

TC Series



Tantalum Solid Electrolytic Capacitors Chip Type (Surface mount)

FEATURES:

- Lead-Free, ROHS Compliant.
- General purpose surface mount type.
- Compact size & wide CV range.
- High solderability & stable characteristics for soldering.
- Compatible with all popular automatic pick and place equipment.



SPECIFICATION:

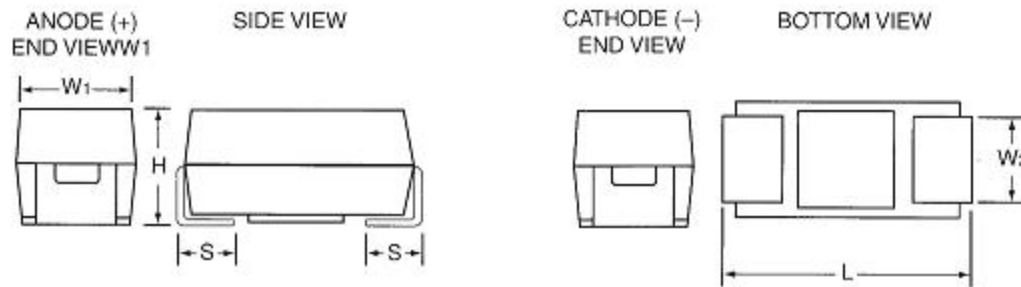
Item	Performance Characteristics										
Operating Temperature Range	-55 to + 125°C										
Rated Working Voltage Range	4 to 50 V DC										
Nominal Capacitance Range	0.1 to 1500µF										
Capacitance Tolerance	±20% ± 10% (120Hz, +20°C)										
Leakage Current	Not more than 0.01CV [µA] or 0.5µA whichever is greater										
Characteristics at High and Low Temperature	Capacitance (µF)	Capacitance Change(%)			DF Max.(%)				DCL Max.(µF)		
			-55°C	+85°C	+125°C	-55°C	+20°C	+85°C	+125°C	+85°C	+125°C
		≤1.0				6	4	6	6	10L	12L
		1.5~68	-10	+10	+12	10	6	10	10		
		100~680				12	8	12	12		
680~1000	14	10				14	14				
Moisture Resistance	Test conditions Relative humidity : 90 to 95% without load Ambient temperature : +40°C Duration : 500 hours Post test requirements at + 20°C Leakage current : ≤ Initial specified value Capacitance change : ± 10% of initial measured value tan δ : ≤ Initial specified value										
Endurance	Test conditions										
	Item	Conditions			Derating			Rating			
	Duration				2000 hours			2000 hours			
	Ambient temperature				+ 125°C			+ 85°C			
	Applied voltage				Derated working voltage			Rated working voltage			
Source impedance				1Ω/V			1Ω/V				
	Rated Voltage	4.0	6.3	10.0	16.0	20.0	25.0	35.0	50.0		
	Voltage Derating	2.5	4.0	6.3	10.0	13.0	16.0	23.0	33.0		
	Surge Voltage+85°C	5.0	8.0	13.0	20.0	26.0	32.0	46.0	65.0		
	Surge Voltage+125°C	3.4	5.0	9.0	12.0	16.0	20.0	26.0	38.0		
	Post test requirements at +20°C										
	Leakage current	: ≤ 125% of initial specified value									
	Capacitance change	: ± 10% of initial measured value									
	tan δ	: ≤ Initial specified value									
Shelf Life	Test conditions										
	Duration	: 2000 hours					Post test requirements at +20°C				
	Ambient temperature	: +125°C					Same limits for "Endurance".				
	Applied voltage	: (none)									
Solder Heat Resistance	The capacitor shall withstand dipping into solder bath for 5±1 seconds at 260±5°C										

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1. Tantalum Capacitor CHIP TYPE OUTLINE DRAWINGS.



