

# Aluminum Electrolytic Capacitors

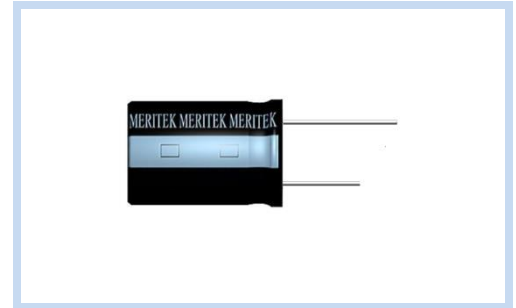
## 105°C 4000~10000Hrs

RFB Series

MERITEK

### FEATURE

- Operating Temperature: -40°C ~ +105°C
- Low Impedance and Long Life Withstanding
- Suitable for Electronic Ballast, Adaptor and Switching Power
- Load Life



Voltage	6.3~10V			16~100V		
Dia(mm)	≤6.3	8~10	≥12.5	≤6.3	8~10	≥12.5
Life(hrs)	4000	6000	8000	5000	7000	10000



### SPECIFICATIONS

Item	Characteristic									
Operation Temperature	-40°C ~ + 105°C									
Rated Working Voltage	6.3 ~ 100VDC									
Capacitance Tolerance	±20% (M) , 120Hz 20°C									
Leakage Current at 20°C	I ≤0.01CV or 3 ( μA ) *Whichever is greater after 3 minutes					I:	Leakage Current ( μA )			
						C:	Capacitance ( μF )			
						V:	Working Voltage ( V )			
Surge Voltage at 20°C	Rated Voltage ( V )	6.3	10	16	25	35	50	63	100	
	Surge Voltage ( V )	8	13	20	32	44	63	79	125	
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage ( V )	6.3	10	16	25	35	50	63	100	
	tan δ max	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	
	Add 0.02 per 1000 μF for more than 1000 μF									
Low Temperature Stability	Rated Voltage ( V )	6.3		10		16		25~100		
	-25°C / +20°C	4		3		2		2		
	-40°C / +20°C	8		6		4		3		
	Impedance ratio at 120Hz									
Load Life	Capacitance Change	≤ ±25% of initial value					After working hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)			
	Dissipation Factor	≤ 200% of initial value								
	Leakage current	≤ initial specified value					6.3~10V			
							Dia	≤6.3mm	8~10mm	≥12.5mm
						16~100V				
							Dia	≤6.3mm	8~10mm	≥12.5mm
							Life	4000hrs	6000hrs	8000hrs
							Life	5000hrs	7000hrs	10000hrs
Shelf Life	At + 105°C no voltage application after 1000 hours. the capacitors shall meet the limits for load life characteristics. (With voltage treatment)									

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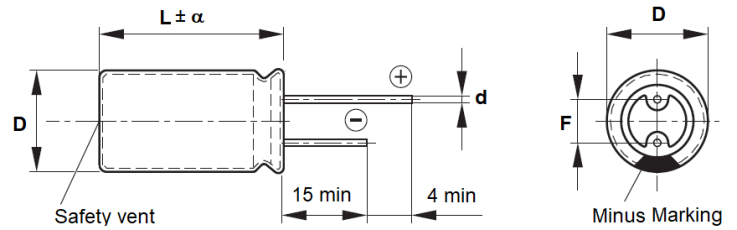
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### DIMENSION

Unit: mm

D+0.5(max)	5	6.3	8	10	12.5	16	18
F±0.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d±0.05	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	1.5	1.5	1.5	1.5	1.5	1.5	1.5



### RIPPLE CURRENT COEFFICIENTS

Capacitance	Frequency Coefficient			
	120Hz	1KHz	10KHz	≥ 100KHz
0.47~10 μF	0.42	0.60	0.80	1.00
22~33 μF	0.55	0.75	0.90	1.00
47~330 μF	0.70	0.85	0.95	1.00
470~1000 μF	0.75	0.90	0.98	1.00
2200~15000 μF	0.80	0.95	1.00	1.00

Temperature Coefficient	
°C	Factor
≤ 65°C	2.12
85°C	1.69
105°C	1.00

### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		6.3VDC (0J)				10VDC (1A)			
		DxL	Impedance		RC	DxL	Impedance		RC
μF	Code	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)
47	470	--	--	--	--	--	--	--	--
100	101	5x11	0.595	1.784	200	5x11	0.482	1.446	210
220	221	6.3x11	0.307	0.922	340	6.3x11	0.249	0.747	350
330	331	6.3x11	0.246	0.737	410	8x11.5	0.169	0.507	500
470	471	8x11.5	0.178	0.534	540	8x11.5	0.138	0.415	560
1000	102	10x12.5	0.066	0.199	920	10x16	0.063	0.189	1070
2200	222	12.5x20	0.038	0.113	1660	12.5x20	0.036	0.108	1720
3300	332	12.5x20	0.032	0.095	1910	12.5x25	0.030	0.090	2170
4700	472	16x25	0.027	0.080	2660	16x25	0.025	0.076	2730
6800	682	16x25	0.024	0.071	2920	16x31.5	0.023	0.068	3300
10000	103	16x31.5	0.021	0.064	3450	18x35.5	0.020	0.061	3940
15000	153	18x35.5	0.020	0.061	4130	--	--	--	--

Note:

