Surface Mount Aluminum Electrolytic Capacitors

RoHS

SNP Series
(Non Polarity, 85°C)

MERITEK

FEATURES

- Height : 5.4mm
- Load life : 85°C 2000 hours
- Non polarity series using in polarity circuits

SPECIFICATIONS

Item	Characteristic						
Operation Temperature Range	-40 ~ +85°C						
Rated Working Voltage	6.3 ~ 50VDC						
Capacitance Tolerance (120Hz 20°C)	±20%(M)						
Leakage Current (20°C)	I ≤0.05CV or 10 (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.	6.3	10	16	25	35	50
	S.V.	8	13	20	32	44	63
Dissipation Factor (tan δ) (120Hz 20°C)	W.V.	6.3	10	16	25	35	50
	tan δ	0.26	0.22	0.20	0.20	0.20	0.18
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated Voltage (V)	6.3	10	16	25	35	50
	-25°C / +20°C	4	3	2	2	2	2
	-40°C / +20°C	8	6	4	4	3	3
Load Life	After 2000 hours application of W.V. and +85°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage) (The polarity need to exchange every 250 hours)						
	Capacitance Change	≤ ±25% of initial value					
	Dissipation Factor	≤ 200% of initial specified value					
	Leakage current	≤ initial specified value					
Shelf Life	At +85°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)						
Resistance to Soldering Heat	Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature.						
	Capacitance Change	≤ ±10% of initial value					
	Dissipation Factor	≤ initial specified value					
	Leakage current	≤ initial specified value					

PART NUMBERING SYSTEM

SNP 50V 470 M F 054

Meritek Series

Voltage

Capacitance
Capacitance expressed in microfarads (μF).
First two digits are significant figures.
Third digit denotes number of zeros.
'R' denotes decimal point for values less than 10 μF

Tolerance
M=±20%

Case Diameter Code

Case Height (mm)
The third digit denotes the first decimal place
For example, 054 = 5.4mm

Case Diameter Code	Φ D
D	Φ 4.0
E	Φ 5.0
F	Φ 6.3

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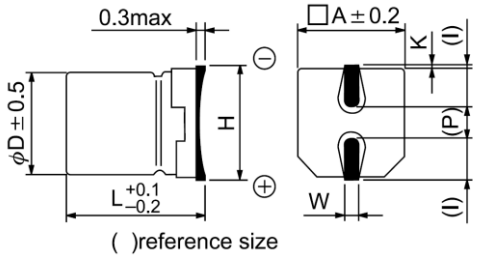
DIMENSIONS (mm)

Φ D	L	A	H	I	W	P	K
Φ 4.0	5.4	4.3	5.5MAX	1.8	0.65±0.1	1.0	0.35 $^{+0.15}_{-0.20}$
Φ 5.0	5.4	5.3	6.5MAX	2.2	0.65±0.1	1.5	0.35 $^{+0.15}_{-0.20}$
Φ 6.3	5.4	6.6	7.8MAX	2.6	0.65±0.1	2.1	0.35 $^{+0.15}_{-0.20}$



CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max ripple current : mA(rms) 85°C 120Hz

Cap. (uF)	V	6.3		10		16		25		35		50	
	Item	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.
0.1	0R1											4x5.4	2
0.22	R22											4x5.4	3
0.33	R33											4x5.4	4
0.47	R47											4x5.4	5
1.0	010											4x5.4	7
2.2	2R2									4x5.4	10	5x5.4	12
3.3	3R3							5x5.4	13	5x5.4	14	5x5.4	14
4.7	4R7					4x5.4	14	5x5.4	16	5x5.4	17	6.3x5.4	19
10	100			4x5.4	19	5x5.4	23	6.3x5.4	27	6.3x5.4	28		
22	220	5x5.4	29	6.3x5.4	36	6.3x5.4	39						
33	330	6.3x5.4	41	6.3x5.4	45	6.3x5.4	48						
47	470	6.3x5.4	49										