2. Dimensions Millimeters (Inch)

Case Size	$L \pm 0.2$ (0.008)	$W_1 \pm 0.2$ (0.008)	$H \pm 0.2$ (0.008)	$S \pm 0.2$ (0.008)	$W_2 \pm 0.2$ (0.008)
S	2.0 (0.079)	1.2 (0.047)	1.2 (0.047)	0.5 (0.020)	1.2 (0.047)
A	3.2 (0.126)	1.6 (0.063)	1.6 (0.063)	0.8 (0.031)	1.2 (0.047)
B	3.5 (0.137)	2.8 (0.110)	1.9 (0.075)	0.8 (0.031)	2.2 (0.087)
C	6.0 (0.236)	3.2 (0.126)	2.5 (0.098)	1.3 (0.051)	2.2 (0.087)
D	7.3 (0.287)	4.3 (0.169)	2.8 (0.110)	1.3 (0.051)	2.4 (0.094)
E	7.3 (0.287)	4.3 (0.169)	4.0 (0.157)	1.3 (0.051)	2.4 (0.094)
V	7.3 (0.287)	6.1 (0.240)	3.5 (0.135)	1.4 (0.055)	3.1 (0.120)

3. Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	4	6.3	10	16	20	25	35	50
Code	0G	0J	1A	1C	1D	1E	1V	1H
Capacitance (μ F)	Case Size							
0.10 (104)					S		A	A
0.15 (154)					S		A	A/B
0.22 (224)					S		A	A/B
0.33 (334)					S		A	B
0.47 (474)				S	S	A	A/B	B/C
0.68 (684)			S	S	S/A	A	A/B	B/C
1.0 (105)		S	S	S/A	A	A	A/B	B/C
1.5 (155)	S	S	S/A	S/A	A	A/B	A/B/C	C/D
2.2 (225)	S	S/A	S/A	A	A	A/B	A/B/C	C/D
3.3 (335)	S	S/A	S/A	A	A	A/B/C	B/C	C/D
4.7 (475)	S/A	S/A	A	A/B	A/B	B/C	B/C/D	D
6.8 (685)	S/A	A	A	A/B	A/B	B/C	C/D	D
10 (106)	A	A	A	A/B/C	B	C/D	C/D/E	D/E
15 (156)	A	A	A	A/B/C	B	C/D	C/D	E
22 (226)	A	A/B	A/B/C	B/C/D	B	C/D	D/E	V
33 (336)	A	A/B/C	B/C	B/C/D	C	D/E	D/E/V	
47 (476)	A	A/B/C	B/C	C/D	C	D/E	E/V	
68 (686)	B/C	B/C	B/C/D	C/D	D	E/V	V	
100 (107)	B/C	B/C/D	B/C/D	D/E	D/E/V	V		
150 (157)	B/C	C/D	C/D/E	D/E/V	E/V			
220 (227)	B/C/D	C/D/E	D/E	D/E/V				
330 (337)	C/D/E	D/E	D/E/V					
470 (477)	D/E	D/E/V	E/V					
680 (687)	D/E	E/V						
1000 (108)	E/V	V						
1500 (158)	E/V							

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Explanation of Part Numbers

TC
Series Code
A
Case Size
475
Nominal Capacitance
M
Capacitance Tolerance
016
Rated Voltage
T
Carrier Tape Packaging
R
Polarity Orientation

