

Aluminum Electrolytic Capacitors

105°C 2000Hrs

HT Series

MERITEK

FEATURE

- Operating Temperature: -40°C ~ +105°C
- Load Life of 2000 Hours
- High Reliability, Wide Temperature Range
- Good Reliability Series for Communication Equipment and Industrial Measurement Instruments



SPECIFICATIONS

Item	Characteristic							
Operation Temperature	-40 ~ +105°C				-25 ~ +105°C			
Rated Working Voltage	6.3 ~ 100VDC				160~450VDC			
Capacitance Tolerance	±20% (M) +50% -10%(T); at 120Hz 20°C							
Leakage Current at 20°C	6.3 ~ 100VDC: I ≤ 0.01CV or 4 (μA) 160 ~ 450VDC: I ≤ 0.03CV + 40 (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
	Surge Voltage (V)	8	13	20	32	44	63	79
	Rated Voltage (V)	100	160	200	250	350	400	450
	Surge Voltage (V)	125	200	250	300	400	450	500
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	6.3	10	16	25	35	50	63
	tan δ max	0.20	0.17	0.15	0.12	0.10	0.09	0.09
	Rated Voltage (V)	100	160	200	250	350	400	450
	tan δ max	0.07	0.15	0.12	0.10	0.15	0.15	0.15
Add 0.02 per 1000 μF for more than 1000 μF								
Low Temperature Stability	Rated Voltage (V)	6.3	10~16	25~100	160~250	350~400	450	
	-25°C / +20°C	4	3	2	4	8	15	
	-40°C / +20°C	8	6	4	--	--	--	
Impedance ratio at 120Hz								
Load Life	Capacitance Change	≤ ±25% of initial value, for 6.3~16W.V; ≤ ±20% of initial value, for 25~450W.V				After 2000 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						
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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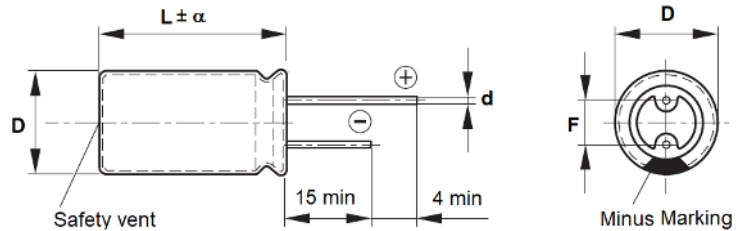
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DIMENSION

Unit: mm

D+0.5(max)	5	6.3	8	10	12.5	16	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

Working Voltage	Frequency Coefficient			
	60Hz	120Hz	1KHz	≥ 10KHz
6.3~25V	0.80	1.00	1.15	1.20
35~100V	0.75	1.00	1.30	1.40
160~450V	0.70	1.00	1.40	1.60

Temperature Coefficient	
°C	Factor
65°C	1.80
85°C	1.50
105°C	1.00

CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		6.3VDC (0J)		10VDC (1A)		16VDC (1C)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
47	470	--	--	→	→	5x11	85
100	101	6.3x11	120	6.3x11	130	6.3x11	140
220	221	6.3x11	180	6.3x11	190	8x11.5	240
330	331	8x11.5	260	8x11.5	280	10x12.5	310
470	471	8x11.5	310	8x11.5	330	10x12.5	370
1000	102	10x12.5	470	10x16	570	10x20	660
2200	222	10x20	810	12.5x20	930	12.5x25	1090
3300	332	12.5x20	1020	12.5x25	1200	16x25	1270
4700	472	12.5x25	1260	16x25	1350	16x31.5	1560
6800	682	16x25	1430	16x31.5	1660	18x35.5	1940
10000	103	16x31.5	1730	18x35.5	2030	18x40	2200
15000	153	18x35.5	2120	18x40	2310	--	--

Note:

1. Max ripple current :mA(rms) at 105°C. 120Hz
2. All blank voltage on sleeve marking is the same voltage as "→"point to.

