Aluminum Electrolytic Capacitors

RoHS

WT Series
(125°C,High Temperature)

MERITEK

FEATURES

- High reliability withstanding 2000 hours load life at 125°C.

SPECIFICATIONS

Item	Characteristic						
Operating Temp Range	- 40 ~ +125°C						
Rated Working Voltage	10 ~ 50VDC						
Capacitance Tolerance (120Hz 20°C)	± 20%(M)						
Leakage Current (20°C)	I ≤ 0.01CV or 2 (μA) ∗**Whichever is greater after 2 minutes**					**I : Leakage Current (μA)** **C : Rated Capacitance(μF)** **V : Working Voltage (V)**	
Surge Voltage (20°C)	**W.V.**	**10**	**16**	**25**	**35**	**50**	
	S.V.	13	20	32	44	63	
Dissipation Factor (tan δ) (120Hz 20°C)	**W.V.**	**10**	**16**	**25**	**35**	**50**	
	tan δ	0.20	0.16	0.14	0.12	0.10	
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated Voltage (V)	**10**	**16**	**25**	**35**	**50**	
	-25°C / +20°C	3	2	2	2	2	
	-40°C / +20°C	8	6	4	4	4	
Load Life	**After 2000 hours application of W.V. and +125°C ripple current value** , the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rated working voltage)						
	Capacitance Change	≤ ±25% of initial.					
	Dissipation Factor	≤ 200% of initial specified value					
	Leakage Current	≤ initial specified value					
Shelf Life	At +125°C no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (with voltage treatment)						

PART NUMBER SYSTEM

WT 25V 331 M TA 10x16

Meritek Series

Rated Voltage

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

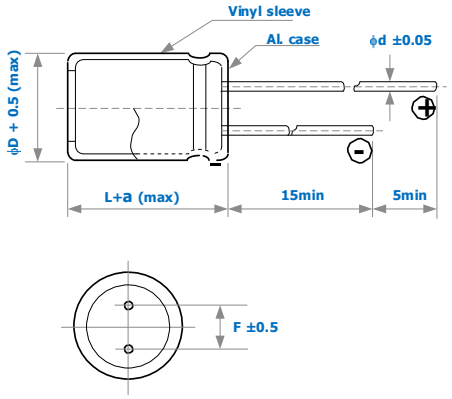
Tolerance
M - ±20%

Package

Code	TA	TR	Blank
	Tape & Ammo	Tape & Reel	

Case size – (D) Diameter x (L) Length in mm (Optional)

DIMENSIONS (mm)



ϕD	6.3	8	10	12.5
F	2.5	3.5	5.0	5.0
d	0.5	0.6	0.6	0.6
a	1.5	1.5	1.5	1.5

CASE SIZE & MAX RIPPLE CURRENT

Case size : DxL (mm)
Max. ripple current : mA(rms) 125°C 120Hz

Cap. (uF)	V / Item	10		16		25	
		DxL	R.C.	DxL	R.C.	DxL	R.C.
22					→	6.3x11	70
33			→	6.3x11	75	8x11.5	110
47		6.3x11	80	6.3x11	90	8x11.5	130
100		6.3x11	120	8x11.5	170	8x11.5	230
220		8x11.5	230	10x12.5	330	10x12.5	460
330		10x12.5	360	10x12.5	400	10x16	620
470		10x12.5	430	10x16	530	10x20	820
1000		10x20	760	12.5x20	970	12.5x25	1170

Cap. (uF)	V / Item	35		50	
		DxL	R.C.	DxL	R.C.
10				8x11.5	70
22		8x11.5	100	8x11.5	110
33		8x11.5	120	8x11.5	130
47		8x11.5	140	8x11.5	150
100		10x12.5	270	10x12.5	290
220		10x16	530	10x20	590
330		10x20	720	12.5x20	900
470		12.5x20	970	12.5x25	960

All blank voltage on sleeve marking is the same voltage as "→" point to.

TAPING SPECIFICATION

- Lead taping is designed for automatic insertion equipment.
- Capacitors with case size of 18mm x 35.5mm or smaller are available in taping type.

DIMENSIONS (Ø4~ Ø10)

