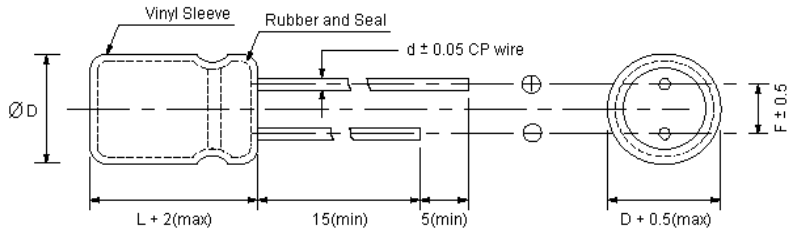
DB LECTRO
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

RoHS Compliant ALUMINIUM ELECTROLYTIC CAPACITOR — SM Series

■ FEATURES

- ◆ Miniaturized low profile with 9mm to 25mm height
- ◆ Load life of 2000 hours at 85°C

■ OUTLINE



mm

D	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0		7.5	
d	0.5			0.6		0.8	

■ SPECIFICATIONS

Items	Characteristics												
Capacitance Tolerance (120Hz, 25°C)	± 20% (M)												
Rated Working Voltage Range	6.3 ~ 250Vdc						350 ~ 450Vdc						
Operation Temperature	-40°C ~ +85°C						-25°C ~ +85°C						
Leakage Current (25°C)	(After 2 minutes applying the DC working voltage)						(After 1 minute applying the DC working voltage)						
	I ≤ 0.01CV or 3 (*u*A)						I ≤ 0.04CV + 100 (*u*A)						
	◆ I : Leakage Current (*u*A) ◆ C : Rated Capacitance (*u*F) ◆ V : Working Voltage (V)												
Surge Voltage (25°C)	**W.V.**	**6.3**	**10**	**16**	**25**	**35**	**50**	**160**	**200**	**250**	**350**	**400**	**450**
	S.V.	8	13	20	32	44	63	200	250	300	400	450	500
Dissipation Factor (120Hz, 25°C)	**W.V.**	**6.3**	**10**	**16**	**25**	**35**	**50**	**160**	**200**	**250**	**350**	**400**	**450**
	tan δ	0.28	0.24	0.20	0.16	0.14	0.12	0.15	0.15	0.15	0.20	0.24	0.24
	◆ For capacitance exceeding 1000 *u*F, add 0.02 per increment of 1000 *u*F												
Temperature Characteristics	**W.V.**	**6.3**	**10**	**16**	**25**	**35**	**50**	**160**	**200**	**250**	**350**	**400**	**450**
	- 25°C / + 25°C	5	4	3	2	2	2	3	3	3	6	6	6
	- 40°C / + 25°C	12	10	8	5	4	3	6	6	6	-	-	-
	◆ Impedance ratio at 120Hz												
Load Test	After 2000 hours application of WV at +85°C, the capacitor shall meet the following limits: (1000 hours for 8ϕ and smaller)												
	Capacitance Change	≤ ± 20% of initial value											
	tan δ	≤ 200% of initial specified value											
	Leakage Current	≤ initial specified value											
Shelf Test	After 1000 hours, no voltage applied at +85°C, the capacitor shall meet the following limits:												
	Capacitance Change	≤ ± 20% of initial value											
	tan δ	≤ 200% of initial specified value											
	Leakage Current	≤ 200% of initial specified value											

DB LECTRO

■ **DIMENSIONS** D x L (mm)

WV / uF	6.3	10	16	25	35	50	160	200	250	350	400	450
1					]	5 x 9						
2.2					]	5 x 9					8 x 9	10 x 9
3.3					]	5 x 9				8 x 9	10 x 9	10 x 9
4.7					]	5 x 9	8 x 9	8 x 9	8 x 9	10 x 9	10 x 9	
10					]	5 x 9	10 x 9	10 x 9	10 x 9	13 x 13	13 x 13	16 x 16
22					]	5 x 9			13 x 16	13 x 16	13 x 16	16 x 20
33					5 x 9	6.3 x 9	13 x 16	13 x 16	16 x 16	16 x 20	16 x 20	18 x 20
47			]	5 x 9	]	6.3 x 9	13 x 16	16 x 16	16 x 20	18 x 20	18 x 20	18 x 25
100	]	5 x 9	]	6.3 x 9	8 x 9	10 x 9	16 x 20	16 x 20	18 x 20			
220	5 x 9	6.3 x 9	8 x 9	]	10 x 9		18 x 25					
330	6.3 x 9	]	8 x 9	10 x 9		13 x 13						
470	]	8 x 9	10 x 9	]	13 x 13	16 x 16						
1000	10 x 9	10 x 9	13 x 13	13 x 16	16 x 16	18 x 20						
2200	]	13 x 16	16 x 16	18 x 16	18 x 20							
3300	]	16 x 16	18 x 16	18 x 20								
4700	16 x 16	18 x 16	18 x 20	18 x 25								
6800	18 x 16	18 x 20	18 x 25									
10000	18 x 20	18 x 25										

■ **PERMISSIBLE RIPPLE CURRENT** mA (rms) at 120Hz 85°C

WV / uF	6.3	10	16	25	35	50	160	200	250	350	400	450
1					]	13						
2.2					]	26					34	35
3.3					]	31				35	38	37
4.7					]	37	49	49	49	47	47	
10					]	63	83	83	83	98	98	74
22					]	84			154	148	148	168
33					89	107	175	175	228	235	235	226
47			]	100	]	128	220	255	275	310	310	250
100	]	126	]	163	209	233	395	402	420			
220	190	207	276	]	318		602					
330	235	]	337	361		498						
470	]	366	390	]	556	708						
1000	479	520	679	788	960	1102						
2200	]	922	1102	1292	1482							
3300	]	1245	1387	1634								
4700	1340	1482	1682	1967								
6800	1577	1777	1996									
10000	1920	2252										