

# Aluminum Electrolytic Capacitors

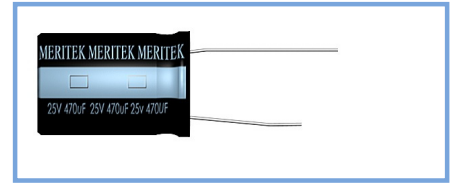


**RFB Series**  
(High R.C., Long Life)

**MERITEK**

## FEATURES

- Low impedance and long life withstanding 10000 hours load life.
- Suitable for electronic ballast, adaptor and switching power.



## SPECIFICATIONS

Item	Characteristic										
Operating Temp Range	- 40 ~ +105°C										
Rated Working Voltage	6.3 ~ 100VDC										
Capacitance Tolerance (120Hz 20°C)	± 20%(M)										
Leakage Current (20°C)	I ≤ 0.01CV or 3(μA) * Whichever is greater after 3 minutes					I : Leakage Current (μA) C : Rated Capacitance(μF) V : Working Voltage (V)					
Surge Voltage (20°C)	W.V.	6.3	10	16	25	35	50	63	100		
	S.V.	8	13	20	32	44	63	79	125		
Dissipation Factor ( tan δ ) (120Hz 20°C)	Add 0.02 per 1000uF for more than 1000uF										
	W.V.	6.3	10	16	25	35	50	63	100		
	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08		
Low Temperature Stability	Impedance ratio at 120Hz										
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100		
	-25°C / +20°C	4	3	2	2						
	-40°C / +20°C	8	6	4	3						
Load Life	After application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. ( DC + ripple peak voltage ≤ rated working voltage )										
	Rated Voltage (V)	6.3~10					16~100				
	Life Time	φD≤6.3mm 4000hrs, φD8~10mm 6000hrs, φD≥12.5mm 8000hrs					φD≤6.3mm 5000hrs, φD8~10mm 7000hrs, φD≥12.5mm 10000hrs				
	Capacitance Change	≤ ±25% of initial value.									
	Dissipation Factor	≤ 200% of initial specified value									
	Leakage Current	≤ initial specified value									
Shelf Life	At +105°C no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. ( with voltage treatment )										

## PART NUMBER SYSTEM

**RFB 63V 101 M TA 10x16**

Meritek Series

Rated Voltage

Rated Capacitance

Express in micro farad(μF), First two digits are significant figures, Third digit denotes number of zeros. 'R' denotes decimal point for values less than 10uF

Tolerance

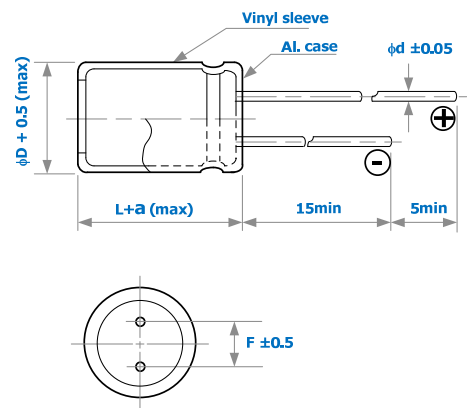
M - ±20%

Package

Code	TA	TR	Blank
	Tape & Ammo	Tape & Reel	

Case size - (D) Diameter x (L) Length in mm (Optional)

## DIMENSIONS (mm)



φD	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	1.5	1.5	1.5	1.5

# Aluminum Electrolytic Capacitors



**RFB Series**  
(High R.C., Long Life)

**MERITEK**

## RIPPLE CURRENT COEFFICIENTS

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

Temperature(°C)	≤65	85	105
Multiplier	2.12	1.69	1.00

## CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)  
 Max. impedance : Ω 100kHz  
 Max. ripple current : mA(rms) 105°C 100kHz

