

# Aluminum Electrolytic Capacitors 1K~4KHrs 130°C High Temperature

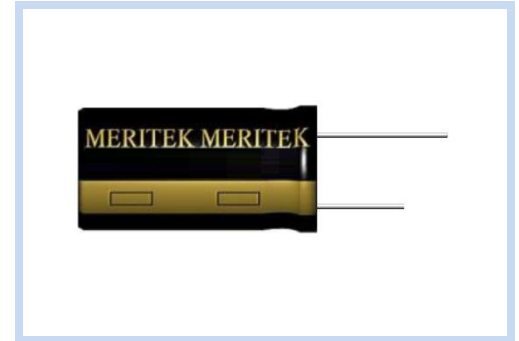
WTH Series

MERITEK

## FEATURE

- Operating Temperature: -40°C ~ +130°C
- Applicable for Electronic Ballast, Lighting Ballast
- Load Life of up to 4000 Hours at +130°C

Dia	5~6.3mm	8~10mm	≥12.5mm
Life	1000hrs	2000hrs	4000hrs



## SPECIFICATIONS

Item	Characteristic						
Operation Temperature	-40°C ~ + 130°C						
Rated Working Voltage	10 ~ 50VDC						
Capacitance Tolerance	±20% (M) at 120Hz 20°C						
Leakage Current at 20°C	I = 0.03CV or 4 (μA) *Whichever is greater after 1 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	--
	Surge Voltage (V)	13	20	32	44	63	--
Dissipation Factor- tan δ	Rated Voltage (V)	10	16	25	35	50	--
	tan δ max	0.20	0.16	0.14	0.12	0.10	--
Add 0.02 per 1000 μF for more than 1000 μF; at 120Hz 20°C							
Low Temperature Stability	Rated Voltage (V)	10	16	25	35	50	--
	-25°C / +20°C	3	2	2	2	2	--
	-40°C / +20°C	6	4	4	4	4	--
Impedance ratio at 120Hz							
Load Life	Capacitance Change	≤ ±30% of initial value		After working hours application of W.V. at +130°C, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)			
	Dissipation Factor	≤ 300% of initial value					
	Leakage current	≤ initial specified value					
		Dia	5~6.3mm	8~10mm	≥12.5mm		
		Life	1000hrs	2000hrs	4000hrs		
Shelf Life	At + 130°C no voltage application after 1000 hours. the capacitors shall meet the limits for load life characteristics. (With voltage treatment)						

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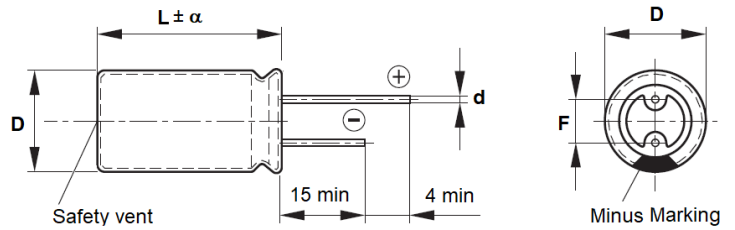
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## DIMENSION

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	2.0	2.0	2.0



## RIPPLE CURRENT COEFFICIENTS

Working Voltage	Capacitance	Frequency Coefficient			
		120Hz	1KHz	10KHz	≥ 100KHz
10~50WV	22~47μF	0.55	0.75	0.90	1.00
	68~330μF	0.70	0.85	0.95	1.00
	470~1500μF	0.75	0.90	0.98	1.00
	2200~4700μF	0.80	0.95	1.00	1.00

Temperature Coefficient	
°C	Factor
≤ 70°C	1.9
85°C	1.75
105°C	1.40
130°C	1.00

## CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		10VDC (1A)		16VDC (1C)		25VDC (1E)		35VDC (1V)	
		DxL	RC	DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
47	470	--	--	--	--	5x11	130	--	--
68	680	--	--	--	--	6.3x11	170	--	--
100	101	--	--	--	--	--	--	8x11	360
220	221	--	--	--	--	8x11	360	10x12.5	620
330	331	8x11	360	8x11	360	10x12.5	620	10x16	800
470	471	10x12.5	620	10x12.5	620	10x20	800	10x20	960
1000	102	10x20	960	10x20	960	12.5x25	1100	10x12.5	1430
2200	222	12.5x25	1430	12.5x25	1430	16x30	2300	16x35	2550
3300	332	16x25	1900	16x30	2300	16x35	2500	18x35	2800
4700	472	16x30	2300	16x35	2550	--	--	--	--

Note: Max ripple current :mA(rms) at 130°C. 100KHz

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### CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		50VDC (1H)	
		DxL	RC
μF	Code	(mm)	mA(rms)
22	220	5x11	200
33	330	6.3x11	250
47	470	8x11	300
		6.3x12	260
100	101	10x12.5	520
220	221	10x20	890
330	331	12.5x20	1000
470	471	12.5x25	1200
1000	102	16x30	2180
2200	222	18x40	2800

Note: Max ripple current :mA(rms) at 130°C. 100KHz

### PART NUMBERING SYSTEM

WTH (1)    1H (2)    220 (3)    M (4)    E (5)    110 (6)    A (7)    B (8)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	WTH	Aluminum Electrolytic Capacitors	High Temperature 130°C, up to 4000Hrs
(2)	Rated Voltage Code	1H	50V:50V	DC working voltage, See Table Below
(3)	Capacitance	220	220:22μF	First two digit: significant, Third: Multiplier
(4)	Tolerance	M	M: ± 20%	-20% ~ +20%
(5)	Case Diameter Code	E	E: 5 mm	See Table Below
(6)	Case Height	110	110: 11 mm	Third digit denotes the first decimal place
(7)	Package	A	A: Tape & Ammo	R: Tape & Reel, Blank : Bulk
(8)	Taping Pitch Code	B	B: 2.0 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

\*Specifications subject to change without notice.