RATINGS AND PART NUMBER REFERENCE

SONJIU Part No.	Case Size	Capacitance μ F	DCL (μ A) Max	DF % Max	ESR Max(Ω) @100kHz
4 volt @85°C(2.5volt,@125°C)					
TC S 155(#) <u>004TR</u>	S	1.5	0.5	6	30
TC S 225(#) <u>004TR</u>	S	2.2	0.5	6	25
TC S 335(#) <u>004TR</u>	S	3.3	0.5	6	20
TC S 475(#) <u>004TR</u>	S	4.7	0.5	6	10
TC A 475(#) <u>004TR</u>	A	4.7	0.5	6	7.5
TC S 685(#) <u>004TR</u>	S	6.8	0.5	6	7.0
TC A 685(#) <u>004TR</u>	A	6.8	0.5	6	6.5
TC A 106(#) <u>004TR</u>	A	10	0.5	6	6.0
TC A 156(#) <u>004TR</u>	A	15	0.6	6	4.0
TC A 226(#) <u>004TR</u>	A	22	0.9	6	3.5
TC A 336(#) <u>004TR</u>	A	33	1.3	6	3.0
TC A 476(#) <u>004TR</u>	A	47	1.9	8	2.6
TC B 686(#) <u>004TR</u>	B	68	2.7	6	1.6
TC C 686(#) <u>004TR</u>	C	68	2.7	6	1.1
TC B 107(#) <u>004TR</u>	B	100	4.0	8	0.9
TC C 107(#) <u>004TR</u>	C	100	4.0	8	1.3
TC B 157(#) <u>004TR</u>	B	150	6.0	8	1.5
TC C 157(#) <u>004TR</u>	C	150	6.0	8	0.9
TC B 227(#) <u>004TR</u>	B	220	8.8	12	1.1
TC C 227(#) <u>004TR</u>	C	220	8.8	8	1.2
TC D 227(#) <u>004TR</u>	D	220	8.8	8	0.9
TC C 337(#) <u>004TR</u>	C	330	13.2	8	0.9
TC D 337(#) <u>004TR</u>	D	330	13.2	8	0.9
TC E 337(#) <u>004TR</u>	E	330	13.2	8	0.9
TC D 477(#) <u>004TR</u>	D	470	18.8	12	0.9
TC E 477(#) <u>004TR</u>	E	470	18.8	10	0.9
TC D 687(#) <u>004TR</u>	D	680	27.2	14	0.5
TC E 687(#) <u>004TR</u>	E	680	27.2	14	0.9
TC E 108(#) <u>004TR</u>	E	1000	40	14	0.4
TC V 108(#) <u>004TR</u>	V	1000	40	16	0.4
TC E 158(#) <u>004TR</u>	E	1500	60	30	0.2
TC V 158(#) <u>004TR</u>	V	1500	60	30	0.2
6.3 volt @85°C(4volt,@125°C)					
TC S 105(#) <u>006TR</u>	S	1.0	0.5	4	25
TC S 155(#) <u>006TR</u>	S	1.5	0.5	6	25
TC S 225(#) <u>006TR</u>	S	2.2	0.5	6	20
TC A 225(#) <u>006TR</u>	A	2.2	0.5	6	9
TC S 335(#) <u>006TR</u>	S	3.3	0.5	6	12
TC A 335(#) <u>006TR</u>	A	3.3	0.5	6	7.0
TC S 475(#) <u>006TR</u>	S	4.7	0.5	6	7.0
TC A 475(#) <u>006TR</u>	A	4.7	0.5	6	6.0
TC A 685(#) <u>006TR</u>	A	6.8	0.5	6	5.0
TC A 106(#) <u>006TR</u>	A	10	0.6	6	4.0
TC A 156(#) <u>006TR</u>	A	15	0.9	6	4.0
TC A 226(#) <u>006TR</u>	A	22	1.4	6	3.5
TC B 226(#) <u>006TR</u>	B	22	1.4	6	2.5
TC A 336(#) <u>006TR</u>	A	33	2.0	8	2.5
TC B 336(#) <u>006TR</u>	B	33	2.0	6	2.0
TC C 336(#) <u>006TR</u>	C	33	2.0	6	1.8
TC A 476(#) <u>006TR</u>	A	47	2.8	10	1.6
TC B 476(#) <u>006TR</u>	B	47	3.0	6	2.0
TC C 476(#) <u>006TR</u>	C	47	3.0	6	1.6
TC B 686(#) <u>006TR</u>	B	68	4.0	8	0.9
TC C 686(#) <u>006TR</u>	C	68	4.3	6	1.6
TC B 107(#) <u>006TR</u>	B	100	6.3	10	1.7
TC C 107(#) <u>006TR</u>	C	100	6.3	8	1.4
TC D 107(#) <u>006TR</u>	D	100	6.3	8	0.9
TC C 157(#) <u>006TR</u>	C	150	9.5	6	1.3
TC D 157(#) <u>006TR</u>	D	150	9.5	8	0.9
TC C 227(#) <u>006TR</u>	C	220	13.9	8	1.2
TC D 227(#) <u>006TR</u>	D	220	13.9	8	0.9
TC E 227(#) <u>006TR</u>	E	220	13.9	8	0.9
TC D 330(#) <u>006TR</u>	D	330	20.9	8	0.4
TC E 330(#) <u>006TR</u>	E	330	20.9	8	0.4