1. Max ripple current :mA(rms) at 105°C. 100KHz
2. Max impedance(Ω) at 100KHz

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### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		16VDC (1C)			
		DxL	Impedance		RC
μF	Code	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)
47	470	5x11	0.568	1.703	150
100	101	6.3x11	0.367	1.101	250
220	221	8x11.5	0.190	0.569	430
330	331	8x11.5	0.152	0.455	520
470	471	10x12.5	0.093	0.279	690
1000	102	10x20	0.060	0.180	1230
2200	222	12.5x25	0.034	0.103	1960
3300	332	16x25	0.029	0.086	2570
4700	472	16x31.5	0.024	0.073	3100
6800	682	18x35.5	0.022	0.065	3800

Capacitance		25VDC (1E)				35VDC (1V)			
		DxL	Impedance		RC	DxL	Impedance		RC
μF	Code	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)
33	330	5x11	0.672	2.015	150	5x11	0.635	1.905	160
47	470	5x11	0.539	1.616	170	6.3x11	0.510	1.529	210
100	101	6.3x11	0.348	1.045	280	8x11.5	0.329	0.988	370
220	221	8x11.5	0.180	0.540	480	10x12.5	0.128	0.383	640
330	331	10x12.5	0.108	0.324	700	10x16	0.102	0.306	870
470	471	10x16	0.088	0.265	860	10x20	0.084	0.251	1070
1000	102	12.5x20	0.057	0.171	1580	12.5x25	0.054	0.162	1940
2200	222	16x25	0.032	0.097	2540	16x31.5	0.031	0.092	3070
3300	332	16x31.5	0.027	0.081	3180	18x35.5	0.026	0.077	3870
4700	472	18x35.5	0.023	0.069	3880	--	--	--	--

Note:

3. Max ripple current :mA(rms) at 105°C. 100KHz

4. Max impedance(Ω) at 100KHz

# Aluminum Electrolytic Capacitors

## 105°C 4000~10000Hrs

RFB Series

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### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		50VDC (1H)				63VDC (1J)			
		DxL	Impedance		RC	DxL	Impedance		RC
μF	Code	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)
0.47	R47	5x11	5.658	16.973	25	--	--	--	--
1.0	010	5x11	3.989	11.966	36	--	--	--	--
2.2	2R2	5x11	2.417	7.252	55	--	--	--	--
3.3	3R3	5x11	2.014	6.043	65	--	--	--	--
4.7	4R7	5x11	1.697	5.092	80	--	--	--	--
10	100	5x11	1.330	3.989	110	5x11	1.246	3.737	120
22	220	5x11	0.725	2.176	140	6.3x11	0.679	2.038	180
33	330	6.3x11	0.564	1.692	200	8x11.5	0.528	1.585	250
47	470	6.3x11	0.453	1.358	230	8x11.5	0.424	1.272	280
100	101	8x14	0.292	0.877	420	10x16	0.192	0.575	530
220	221	10x16	0.113	0.340	760	10x25	0.099	0.297	960
330	331	10x20	0.091	0.272	1020	12.5x25	0.079	0.238	1330
470	471	12.5x20	0.074	0.223	1290	12.5x30	0.065	0.195	1610
1000	102	16x25	0.048	0.144	2390	16x35.5	0.042	0.126	2900
2200	222	18x35.5	0.027	0.082	3650	--	--	--	--

Capacitance		100VDC (2A)			
		DxL	Impedance		RC
μF	Code	(mm)	20°C(Ω)	-10°C(Ω)	mA(rms)
0.47	R47	5x11	5.301	15.902	26
1.0	010	5x11	3.737	11.211	37
2.2	2R2	5x11	2.265	6.794	55
3.3	3R3	5x11	1.887	5.662	65
4.7	4R7	5x11	1.590	4.771	80
10	100	6.3x11	1.246	3.737	130
22	220	8x11.5	0.679	2.038	190
33	330	10x12.5	0.317	0.951	270
47	470	10x16	0.254	0.763	350
100	101	12.5x20	0.164	0.493	640
220	221	16x25	0.085	0.255	1200
330	331	16x25	0.068	0.204	1470

Note:

5. Max ripple current :mA(rms) at 105°C. 100KHz

6. Max impedance(Ω) at 100KHz

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RFB Series

**MERITEK**

### PART NUMBERING SYSTEM

RFB   1H   101   M   H   140   A   D  
 (1)   (2)   (3)   (4)   (5)   (6)   (7)   (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	RFB	Aluminum Electrolytic Capacitors	Low impedance, 10000Hrs 105°C
(2)	Rated Voltage Code	1H	1H:50V	DC working voltage, See Table Below
(3)	Capacitance	101	101:100µF	First two digit: significant, Third: Multiplier
(4)	Tolerance	M	M: ± 20%	-20% ~ +20%
(5)	Case Diameter Code	H	H: 8.0mm	See Table Below
(6)	Case Height	140	140: 14.0 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	D	D: 3.5 mm	See Table Below, Blank: Bulk

Voltage	4	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	500
Code	0G	0J	1A	1C	1E	1V	1H	1J	2A	2C	2D	2E	2V	2G	2W	2H

Diameter	4	5	6.3	8	10	12.5	14.5	16	18	20	22	25
Code	D	E	F	H	J	K	U	L	M	N	P	Q

Pitch	1.5	2	2.5	3.5	5	7.5
Code	A	B	C	D	E	F

### LEGACY PART NUMBERING SYSTEM

RFB   50V   101   M   TA   0814  
 (1)   (2)   (3)   (4)   (5)   (6)

No	(1)	(2)	(3)	(4)	(5)	(6)
Item	Meritek Series	Rated Voltage	Capacitance	Tolerance	Package	Case Size

\*Specifications subject to change without notice.