

Aluminum Electrolytic Capacitors

105°C 2000~5000Hrs

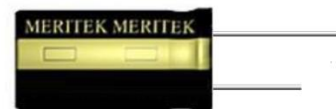
REL Series

MERITEK

FEATURE

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

Dia	5~6.3mm	8mm	≥10mm
Life	2000hrs	3000hrs	5000hrs



SPECIFICATIONS

Item	Characteristic							
Operation Temperature	-40°C ~ + 105°C							
Rated Working Voltage	6.3 ~ 63VDC							
Capacitance Tolerance	± 20% (M), at 120Hz 20°C							
Leakage Current At 20°C	I ≤0.01CV or 3 (μA) *Whichever is greater after 2 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
	Surge Voltage (V)	8	13	20	32	44	63	79
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	6.3	10	16	25	35	50	63
	tan δ max	0.22	0.19	0.16	0.14	0.12	0.10	0.09
	Add 0.02 per 1000 μF for more than 1000 μF							
Low Temperature Stability	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
	Impedance ratio at 120Hz							
Load Life	Capacitance Change	≤ ±25% of initial value			After working hours, Application of W.V. and +105°C ripple current, 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						
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						

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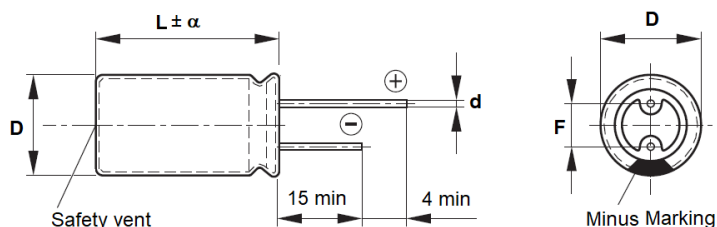
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DIMENSION

Unit: mm

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



RIPPLE CURRENT COEFFICIENTS

Working Voltage	Frequency Coefficient					
	60Hz	120Hz	400Hz	1KHz	10KHz	100KHz
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 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		6.3VDC (0J)			10VDC (1A)			16VDC (1C)		
		DxL	IMP	RC	DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
10	100	--	--	--	--	--	--	5x11	1.300	0.09
56	560	--	--	--	--	--	--	5x11	0.300	0.25
100	101	5x11	0.300	0.25	5x11	0.300	0.25	6.3x11	0.250	0.36
120	121	6.3x11	0.280	0.26	6.3x11	0.280	0.26	6.3x11	0.130	0.41
220	221	6.3x11	0.130	0.41	6.3x11	0.130	0.41	8x11	0.120	0.58
330	331	8x11	0.110	0.54	8x11	0.110	0.54	8x11	0.072	0.76
470	471	8x11	0.072	0.76	8x11	0.072	0.76	8x15	0.056	1.00
		--	--	--	--	--	--	10x12.5	0.053	1.03
680	681	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	821	8x20	0.050	1.05	8x20	0.050	1.05	10x20	0.036	1.45
1000	102	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	122	10x20	0.023	1.82	10x20	0.023	1.82	10x25	0.022	2.15
1500	152	10x25	0.022	2.15	10x25	0.022	2.15	12.5x20	0.021	2.36
2200	222	12.5x20	0.021	2.36	12.5x20	0.021	2.36	12.5x25	0.018	2.77
3300	332	12.5x25	0.018	2.77	12.5x25	0.018	2.77	12.5x35	0.015	3.40
3900	392	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	472	12.5x35	0.015	3.40	12.5x35	0.015	3.40	--	--	--
5600	562	16x25	0.016	3.46	16x25	0.016	3.46	--	--	--

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CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		25VDC (1E)			35VDC (1V)		
		DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
10	100	5x11	1.030	0.13	5x11	0.800	0.17
33	330	5x11	0.500	0.21	5x11	0.300	0.25
47	470	5x11	0.300	0.25	6.3x11	0.280	0.27
56	560	5x11	0.280	0.26	6.3x11	0.130	0.41
100	101	6.3x11	0.130	0.41	8x11	0.125	0.50
120	121	6.3x15	0.130	0.49	8x11	0.120	0.59
150	151	8x11	0.110	0.54	8x11	0.072	0.76
220	221	8x11	0.072	0.76	8x15	0.056	1.00
		--	--	--	10x12.5	0.053	1.03
330	331	8x15	0.056	1.00	10x16	0.038	1.43
		10x12.5	0.053	1.03	--	--	--
470	471	8x20	0.041	1.25	10x20	0.023	1.82
		10x16	0.038	1.43	--	--	--
560	561	10x20	0.036	1.50	10x25	0.022	2.15
680	681	10x20	0.023	1.82	12.5x20	0.021	2.36
820	821	10x25	0.022	2.15	12.5x20	0.020	2.45
1000	102	12.5x20	0.021	2.36	12.5x25	0.018	2.77
1200	122	12.5x20	0.019	2.46	12.5x30	0.016	3.29
		--	--	--	16x20	0.018	3.14
1500	152	12.5x25	0.018	2.77	12.5x35	0.015	3.40
1800	182	12.5x30	0.016	3.29	16x25	0.016	3.46
		16x20	0.018	3.14	--	--	--
2200	222	12.5x35	0.015	3.40	--	--	--

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CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		50VDC (1H)			63VDC (1J)		
		DxL	IMP	RC	DxL	IMP	RC
μF	Code	(mm)	(Ω)	A(rms)	(mm)	(Ω)	A(rms)
22	220	5x11	0.340	0.24	6.3x11	0.726	0.22
33	330	6.3x11	0.320	0.28	6.3x15	0.564	0.30
47	470	6.3x11	0.310	0.34	8x11	0.453	0.38
56	560	6.3x11	0.140	0.39	8x11	0.404	0.42
100	101	8x11	0.074	0.72	10x16	0.264	0.54
120	121	8x15	0.061	0.95	10x16	0.220	0.73
150	151	10x12.5	0.061	0.98	10x16	0.187	0.80
180	181	8x20	0.046	1.19	10x20	0.153	0.90
220	221	10x16	0.042	1.37	10x25	0.133	1.08
330	331	10x25	0.028	1.87	12.5x20	0.113	1.33
470	471	12.5x20	0.027	2.05	12.5x25	0.091	1.66
560	561	12.5x25	0.023	2.41	16x25	0.074	2.19
680	681	12.5x30	0.021	2.86	16x25	0.059	2.24
820	821	12.5x35	0.019	2.96	16x32	0.054	2.72
		16x20	0.023	2.73	--	--	--
1000	102	16x25	0.021	3.01	16x36	0.048	3.17

Note:

1. Max ripple current:A(rms) at 105°C. 100KHz

2. Max impedance(Ω) at 20°C 100KHz

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PART NUMBERING SYSTEM

REL 1H 101 M H 110 A D
(1) (2) (3) (4) (5) (6) (7) (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	REL	Aluminum Electrolytic Capacitors	Long Life, Low Impedance, 5000Hrs 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: 8.0 mm	See Table Below
(6)	Case Height	110	110: 11.0 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

REL 50V 101 M TA 0811
(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.