

# ALUMINUM ELECTROLYTIC CAPACITORS

Suntan®

CHIP TYPE SERIES

# TS13CY

## FEATURES

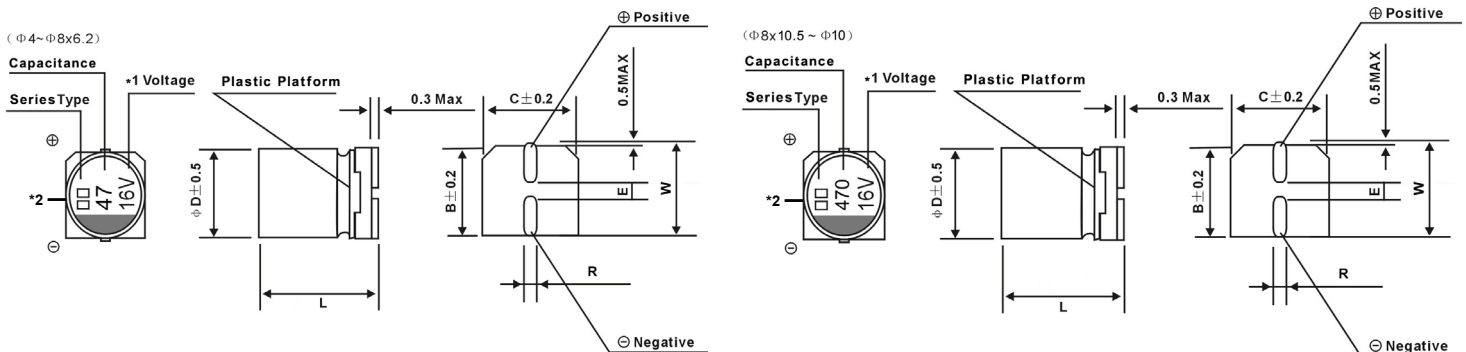
- Endurance : 105°C 2000H
- High rated ripple current, Extra Low Impedance
- Designed for reflow soldering
- Designed for surface mounting on high-density PCB



## ◆ Specifications

ITEMS		PERFORMANCE CHARACTERISTICS							
Rated Voltage (V)	-	6.3	10	16	25	35	50		
Surge Voltage (V)	Room temperature	7.3	11.5	18.4	28.8	40.3	57.5		
Category Temperature Range (°C)	-	-55 to +105							
Capacitance Tolerance (%)	120Hz/20°C	M : ±20							
Dissipation Factor (Tanδ)	tanδ (max) 120Hz/20°C	0.32	0.21	0.18	0.14	0.12	0.10		
Leakage Current (LC)	µA/after 2minutes (max)	I ≤ 0.01 CV or 3 µA whichever is greater							
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	5	4	3	3	3
Endurance	After applying rated working voltage for 2000H at +105 °C ± 2 °C, and then being stabilized at +20 °C, capacitors shall meet the following limits.	ΔC/C	Within ±30% of the initial value						
		tanδ	Less than 300% of the initial value						
		LC	Within the initial limit						
Shelf Life	-	After storage for 1000 h at +105 °C ± 2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance.							
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20°C, capacitors shall meet the following limits.	ΔC/C	Within ±10% of the initial value						
		tanδ	Within the initial limit						
		LC	Within the initial limit						

## ◆ Chip type



\*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: SuY, RZ

ΦDxL	6.3x5.8	6.3x7.7	8x6.5	8x10.5	10x10.5	10x13.5
B	6.6	6.6	8.3	8.3	10.3	10.3
C	6.6	6.6	8.3	8.3	10.3	10.3
E±0.2	2.2	2.2	2.2 / 3.1	3.1	4.4	4.4
L	5.8±0.6	7.7±0.6	6.5±0.6	10.5±0.6	10.5±0.6	13.5±1.0
R	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	0.7 to 1.2
W	7.3	7.3	9.2	9.2	11.2	11.2

# TS13CY

◆ Standard size & Maximum permissible ripple current & Impedance

WV Cap/uF		6.3			10			16		
		0J			1A			1C		
47	470							6.3x5.8	0.36	300
68	680							6.3x5.8	0.36	300
100	101	6.3x5.8	0.36	300				6.3x5.8 (6.3x7.7)	0.36 (0.26)	300 (300)
150	151				6.3x5.8	0.36	300	6.3x7.7	0.26	600
220	221	6.3x5.8	0.36	300	6.3x7.7 (8x6.5)	0.26 (0.26)	600 (500)	6.3x7.7 (8x6.5)	0.26 (0.26)	600 (500)
330	331	6.3x7.7 (8x6.5)	0.26 (0.26)	600 (500)	8x10.5	0.14	850	8x10.5	0.14	850
470	471	8x10.5	0.14	850	8x10.5	0.14	850	8x10.5	0.14	850
680	681	8x10.5	0.14	850	8x10.5	0.14	850	10x10.5	0.08	1190
820	821							10x10.5	0.08	1190
1000	102				10x10.5	0.08	1190	10x10.5	0.08	1190
1500	152	10x10.5	0.08	1190	10x13.5	0.08	1190			
2200	222	10x13.5	0.08	1190				Case size	ESR (Ω) , 20°C	Rated ripple current

WV Cap/uF		25			35			50		
		1E			1V			1H		
33	330	6.3x5.8	0.36	300	6.3x5.8	0.36	300			
47	470	6.3x5.8	0.36	300	6.3x5.8	0.36	300			
68	680	6.3x5.8	0.36	300	6.3x7.7	0.26	600			
100	101	6.3x7.7 (8x6.5)	0.26 (0.26)	600 (500)	6.3x7.7 (8x10.5)	0.26 (0.14)	600 (850)	8x10.5	0.24	670
150	151	8x10.5	0.14	850	8x10.5	0.14	850			
220	221	8x10.5	0.14	850				10x10.5	0.14	900
330	331				10x10.5	0.08	1190			
390	391				10x10.5	0.08	1190			
470	471	10x10.5	0.08	1190				Case size:	ESR (Ω) , 20°C	Rated ripple current
560	561	10x10.5	0.08	1190						

Case size: ΦDxL(mm)  
ESR (Ω)max at 100kHz, 20°C  
Rated ripple current mArms(100kHz, 105°C)

◆ Frequency coefficient Factor of Rated Ripple current

Frequency	50Hz	120Hz	1kHz	10kHz ≦
Capacitance: C(μF)	0.60	0.70	0.85	1.00

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