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CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		25VDC (1E)		35VDC (1V)		50VDC (1H)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
0.47	R47	--	--	→	→	5x11	11
1	010	--	--	→	→	5x11	16
2.2	2R2	--	--	→	→	5x11	23
3.3	3R3	--	--	→	→	5x11	29
4.7	4R7	--	--	→	→	5x11	34
10	100	5x11	43	5x11	47	5x11	50
22	220	5x11	65	6.3x11	80	6.3x11	85
33	330	6.3x11	90	6.3x11	100	8x11.5	120
47	470	6.3x11	110	8x11.5	140	8x11.5	140
100	101	8x11.5	180	8x11.5	200	10x12.5	220
220	221	10x12.5	280	10x12.5	310	10x16	360
330	331	10x12.5	350	10x16	420	10x20	490
470	471	10x16	460	10x20	560	12.5x20	630
1000	102	12.5x20	790	12.5x25	960	16x25	1010
2200	222	16x25	1210	16x31.5	1440	18x35.5	1700
3300	332	16x31.5	1530	18x35.5	1840	18x40	2020
4700	472	18x35.5	1890	18x40	2100	--	--
6800	682	18x40	2170	--	--	--	--

Capacitance		63VDC (1J)		100VDC (2A)	
		DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)
0.47	R47	→	→	5x11	12
1	010	→	→	5x11	18
2.2	2R2	→	→	5x11	27
3.3	3R3	→	→	5x11	33
4.7	4R7	→	→	5x11	39
10	100	5x11	50	6.3x11	65
22	220	6.3x11	85	8x11.5	110
33	330	8x11.5	120	10x12.5	140
47	470	10x12.5	150	10x16	190
100	101	10x16	250	12.5x20	330
220	221	10x20	400	16x25	540
330	331	12.5x20	530	16x25	660
470	471	12.5x25	690	16x31.5	870
1000	102	16x31.5	1120	--	--

Note:

1. Max ripple current :mA(rms) at 105°C. 120Hz
2. All blank voltage on sleeve marking is the same voltage as "→"point to.

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CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		160VDC (2C)		200VDC (2D)		250VDC (2E)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
0.47	R47	6.3x11	13	6.3x11	14	6.3x11	15
1	010	6.3x11	19	6.3x11	20	8x11.5	26
2.2	2R2	6.3x11	28	6.3x11	30	8x11.5	38
3.3	3R3	8x11.5	40	8x11.5	43	10x12.5	49
4.7	4R7	8x11.5	48	10x12.5	55	10x12.5	60
10	100	10x12.5	75	10x16	90	10x20	110
22	220	10x20	140	10x20	140	12.5x20	170
33	330	12.5x20	180	12.5x20	190	12.5x25	220
47	470	12.5x25	230	12.5x25	250	16x25	270
100	101	16x25	340	16x31.5	400	16x35.5	460
220	221	18x35.5	630	18x40	710	--	--

Capacitance		350VDC (2V)		400VDC (2G)		450VDC (2W)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
1	010	10x12.5	19	10x12.5	20	10x18	20
2.2	2R2	10x16	32	10x18	35	12.5x20	33
3.3	3R3	10x20	43	12.5x20	48	12.5x25	45
4.7	4R7	12.5x20	55	12.5x20	55	16x25	55
10	100	12.5x25	85	12.5x25	90	16x31.5	85
22	220	16x31.5	140	16x31.5	150	16x35.5	140
33	330	18x35.5	200	18x35.5	210	18x40	190
47	470	18x40	250	18x40	260	--	--

Note:

1. Max ripple current :mA(rms) at 105°C. 120Hz

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PART NUMBERING SYSTEM

HT 1H 101 M J 125 A E
(1) (2) (3) (4) (5) (6) (7) (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	HT	Aluminum Electrolytic Capacitors	Wide Temperature, 2000Hrs 105°C
(2)	Rated Voltage Code	1H	50V: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	125	125: 12.5 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

HT 50V 101 M TA 1012
(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.