

# ALUMINUM ELECTROLYTIC CAPACITORS

Suntan®

CHIP TYPE SERIES

# TS13CR

## FEATURES

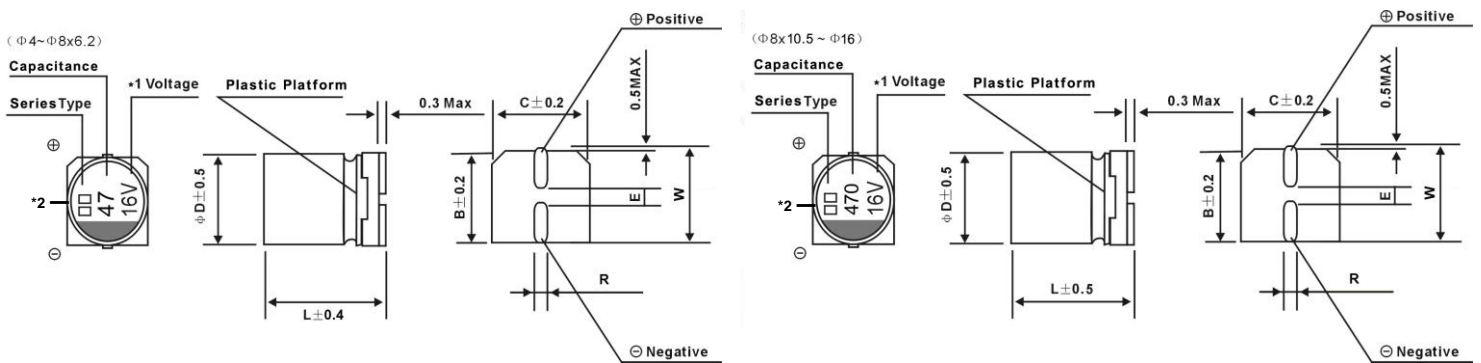
- 105°C 2,000 to 3,000hours
- Solvent proof (within 2 minutes)



## ◆ Specifications

ITEMS PERFORMANCE CHARACTERISTICS									
Rated Voltage (V)	-	6.3	10	16	25	35	50		
Surge Voltage (V)	Room temperature	8.0	13	20	32	44	63		
Category Temperature Range (°C)	-	-55 to +105							
Capacitance Tolerance (%)	120Hz/20°C	M : ±20							
Dissipation Factor (Tan δ)	tanδ (max) 120Hz/20°C	Φ4 to Φ6.3	0.30	0.24	0.22	0.20	0.18	0.16	
		Φ8 to Φ10	0.32	0.26	0.24	0.22	0.20	0.18	
		Exceeding 1,000μF, +0.02 every 1,000μF							
Leakage Current (LC)	μA/after 2minutes (max)	The greater value of either 0.01CV or 3μA							
Impedance Ratio at Low Temperature	Based on the value at 120Hz, +20°C	-25°C	Z/Z20°C	4	3	2	2	2	2
		-55°C	Z/Z20°C	8	6	4	3	3	3
Endurance	105°C 2,000hours rated voltage applied (With the rated ripple current)	Test	6.3V.DC : 3,000hours, Φ8×10.5 and Φ10×10.5 : 3,000hours						
		ΔC/C	Within ±30% of the initial value						
		tanδ	Less than 300% of the specified value						
		LC	Less than the specified value						

## ◆ Chip type



\*3 [L±0.5] is applicable to Φ8×10.5~Φ10 ; \*4 [L±1.0] is applicable to Φ12.5~Φ16.

\*1 Voltage mark for 6.3V is [6V] or [6.3V]

Re: Date code and series type-  
1<sup>st</sup> digit for ear;  
2<sup>nd</sup> digit for Quarter, 4 quarter codes in one year are 1.4.7.0;  
3<sup>rd</sup> character for Series, TS13CA series=F

\*2 Markings: SuR, SR, RT

ΦDxL	4x5.4	5x5.4	6.3x5.4	6.3x7.7	8x6.5	8x10.5	10x10.5
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3
E±0.2	1.0	1.3	2.	2.2	3.1	3.1	4.4
L	5.4	5.4	5.4	7.7	6.5	10.5	10.5
R	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.7 to 1.2	0.7 to 1.2	0.7 to 1.2
W	5.1	6.1	7.3	7.3	9.2	9.2	11.2

# TS13CR

◆ Standard size & Maximum permissible ripple current & Impedance

VV Cap/uF		6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
10	100											4x5.8 (5x5.8)	30 (55)
22	220									4x5.8	55	5x5.8	55
33	330							4x5.8	60	5x5.8	85		
47	470					4x5.8	60	5x5.8	95	5x5.8	95	6.3x5.8	75
68	680			4x5.8	60	5x5.8	95	5x5.8	95	6.3x5.8	120		
100	101	4x5.8	60			5x5.8	95	6.3x5.8	120	6.3x5.8	120	6.3x7.7	140
150	151			5x5.8	95	6.3x5.8	120	6.3x7.7	240	6.3x7.7	240		
220	221	5x5.8	95	6.3x5.8	180	6.3x5.8	180	6.3x7.7	360			8x10.5	400
330	331	6.3x5.8	180	6.3x7.7	360	6.3x7.7	360			8x10.5	510	10x10.5	270
390	391							8x10.5	510	8x10.5	510		
470	471	6.3x7.7	360	6.3x7.7	360	8x6.5	360	8x10.5	510				
560	561							8x10.5	510	10x10.5	660		
680	681	6.3x7.7	360			8x10.5	510			10x10.5	710		
820	821					8x10.5	510	10x10.5	710				
1000	102			8x10.5	510	10x10.5	710	10x10.5	710				
1200	122					10x10.5	710						
1500	152	8x10.5	510	10x10.5	710								Ripple
2200	222	10x10.5	710									Case size	Current

Case size: ΦDxL (mm)

Rated ripple current mArms (120Hz, 105°C)

◆ Frequency coefficient Factor of Rated Ripple current

Frequency:F(Hz)		100≤F<1k	1k≤F<10k	10k≤F<100k	100k≤F
		Capacitance:C (μF)	C≤ 100	1.00	1.30
100<C≤ 330	1.00		1.20	1.30	1.45
330<C	1.10		1.10	1.20	1.30

Note: Specification are subject to change without notice. For more detail and update, please visit our website.