Item	Symbol	Case Size														Tolerance	Remark
		4 x 5	5 x 5	6.3x5	8 x 5	4 x 7	5 x 7	6.3x7	8 x 7	5 x 11	6.3x11	8 x 11.5	10x12.5	10x16	10x18	10x20	
Lead wire diameter	d	0.45							0.5			0.6					±0.05	
Body height	A	6.0				8.0				12.5		13	14	17.5	19.5	21.5	MAX	
Intervals of bodies	P	12.7															±1.0	
Intervals of punched holes	P_0	12.7															±0.2	
Distance between holes and lead wire	P_1	3.85															±0.7	Fig 1. Fig 4.
		5.35	5.1	5.1			5.35	5.1	5.1			5.1						Fig 2.
		5.6		5.35	5.1	5.1	5.6		5.35	5.1	4.6	5.35	5.1	4.6				Fig 3.
Distance between holes and bodies	P_2	6.35															±1.0	
Distance between lead and lead	F	5.0															+0.8 -0.2	Fig 1. Fig 4.
		2.0	2.5	2.5			2.0	2.5	2.5			2.5						Fig 2. F_1:5.0 $^{+0.5}$
		1.5		2.0	2.5	2.5	1.5		2.0	2.5	3.5	2.0	2.5	3.5				Fig 3. F_1:5.0 $^{+0.5}$
Base tape width	W	18.0															±0.5	
Adhesive tape width	W_0	12.5															MIN	
Deviation between holes and base tape	W_1	9.0															±0.5	
Deviation between adhesive and base tape	W_2	1.5															MAX	
Distance between body bottom and tape center	H	17.5								18.5		20.0	18.5				±0.5	Fig 1. Fig 4.
		17.5								18.5		18.5						Fig 2. Fig 3.
Lead wire clinched height	H_0	16.0															±0.5	
Distance between body top and tape center	H_1	24.5				27.5				32.5			33.0	36.0	38.0	41.0	MAX	
Punched hole diameter	D_0	4.0															±0.3	
Length of not good lead slit	L	11.0															MAX	
Base and adhesive tape thickness	t	0.6															±0.3	
Deviation of body alignment	Δh	0															±2.0	
Deviation of body alignment	Δh_1	0															±1.0	

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DIMENSIONS (Ø12.5~ Ø18)

Item	Symbol	Case Size							Tolerance	Remark
		12.5 x 20	12.5 x 25	12.5 x 30	16 x 25	16 x 31.5	16 x 35.5	18 x 35.5		
Lead wire diameter	d	0.6			0.8				±0.05	
Body height	A	21.5	26.5	31.5	26.5	33	37.0	37.0	MAX	
Intervals of bodies	P	15.0			30.0				±1.0	Fig 5. Fig 6.
Intervals of punched holes	P_0	15.0							±0.2	
Distance between holes and lead wire	P_1	5.0			3.75				±0.7	
Distance between holes and bodies	P_2	7.5							±1.0	
Distance between lead and lead	F	5.0			7.5				+0.8 -0.2	
Base tape width	W	18.0							±0.5	
Adhesive tape width	W_0	15.0							MIN	
Deviation between holes and base tape	W_1	9.0							±0.5	
Deviation between adhesive and base tape	W_2	1.5							MAX	
Distance between body bottom and tape center	H	16.5			18.5				±0.5	Fig 5. Fig 6.
Distance between body top and tape center	H_1	40.5	45.5	50.5	46.5	53.5	56.5	56.5	MAX	
Punched hole diameter	D_0	4.0							±0.3	
Length of not good lead slit	L	11.0							MAX	
Base and adhesive tape thickness	t	0.6							±0.3	
Deviation of body alignment	Δh	0							±2.0	
Deviation of body alignment	Δh_1	0							±1.0	

Fig 1. (φ4~φ8)

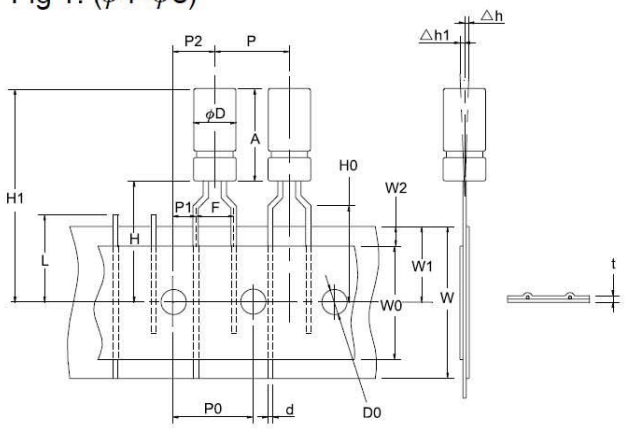


Fig 2. (φ4~φ5)

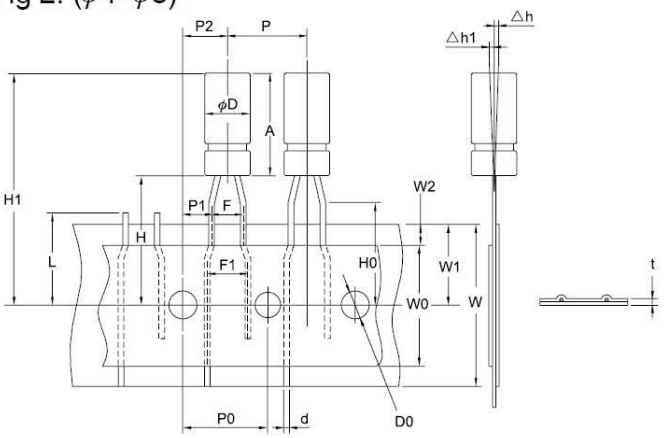


Fig 3. (φ4~φ8)

