

Aluminum Electrolytic Capacitors



REL Series
(Long Life, Low Impedance)

MERITEK

FEATURES

- Low impedance, long life and high reliability with standing 5000 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 ~ 63VDC							
Capacitance Tolerance (120Hz 20°C)	± 20%(M)							
Leakage Current (20°C)	I ≤ 0.01CV or 3 (uA) * Whichever is greater after 2 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
	S.V.	8	13	20	32	44	63	79
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
	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09
Low Temperature Stability	Impedance ratio at 120Hz							
	Rated Voltage (V)	6.3	10	16	25	35	50	63
	-25°C / +20°C	2	2	2	2	2	2	2
	-40°C / +20°C	3	3	3	3	3	3	3
Load Life	After hours (φ5~6.3mm 2000hrs, φ8mm 3000hrs, φD ≥10mm 5000hrs) application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rated working voltage)							
	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 following limits. (with voltage treatment)							
	Capacitance Change	≤ ±20% of initial value.						
	Dissipation Factor	≤ 200% of initial specified value						
	Leakage Current	≤ 200% of initial specified value						

PART NUMBER SYSTEM

REL 6R3V 101 M TA 5x11

Meritek Series

Rated Voltage

Rated Capacitance

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

Tolerance

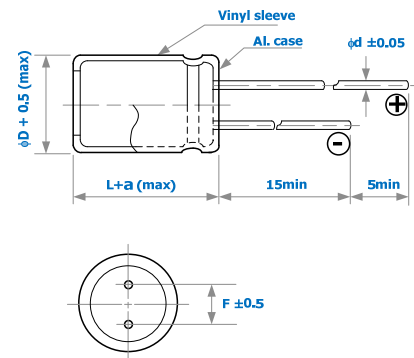
M - $\pm 20\%$

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
F	2.0	2.5	3.5	5.0	5.0	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8
a	1.5	1.5	1.5	1.5	1.5	1.5

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RIPPLE CURRENT COEFFICIENTS

Frequency(Hz)	60	120	400	1k	10k	100k
W.V.	Multiplier					
6.3~16V	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
50~63V	0.36	0.46	0.70	0.88	0.94	1.00

Temperature(°C)	65	75	85	95	105
Multiplier	2.12	1.92	1.69	1.50	1.00

CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)
 Max. impedance : Ω 20°C 100kHz
 Max. ripple current : A(rms) 105°C 100kHz

Cap. (uF)	V Item	6.3			10			16		
		DxL	IMP	R.C.	DxL	IMP	R.C.	DxL	IMP	R.C.
10								5x11	1.300	0.09
56								5x11	0.300	0.25
100		5x11	0.300	0.25	5x11	0.300	0.25	6.3x11	0.250	0.36
120		6.3x11	0.280	0.26	6.3x11	0.280	0.26	6.3x11	0.130	0.41
220		6.3x11	0.130	0.41	6.3x11	0.130	0.41	8x11.5	0.120	0.58
330		8x11.5	0.110	0.54	8x11.5	0.110	0.54	8x11.5	0.072	0.76
470		8x11.5	0.072	0.76	8x11.5	0.072	0.76	8x15	0.056	1.00
								10x12.5	0.053	1.03
680		8x15	0.056	1.00	8x15	0.056	1.00	8x20	0.041	1.25
		10x12.5	0.053	1.03	10x12.5	0.053	1.03	10x16	0.038	1.43
820		8x20	0.050	1.05	8x20	0.050	1.05	10x20	0.036	1.45
1000		8x20	0.041	1.25	8x20	0.041	1.25	10x20	0.023	1.82
		10x16	0.038	1.43	10x16	0.038	1.43			
1200		10x20	0.023	1.82	10x20	0.023	1.82	10x25	0.022	2.15
1500		10x25	0.022	2.15	10x25	0.022	2.15	12.5x20	0.021	2.36
2200		12.5x20	0.021	2.36	12.5x20	0.021	2.36	12.5x25	0.018	2.77
3300		12.5x25	0.018	2.77	12.5x25	0.018	2.77	12.5x35	0.015	3.40
3900		12.5x30	0.016	3.29	12.5x30	0.016	3.29	16x25	0.016	3.46
		16x20	0.018	3.14	16x20	0.018	3.14			
4700		12.5x35	0.015	3.40	12.5x35	0.015	3.40			
5600		16x25	0.016	3.46	16x25	0.016	3.46			

Cap. (uF)	V Item	25			35		
		DxL	IMP	R.C.	DxL	IMP	R.C.
10		5x11	1.030	0.13	5x11	0.800	0.17
33		5x11	0.500	0.21	5x11	0.300	0.25
47		5x11	0.300	0.25	6.3x11	0.280	0.27
56		5x11	0.280	0.26	6.3x11	0.130	0.41
100		6.3x11	0.130	0.41	8x11.5	0.125	0.50
120		6.3x15	0.130	0.49	8x11.5	0.120	0.59
150		8x11.5	0.110	0.54	8x11.5	0.072	0.76
220		8x11.5	0.072	0.76	8x15	0.056	1.00
					10x12.5	0.053	1.03
330		8x15	0.056	1.00	10x16	0.038	1.43
		10x12.5	0.053	1.03			

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CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)
Max. impedance : Ω 20°C 100kHz
Max. ripple current : A(rms) 105°C 100kHz

Cap. (uF)	V Item	25			35		
		DxL	IMP	R.C.	DxL	IMP	R.C.
470		8x20	0.041	1.25	10x20	0.023	1.82
		10x16	0.038	1.43			
560		10x20	0.036	1.50	10x25	0.022	2.15
680		10x20	0.023	1.82	12.5x20	0.021	2.36
820		10x25	0.022	2.15	12.5x20	0.020	2.45
1000		12.5x20	0.021	2.36	12.5x25	0.018	2.77
1200		12.5x20	0.019	2.46	12.5x30	0.016	3.29
					16x20	0.018	3.14
1500		12.5x25	0.018	2.77	12.5x35	0.015	3.40
1800		12.5x30	0.016	3.29	16x25	0.016	3.46
		16x20	0.018	3.14			
2200		12.5x35	0.015	3.40			

Cap. (uF)	V Item	50			63		
		DxL	IMP	R.C.	DxL	IMP	R.C.
22		5x11	0.340	0.24	6.3x11	0.726	0.22
33		6.3x11	0.320	0.28	6.3x15	0.564	0.30
47		6.3x11	0.310	0.34	8x11.5	0.453	0.38
56		6.3x11	0.140	0.39	8x11.5	0.404	0.42
100		8x11.5	0.074	0.72	10x16	0.264	0.54
120		8x15	0.061	0.95	10x16	0.220	0.73
150		10x12.5	0.061	0.98	10x16	0.187	0.80
180		8x20	0.046	1.19	10x20	0.153	0.90
220		10x16	0.042	1.37	10x25	0.133	1.08
330		10x25	0.028	1.87	12.5x20	0.113	1.33
470		12.5x20	0.027	2.05	12.5x25	0.091	1.66
560		12.5x25	0.023	2.41	16x25	0.074	2.19
680		12.5x30	0.021	2.86	16x25	0.059	2.24
820		12.5x35	0.019	2.96	16x31.5	0.054	2.72
		16x20	0.023	2.73			
1000		16x25	0.021	3.01	16x35.5	0.048	3.17