SONJIU Part No.	Case Size	Capacitance μ F	DCL (μ A) Max	DF % Max	ESR Max(Ω) @100kHz
6.3 volt @85°C(4volt,@125°C)					
TC D 477(#) <u>006TR</u>	D	470	28.0	12	0.4
TC E 477(#) <u>006TR</u>	E	470	28.0	10	0.4
TC V 477(#) <u>006TR</u>	V	470	28.0	10	0.4
TC E 687(#) <u>006TR</u>	E	680	42.8	10	0.5
TC V 687(#) <u>006TR</u>	V	680	42.8	10	0.5
TC V 108(#) <u>006TR</u>	V	1000	63	16	0.4
10 volt @85°C(6.3volt,@125°C)					
TC S 684(#) <u>010TR</u>	S	0.68	0.5	4	30.0
TC S 105(#) <u>010TR</u>	S	1.0	0.5	4	25.0
TC S 155(#) <u>010TR</u>	S	1.5	0.5	6	25.0
TC A 155(#) <u>010TR</u>	A	1.5	0.5	6	10.0
TC S 225(#) <u>010TR</u>	S	2.2	0.5	6	15.0
TC A 225(#) <u>010TR</u>	A	2.2	0.5	6	7.0
TC S 335(#) <u>010TR</u>	S	3.3	0.5	6	10.0
TC A 335(#) <u>010TR</u>	A	3.3	0.5	6	5.5
TC A 475(#) <u>010TR</u>	A	4.7	0.5	6	5.0
TC A 685(#) <u>010TR</u>	A	6.8	0.7	6	4.0
TC A 106(#) <u>010TR</u>	A	10	1.0	6	3.0
TC A 156(#) <u>010TR</u>	A	15	1.5	6	3.2
TC A 226(#) <u>010TR</u>	A	22	2.2	8	3.0
TC B 226(#) <u>010TR</u>	B	22	2.2	6	2.4
TC C 226(#) <u>010TR</u>	C	22	2.2	6	1.8
TC B 336(#) <u>010TR</u>	B	33	3.3	6	1.8
TC C 336(#) <u>010TR</u>	C	33	3.3	6	1.6
TC B 476(#) <u>010TR</u>	B	47	4.7	8	1.0
TC C 476(#) <u>010TR</u>	C	47	4.7	6	1.2
TC B 686(#) <u>010TR</u>	B	68	6.8	6	1.4
TC C 686(#) <u>010TR</u>	C	68	6.8	6	0.9
TC D 686(#) <u>010TR</u>	D	68	6.8	6	0.9
TC B 107(#) <u>010TR</u>	B	100	10	8	1.4
TC C 107(#) <u>010TR</u>	C	100	10	8	1.2
TC D 107(#) <u>010TR</u>	D	100	10	6	0.9
TC C 157(#) <u>010TR</u>	C	150	15	8	0.9
TC D 157(#) <u>010TR</u>	D	150	15	6	0.9
TC E 157(#) <u>010TR</u>	E	150	15	8	0.9
TC D 227(#) <u>010TR</u>	D	220	22	8	0.5
TC E 227(#) <u>010TR</u>	E	220	22	8	0.5
TC D 337(#) <u>010TR</u>	D	330	33	8	0.9
TC E 337(#) <u>010TR</u>	E	330	33	8	0.9
TC V 337(#) <u>010TR</u>	V	330	33	10	0.9
TC E 477(#) <u>010TR</u>	E	470	47	10	0.5
TC V 477(#) <u>010TR</u>	V	470	47	10	0.5
16 volt @85°C (10 volt,@125°C)					
TC S 474(#) <u>016TR</u>	S	0.47	0.5	4	25.0
TC S 684(#) <u>016TR</u>	S	0.68	0.5	4	25.0
TC S 105(#) <u>016TR</u>	S	1.0	0.5	6	20.0
TC A 105(#) <u>016TR</u>	A	1.0	0.5	6	11.0
TC S 155(#) <u>016TR</u>	S	1.5	0.5	6	12.0
TC A 155(#) <u>016TR</u>	A	1.5	0.5	6	8.0
TC A 225(#) <u>016TR</u>	A	2.2	0.5	6	6.5
TC A 335(#) <u>016TR</u>	A	3.3	0.5	6	5.0
TC A 475(#) <u>016TR</u>	A	4.7	0.8	6	4.0
TC B 475(#) <u>016TR</u>	B	4.7	0.8	6	3.5
TC A 685(#) <u>016TR</u>	A	6.8	1.1	6	3.5
TC B 685(#) <u>016TR</u>	B	6.8	1.1	6	2.5
TC A 106(#) <u>016TR</u>	A	10	1.6	8	3.0
TC B 106(#) <u>016TR</u>	B	10	1.6	6	2.8
TC C 106(#) <u>016TR</u>	C	10	1.6	6	2.0
TC A 156(#) <u>016TR</u>	A	15	2.4	6	1.8
TC B 156(#) <u>016TR</u>	B	15	2.4	6	2.5
TC C 156(#) <u>016TR</u>	C	15	2.4	6	1.8
TC B 226(#) <u>016TR</u>	B	22	3.5	6	2.3
TC C 226(#) <u>016TR</u>	C	22	3.5	6	1.6
TC D 226(#) <u>016TR</u>	D	22	3.5	6	1.1

