

REB M88-28(BG)

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

■ **BLACKGATE BG** SERIES [For Audio]

By the employment of an innovative structure where a gate electrode has been formed by providing the paper separator with an ion transmitting electroconductive fine particulate layer, Rubycon's "BG Series" aluminum electrolytic capacitors for the audio application have resolved the degraded resolution and reduced power in medium to low frequency regions that in the past were almost inevitable with conventional electrolytic capacitors.

■ **FEATURES**

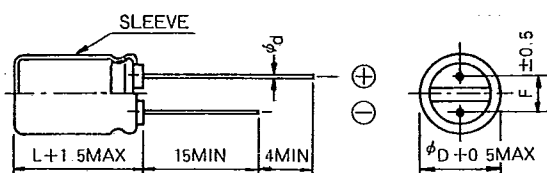
- Enhanced ion conducting characteristics by means of an ion transmitting electroconductive fine particulate layer.
- Reduced non-linear distortions through the elimination of ferromagnetic materials
- Lowered ESRs.
- Sound quality emphasizing design philosophy employed consistently for electrode foils, electrolyte, capacitor construction, manufacturing processes and other operational phases.

■ **SPECIFICATION TABLE**

1	OPERATING TEMPERATURE RANGE	-40°C to +85°C																																		
2	RATED VOLTAGE RANGE	6.3~100V.DC																																		
3	CAPACITANCE TOLERANCE(120Hz)	-20%~+20% (20°C)																																		
4	LEAKAGE CURRENT(μA max) (Apply rated voltage for 5minutes before test)	I =0.01CV+3μA I =Leakage Current (μA) C=Nominal Capacitance (μF) V=Rated Voltage (V)																																		
5	DISSIPATION FACTOR (max) at 120Hz (20°C)	<table><tr><td>RATED VOLTAGE</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>DF(tan δ)</td><td>0.24</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.13</td><td>0.10</td><td>0.10</td><td>0.08</td></tr></table>								RATED VOLTAGE	6.3	10	16	25	35	50	63	100	DF(tan δ)	0.24	0.20	0.17	0.15	0.13	0.10	0.10	0.08									
		RATED VOLTAGE	6.3	10	16	25	35	50	63	100																										
DF(tan δ)	0.24	0.20	0.17	0.15	0.13	0.10	0.10	0.08																												
		For capacitors whose capacitance exceed 1000μF, the value of DF(tan δ) is increased by 0.02 for every addition of 1000μF																																		
6	LOW TEMPERATURE STABILITY (Impedance ratio against +20°C at 120Hz)	<table><tr><td>RATED VOLTAGE</td><td>6.3</td><td>10</td><td>15</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Z/(-25)/Z(20)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z/(-40)/Z(20)</td><td>8</td><td>6</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td></tr></table>								RATED VOLTAGE	6.3	10	15	25	35	50	63	100	Z/(-25)/Z(20)	4	3	2	2	2	2	2	2	Z/(-40)/Z(20)	8	6	6	4	4	3	3	3
		RATED VOLTAGE	6.3	10	15	25	35	50	63	100																										
		Z/(-25)/Z(20)	4	3	2	2	2	2	2	2																										
Z/(-40)/Z(20)	8	6	6	4	4	3	3	3																												
7	LIFE TEST AT 85°C AND RATED VOLTAGE	TEST HOURS	1000hours																																	
		LEAKAGE CURRENT	Shall not exceed value given in column 4																																	
		CAPACITANCE CHANGE	Within ±25% of the initial value																																	
		DF(tan δ)	Shall not exceed 200% of the value given in column 5																																	
8	SHELF TEST AT 85°C	TEST HOURS	500hours																																	
		LEAKAGE CURRENT	Shall not exceed value given in column 4																																	
		CAPACITANCE CHANGE	Within ±20% of the initial value																																	
		DF(tan δ)	Shall not exceed 150% of the value given in column 5(After Voltage treatment of the JIS)																																	
9	OTHERS	Comply with JIS C-5141 characteristic W																																		

■ **DIMENSIONS**

UNIT : mm



ϕD	5	6.3	8	10	12.5	16	18
ϕd	0.6	0.6	0.6	0.8	0.8	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5

■ **STANDARD CASE SIZES**($\phi D \times L$ mm)

NOMINAL CAPACITANCE (μ F)	6.3 (0J)	10 (1A)	16 (1C)	25 (1E)	35 (1V)	50 (1H)	63 (1J)	100 (2A)
0.47						5 × 11		5 × 11
1						5 × 11		5 × 11
2.2						5 × 11	5 × 11	6.3 × 11
3.3						5 × 11	5 × 11	8 × 11
4.7				5 × 11	5 × 11	6.3 × 11	6.3 × 11	8 × 11
10			5 × 11	6.3 × 11	6.3 × 11	8 × 11	8 × 11	10 × 12.5
22	5 × 11	5 × 11	6.3 × 11	8 × 11	8 × 11	10 × 12.5	10 × 16	10 × 20
33	6.3 × 11	6.3 × 11	6.3 × 11	8 × 11	10 × 12.5	10 × 16	10 × 16	12.5 × 20
47	6.3 × 11	6.3 × 11	8 × 11	10 × 12.5	10 × 12.5	10 × 16	10 × 20	12.5 × 25
100	8 × 11	8 × 11	10 × 12.5	10 × 16	10 × 20	12.5 × 20	12.5 × 25	16 × 25
220	10 × 12.5	10 × 16	10 × 20	12.5 × 20	12.5 × 25	16 × 25	16 × 31.5	18 × 40
330	10 × 16	10 × 20	12.5 × 20	12.5 × 25	16 × 25	16 × 31.5	16 × 35.5	
470	10 × 20	12.5 × 20	12.5 × 25	16 × 25	16 × 25	16 × 35.5	18 × 35.5	
1000	12.5 × 25	12.5 × 25	16 × 25	16 × 35.5	18 × 35.5			
2200	16 × 25	16 × 31.5	18 × 35.5					
3300	16 × 31.5	18 × 40						
4700	18 × 35.5							