12000	350	20	25	16.80
SWNE196153M350B	E196	15000	350	20	24	18.30
400V						
SWNB080102M400B	B080	1000	450	20	158	3.00
SWNB096152M400B	B096	1500	450	20	107	3.70
SWNC105222M400B	C105	2200	450	20	76	4.60
SWNC115332M400B	C115	3300	450	20	54	6.00
SWNC130332M400B	C130	3300	450	20	53	6.40
SWNC130392M400B	C130	3900	450	20	47	7.50
SWND115392M400B	D115	3900	450	20	46	7.90
SWND115472M400B	D115	4700	450	20	41	8.00
SWND130472M400B	D130	4700	450	20	40	8.50
SWND130562M400B	D130	5600	450	20	37	9.50
SWND143562M400B	D143	5600	450	20	36	9.80
SWND155682M400B	D155	6800	450	20	32	10.20

Screw Terminal Aluminum Electrolytic Capacitors

SWN Series

Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	DF Max. (%)	ESR Max. @120Hz (mΩ)	120Hz RMS Current (A)/105°C
SWND168682M400B	D168	6800	450	20	31	10.50
SWND155822M400B	D155	8200	450	20	30	13.30
SWND220103M400B	D220	10000	450	20	25	17.50
SWNE157103M400B	E157	10000	450	20	25	17.50
SWNE157123M400B	E157	12000	400	20	23	21.00
SWNE196123M400B	E196	12000	450	20	23	21.30
450V						
SWNB105102M450B	B105	1000	450	20	153	4.30
SWNB115152M450B	B115	1500	450	20	102	5.80
SWNC115222M450B	C115	2200	450	20	75	7.30
SWND100332M450B	D100	3300	450	20	51	10.10
SWND115392M450B	D115	3900	450	20	45	10.90
SWND130472M450B	D130	4700	450	20	40	12.70
SWND143562M450B	D143	5600	450	20	36	15.90
SWND155682M450B	D155	6800	450	20	32	16.40
SWNE157822M450B	E157	8200	450	20	24	17.00
SWNE220103M450B	E220	10000	450	20	21	18.80

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Rated Voltage (Vdc)	Frequency (Hz)				
	50Hz	120Hz	300Hz	1kHz	3kHz
350 - 450	0.80	1.00	1.10	1.30	1.40

QUALIFICATION TABLE

Test	SWN Series (Temperature range -25°C to +105°C)		
	Condition	Characteristics	
Low Temperature Characteristics (Capacitance Ratio at 120Hz)	C(-25°C) / C(+20°C) ≥ 0.7		
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for 2000 hours at 105°C.	ΔC/C	≤ ±20% of the initial limit
		DF	≤ 200% of the initial specified limit
		DCL	≤ initial specified limit
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.	ΔC/C	≤ ±20% of the initial limit
		DF	≤ 150% of the initial specified limit
		DCL	≤ 200% of the initial specified limit

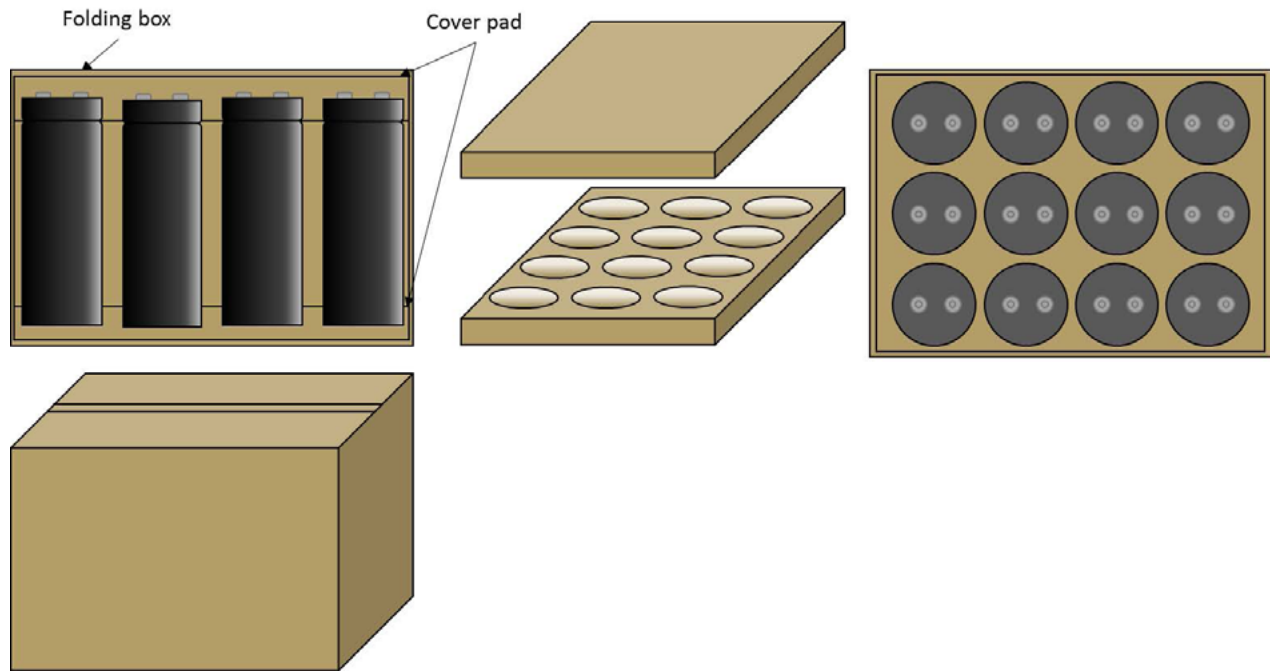
STORAGE

- It is recommended to keep capacitors between the ambient temperatures of 5°C to 35°C and a relative humidity of 75% or below.
- Normally, the storage time of screw capacitors is 2 years. If not exceeding the storage time, the storage capacitors can be used directly. But for capacitor bank (bank of capacitors connected in parallel or in series or in combined parallel & series circuits), for safety reason, we recommend to check the leakage current of the capacitor when it has been stored for more than 6 months before using.
- If storage time exceed three years, the products need to be discarded.
- Avoid storing the capacitors under such circumstances:
 - With water and oil or damp & dewing location
 - With gas and oil
 - With toxic gases such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine, bromine and methyl bromide
 - With direct sunlight, Ozone, ultraviolet rays or radiation

Screw Terminal Aluminum Electrolytic Capacitors

SWN Series

PACKAGE TAPE DIMENSIONS



Case Size	Dim. ϕ	Quantity	Carton Size (LxWxH)
B	51.60	20	400 x 300 x 120 - 185
C	64.30	15	400 x 300 x 120 - 230
D	76.90	12	400 x 300 x 120 - 260
E	91.00	8	400 x 300 x 120 - 285