

# Aluminum Electrolytic Capacitors

## 105°C 2000~3000Hrs

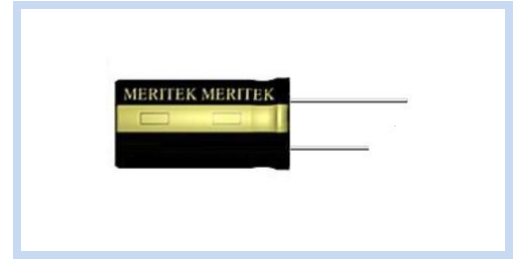
RE Series

MERITEK

### FEATURE

- Operating Temperature: -55°C ~ +105°C
- High Ripple Current, Low E.S.R. and Long Life
- Suitable for Output of Switching Power Supplies
- Load Life

Dia	≤8mm	≥10mm
Life	2000hrs	3000hrs



### SPECIFICATIONS

Item	Characteristic								
Operation Temperature	-55°C ~ + 105°C								
Rated Working Voltage	10 ~ 100VDC								
Capacitance Tolerance	±20% (M) +50% -10%(T) ; at 120Hz 20°C								
Leakage Current at 20°C	I ≤ 0.01CV *after 3 minutes					I:	Leakage Current ( μA)		
						C:	Capacitance ( μF)		
						V:	Working Voltage (V)		
Surge Voltage at 20°C	Rated Voltage (V)	10	16	25	35	50	63	100	
	Surge Voltage (V)	13	20	32	44	63	79	125	
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	10	16	25	35	50	63	100	
	tan δ max	0.12	0.10	0.09	0.08	0.07	0.06	0.06	
	Add 0.02 per 1000 μF for more than 1000 μF								
Low Temperature Stability Impedance ratio at 120Hz	Rated Voltage (V)	10~16			25~100				
	-25°C / +20°C	3			2				
	-55°C / +20°C	6			4				
Load Life	Capacitance Change	≤ ±20% 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 specified value							
	Leakage current	≤ initial specified value							
	Dia	≤8mm	≥10mm						
	Life	2000hrs	3000hrs						
Shelf Life	Capacitance Change	≤ ±20% of initial value					At + 105°C no voltage application after 1000 hours the capacitor shall meet the following limits. (with voltage treatment)		
	Dissipation Factor	≤ 200% of initial specified value							
	Leakage current	≤ 200% of initial specified value							

# Aluminum Electrolytic Capacitors

## 105°C 2000~3000Hrs

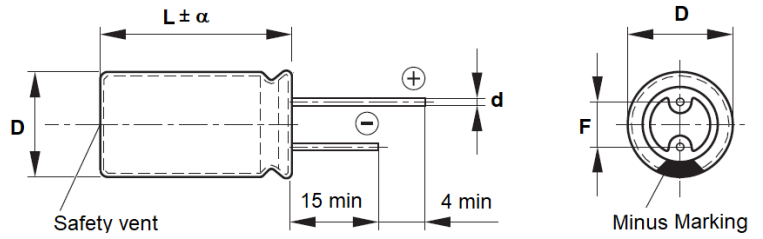
RE Series

MERITEK

### DIMENSION

Unit: mm

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



### RIPPLE CURRENT COEFFICIENTS

Working Voltage	Frequency Coefficient					
	60Hz	120Hz	400Hz	1KHz	10KHz	100KHz
10~16V	0.45	0.60	0.83	0.94	0.98	1.00
25~35V	0.38	0.50	0.75	0.90	0.97	1.00
50~100V	0.36	0.46	0.70	0.88	0.94	1.00

Temperature Coefficient	
°C	Factor
65°C	2.12
75°C	1.92
85°C	1.69
95°C	1.50
105°C	1.00

### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		10VDC (1A)			16VDC (1C)			25VDC (1E)		
		DxL	IMP	RC	DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
100	101	→	→	→	8x11	0.348	0.27	8x11	0.330	0.34
220	221	8x11	0.190	0.36	8x15	0.180	0.44	10x16	0.170	0.59
330	331	8x15	0.152	0.50	10x16	0.144	0.57	10x18	0.136	0.76
470	471	10x16	0.124	0.62	10x18	0.118	0.71	10x20	0.112	0.95
680	681	10x18	0.098	0.78	10x20	0.093	0.90	12.5x20	0.088	1.21
1000	102	10x20	0.080	1.00	12.5x20	0.076	1.16	12.5x25	0.072	1.62
2200	222	12.5x25	0.046	1.61	12.5x30	0.043	1.89	12.5x40	0.041	2.70
3300	332	12.5x30	0.038	2.00	12.5x40	0.036	2.44	16x40	0.034	3.04
4700	472	12.5x40	0.032	2.50	16x40	0.031	2.64	--	--	--

Capacitance		35VDC (1V)			50VDC (1H)		
		DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
47	470	--	--	→	8x11	0.453	0.29
68	680	8x11	0.374	0.30	8x15	0.352	0.39
100	101	8x15	0.311	0.40	10x16	0.292	0.49
220	221	10x18	0.161	0.66	10x20	0.151	0.80
330	331	10x25	0.129	0.93	12.5x20	0.121	1.04
470	471	12.5x20	0.105	1.07	12.5x25	0.099	1.37
680	681	12.5x25	0.083	1.42	12.5x30	0.078	1.79
1000	102	12.5x30	0.068	1.87	12.5x40	0.064	2.48
2200	222	16x40	0.039	2.83	--	--	--

# Aluminum Electrolytic Capacitors

## 105°C 2000~3000Hrs

RE Series

**MERITEK**

### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		63VDC (1J)			100VDC (2A)		
		DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
47	470	8x15	0.424	0.35	10x25	0.368	0.44
68	680	10x16	0.330	0.43	12.5x20	0.286	0.51
100	101	10x18	0.274	0.55	12.5x25	0.238	0.68
220	221	12.5x20	0.142	0.92	16x36	0.123	1.19
330	331	12.5x25	0.113	1.24	18x40	0.098	1.64
470	471	12.5x30	0.093	1.61	--	--	--
680	681	16x36	0.073	2.09	--	--	--

Note:

1. Max ripple current :A(rms) at 105°C. 100KHz
2. All blank voltage on sleeve marking is the same voltage as" →"point to.
3. Max impedance(Ω) at 25°C 100KHz

### PART NUMBERING SYSTEM

RE    1H    101    M    J    160    A    E  
 (1)    (2)    (3)    (4)    (5)    (6)    (7)    (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	RE	Aluminum Electrolytic Capacitors	High Ripple Current, Low ESR, 3000Hrs 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	J	J: 10 mm	See Table Below
(6)	Case Height	160	160: 16.0 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	E	E: 5.0 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

RE    50V    101    M    TA    1016  
 (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.