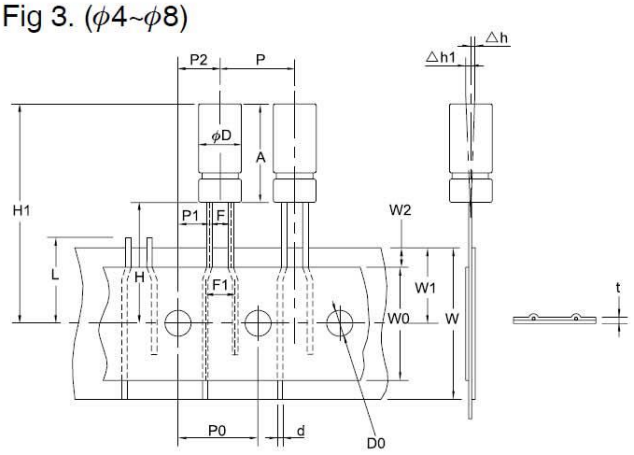


Fig 4. (φ10)

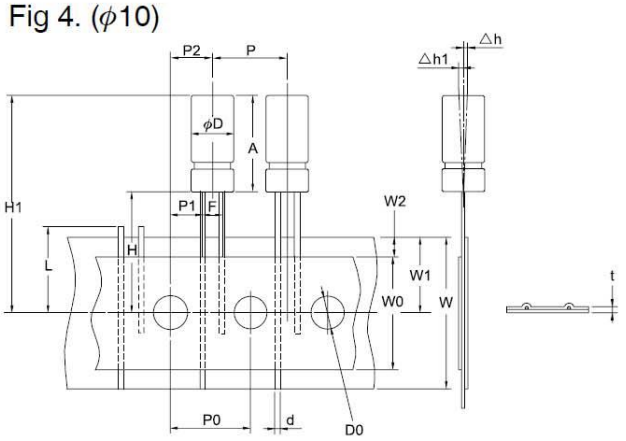


Fig 5. (φ12.5)

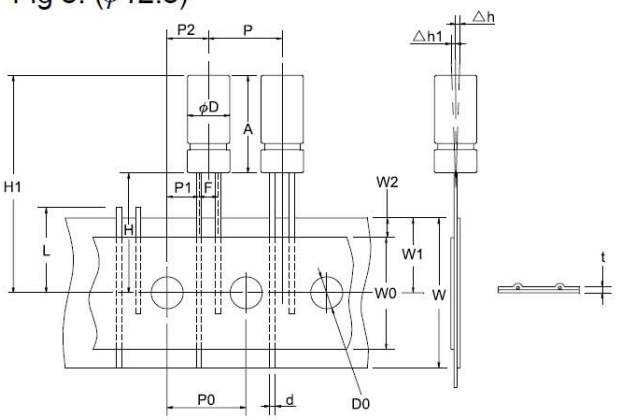
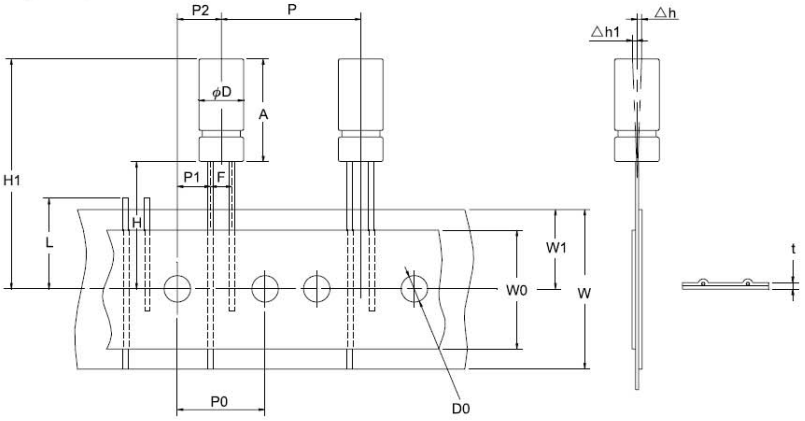


Fig 6. (φ16~18)



SOLDERABILITY

Capacitor lead wire is dipping into the oven, and then, dipping in 245±3℃, solder liquid for 3±0.5 seconds, the substance is above the liquid solder 2mm, the dipping lead must be adherent 95% fresh tin at least.

RESISTANCE TO SOLDERING HEAT

Put capacitor lead wire to dip 260±5℃ in solder liquor away the body 2mm, after 10±1 seconds taken out, after 2 hours in room temperature, should do final measurements, the values are following:

(A) Capacitance change: ≦ ±10% of initial value

(B) Dissipation factor: ≦ initial specified value

(C) Leakage current: ≦ initial specified value

(D) Visual: No damage