Cap. (uF)	V	6.3				10				16				
		Item	DxL	IMP		R.C.	DxL	IMP		R.C.	DxL	IMP		R.C.
				20°C	-10°C			20°C	-10°C			20°C	-10°C	
47										5x11	0.568	1.703	150	
100	5x11		0.595	1.784	200	5x11	0.482	1.446	210	6.3x11	0.367	1.101	250	
220	6.3x11		0.307	0.922	340	6.3x11	0.249	0.747	350	8x11.5	0.190	0.569	430	
330	6.3x11		0.246	0.737	410	8x11.5	0.169	0.507	500	8x11.5	0.152	0.455	520	
470	8x11.5		0.178	0.534	540	8x11.5	0.138	0.415	560	10x12.5	0.093	0.279	690	
1000	10x12.5		0.066	0.199	920	10x16	0.063	0.189	1070	10x20	0.060	0.180	1230	
2200	12.5x20		0.038	0.113	1660	12.5x20	0.036	0.108	1720	12.5x25	0.034	0.103	1960	
3300	12.5x20		0.032	0.095	1910	12.5x25	0.030	0.090	2170	16x25	0.029	0.086	2570	
4700	16x25		0.027	0.080	2660	16x25	0.025	0.076	2730	16x31.5	0.024	0.073	3100	
6800	16x25		0.024	0.071	2920	16x31.5	0.023	0.068	3300	18x35.5	0.022	0.065	3800	
10000	16x31.5		0.021	0.064	3450	18x35.5	0.020	0.061	3940					
15000	18x35.5		0.020	0.061	4130									

Cap. (uF)	V	25				35				50				
		Item	DxL	IMP		R.C.	DxL	IMP		R.C.	DxL	IMP		R.C.
				20°C	-10°C			20°C	-10°C			20°C	-10°C	
0.47										5x11	5.658	16.973	25	
1.0										5x11	3.989	11.966	36	
2.2										5x11	2.417	7.252	55	
3.3										5x11	2.014	6.043	65	
4.7										5x11	1.697	5.092	80	
10										5x11	1.330	3.989	110	
22										5x11	0.725	2.176	140	
33	5x11		0.672	2.015	150	5x11	0.635	1.905	160	6.3x11	0.564	1.692	200	
47	5x11		0.539	1.616	170	6.3x11	0.510	1.529	210	6.3x11	0.453	1.358	230	
100	6.3x11		0.348	1.045	280	8x11.5	0.329	0.988	370	8x14	0.292	0.877	420	
220	8x11.5		0.180	0.540	480	10x12.5	0.128	0.383	640	10x16	0.113	0.340	760	
330	10x12.5		0.108	0.324	700	10x16	0.102	0.306	870	10x20	0.091	0.272	1020	
470	10x16		0.088	0.265	860	10x20	0.084	0.251	1070	12.5x20	0.074	0.223	1290	
1000	12.5x20		0.057	0.171	1580	12.5x25	0.054	0.162	1940	16x25	0.048	0.144	2390	
2200	16x25		0.032	0.097	2540	16x31.5	0.031	0.092	3070	18x35.5	0.027	0.082	3650	
3300	16x31.5		0.027	0.081	3180	18x35.5	0.026	0.077	3870					
4700	18x35.5		0.023	0.069	3880									

# Aluminum Electrolytic Capacitors



**RFB Series**  
(High R.C., Long Life)

**MERITEK**

## CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)  
 Max. impedance :  $\Omega$  100kHz  
 Max. ripple current : mA(rms) 105°C 100kHz

Cap. ( $\mu$ F)	V		63			100			
	Item	DxL	IMP		R.C.	DxL	IMP		R.C.
			20°C	-10°C			20°C	-10°C	
0.47						5x11	5.301	15.902	26
1.0						5x11	3.737	11.211	37
2.2						5x11	2.265	6.794	55
3.3						5x11	1.887	5.662	65
4.7						5x11	1.590	4.771	80
10	5x11		1.246	3.737	120	6.3x11	1.246	3.737	130
22	6.3x11		0.679	2.038	180	8x11.5	0.679	2.038	190
33	8x11.5		0.528	1.585	250	10x12.5	0.317	0.951	270
47	8x11.5		0.424	1.272	280	10x16	0.254	0.763	350
100	10x16		0.192	0.575	530	12.5x20	0.164	0.493	640
220	10x25		0.099	0.297	960	16x25	0.085	0.255	1200
330	12.5x25		0.079	0.238	1330	16x25	0.068	0.204	1470
470	12.5x30		0.065	0.195	1610				
1000	16x35.5		0.042	0.126	2900				