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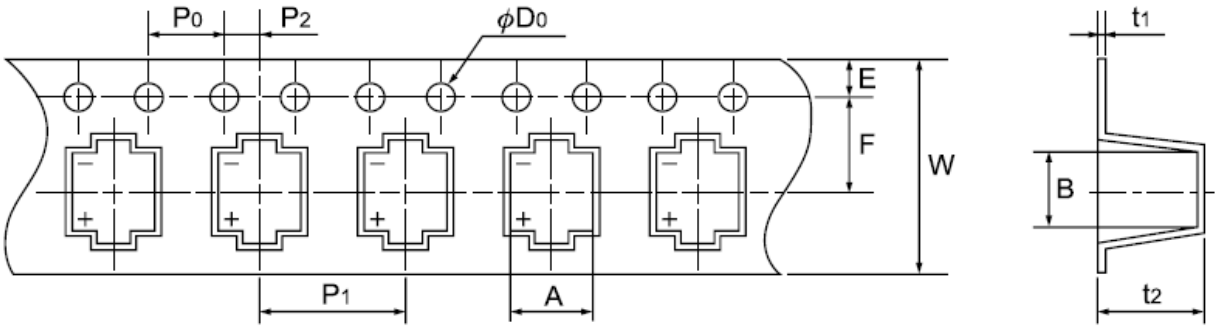
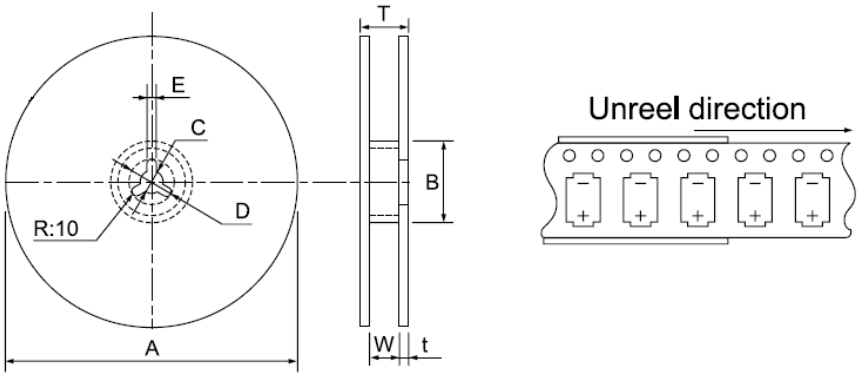
TAPING



D x L	W ±0.3	A ±0.2	B ±0.2	P_0 ±0.1	P_1 ±0.1	P_2 ±0.1	F ±0.1	$ØD_0$ ±0.1	t_1 ±0.1	E ±0.1	t_2 ±0.2
Ø4x5.4	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	5.7
Ø5x5.4	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	5.7
Ø6.3x5.4	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	5.7
Ø4x5.8	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	6.3
Ø5x5.8	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	6.4
Ø6.3x5.8	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.4
Ø6.3x7.7	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	8.2
Ø8x6.2	16.0	8.7	8.7	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.8
Ø8x10.2	24.0	8.7	8.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0
Ø10x10.2	24.0	10.7	10.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0

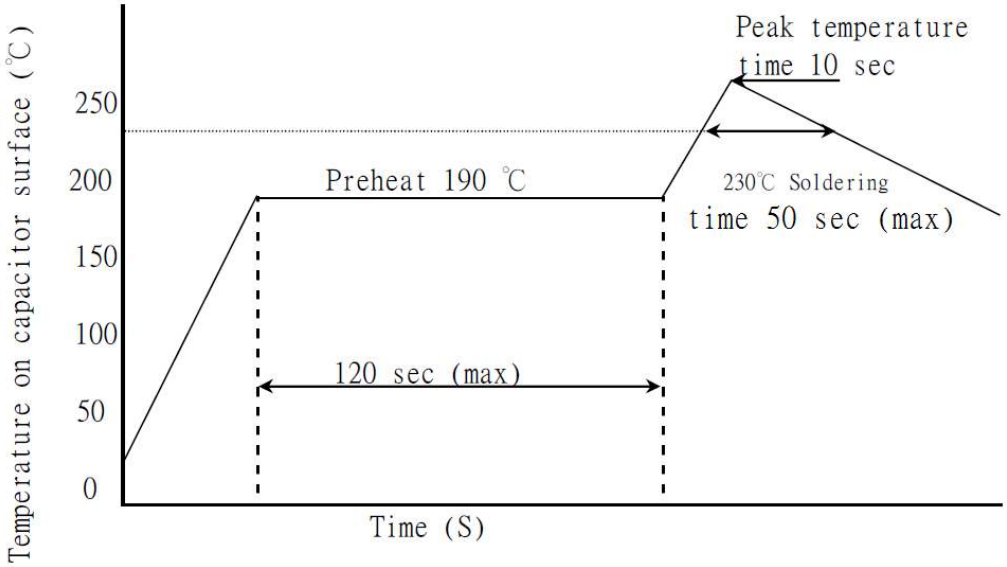
PACKAGE



D x L	A ±2.0	B MIN	C ±0.5	D ±0.8	E ±0.5	W ±1.0	T ±1.0	t ±0.5
Ø4 Ø5	380	50	13	21	2.0	14.0	20.0	3.0
Ø6.3	380	50	13	21	2.0	18.0	24.0	3.0
Ø8x6.2	380	50	13	21	2.0	18.0	24.0	3.0
Ø8x10.2	380	50	13	21	2.0	26.0	32.0	3.0
Ø10x10.2	380	50	13	21	2.0	26.0	32.0	3.0

PERMISSBLE REFLOW CONDITION

AIR REFLOW AND IR REFLOW



Preheat: Within 120sec., 190°C or less.
Soldering Time: Within 50 sec., 230°C
Peak Temperature: Less than 250°C, within 10 sec.
Possible Reflow Cycle: 2 Cycles
The final test values should be as following:

(A) Capacitance change: ≦ ±10% of initial value
(B) Dissipation factor: ≦ initial specified value
(C) Leakage current: ≦ initial specified value
(D) Visual: No damage