

# Aluminum Electrolytic Capacitors

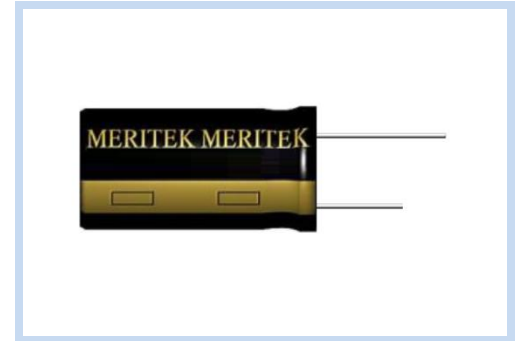
## 2000~5000Hrs 125°C Long Life

WTD Series

MERITEK

### FEATURE

- Operating Temperature: -40°C ~ +125°C
- Load Life of 2000 ~ 5000 Hours at +125°C
- Applicable for Electronic Ballast, Lighting Ballast



### SPECIFICATIONS

Item	Characteristic							
Operation Temperature	-40°C ~ + 125°C							
Rated Working Voltage	10 ~ 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)	10	16	25	35	50	63	
	Surge Voltage (V)	13	20	32	44	63	79	
Dissipation Factor-tan δ At 120Hz 20°C	Rated Voltage (V)	10	16	25	35	50	63	
	tan δ max	0.19	0.16	0.14	0.12	0.14	0.14	
Add 0.02 per 1000 μF for more than 1000 μF								
Low Temperature Stability Impedance ratio at 120Hz	Rated Voltage (V)	10	16	25	35	50	63	
	-25°C / +20°C	3	2	2	2	2	2	
	-40°C / +20°C	6	4	4	4	4	3	
Load Life	Capacitance Change	≤ ±30% of initial value					After hours application of W.V. and +125°C , the capacitor shall meet the following limits.	
	Dissipation Factor	≤ 300% of initial specified value						
	Leakage current	≤ initial specified value						
		<b>Dia</b>	<b>8mm</b>	<b>10mm</b>	<b>≥12.5mm</b>			
		<b>Life</b>	2000hrs	3000hrs	5000hrs			
Shelf Life	Capacitance Change	≤ ±30% of initial value					At + 125°C no voltage application after 1000 hours the capacitor shall meet the following limits. (with voltage treatment)	
	Dissipation Factor	≤ 300% of initial specified value						
	Leakage current	≤ 500% of initial specified value						

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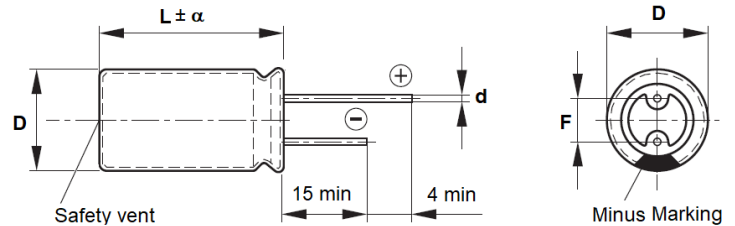
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## DIMENSION

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	Capacitance	Frequency Coefficient			
		120Hz	1KHz	10KHz	50~100KHz
10~63WV	CAP ≤ 10	0.40	0.75	0.90	1.00
	10 < CAP ≤ 100	0.50	0.85	0.95	1.00
	100 < CAP ≤ 1000	0.60	0.85	0.96	1.00
	1000 < CAP	0.75	0.90	0.98	1.00
10~63WV	CAP ≤ 33	1.00	1.50	1.75	1.80
	CAP ≤ 47	1.00	1.30	1.40	1.50

Temperature	Coefficient
°C	Factor
≤ 70°C	1.90
85°C	1.75
105°C	1.40
125°C	1.00

## CASE SIZE AND MAX RIPPLE CURRENT

Capacitance		10VDC (1A)		16VDC (1C)		25VDC (1E)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
100	101	--	--	--	--	8x11	340
220	221	8x11	340	8x11	340	10x12.5	500
330	331	10x12.5	500	10x12.5	500	10x16	630
470	371	10x16	630	10x20	770	10x20	770
1000	102	10x20	770	12.5x20	920	12.5x25	1250
2200	222	12.5x25	1250	16x25	1380	16x32	1450
3300	332	16x25	1380	16x32	1450	--	--
4700	472	16x32	1450	16x32	1720	--	--

Capacitance		35VDC (1V)		50VDC (1H)		63VDC (1J)	
		DxL	RC	DxL	RC	DxL	RC
μF	Code	(mm)	mA(rms)	(mm)	mA(rms)	(mm)	mA(rms)
47	470	--	--	8x11	245	8x11	245
100	101	10x12.5	340	10x12.5	415	10x15	455
220	221	10x16	500	10x20	491	12.5x20	665
330	331	10x20	770	12.5x20	665	12.5x25	995
470	471	12.5x20	920	12.5x25	995	16x25	1000
1000	102	16x25	1380	16x32	1280	--	--

Note:

1. Max ripple current :mA(rms) at 125°C. 100KHz

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## PART NUMBERING SYSTEM

$\frac{\text{WTD}}{(1)}$      $\frac{1\text{H}}{(2)}$      $\frac{221}{(3)}$      $\frac{\text{M}}{(4)}$      $\frac{\text{J}}{(5)}$      $\frac{200}{(6)}$      $\frac{\text{A}}{(7)}$      $\frac{\text{E}}{(8)}$

No	Item	Code	Description	Series Reference
(1)	Meritek Series	WTD	Aluminum Electrolytic Capacitors	Long Life, up to 2000~5000Hrs at 125°C
(2)	Rated Voltage Code	1H	50V:50V	DC working voltage, See Table Below
(3)	Capacitance	221	221:220μF	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	200	200: 20 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

\*Specifications subject to change without notice.