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RATINGS AND PART NUMBER REFERENCE

SONJIU Part No.	Case Size	Capacitance (μF)	DCL (μA) Max	DF % Max	ESR Max(Ω) @100kHz
16 volt @85°C (10 volt.@125°C)					
TC B 336(#016TR	B	33	5.3	8	2.1
TC C 336(#016TR	C	33	5.3	6	1.5
TC D 336(#016TR	D	33	5.3	6	0.9
TC C 476(#016TR	C	47	7.5	6	1.4
TC D 476(#016TR	D	47	7.5	6	0.9
TC C 686(#016TR	C	68	10.9	6	1.3
TC D 686(#016TR	D	68	10.9	6	0.9
TC D 107(#016TR	D	100	16	6	0.9
TC E 107(#016TR	E	100	16	6	0.9
TC D 157(#016TR	D	150	24	6	0.9
TC E 157(#016TR	E	150	24	8	0.3
TC V 157(#016TR	V	150	24	8	0.5
TC D 227(#016TR	D	220	35.2	8	0.5
TC E 227(#016TR	E	220	35.2	8	0.5
TC V 227(#016TR	V	220	35.2	8	0.9
20 volt @85°C (16 volt.@125°C)					
TC S 104(#020TR	S	0.1	0.5	4	25
TC S 154(#020TR	S	0.15	0.5	4	25
TC S 224(#020TR	S	0.22	0.5	4	25
TC S 334(#020TR	S	0.33	0.5	4	25
TC S 474(#020TR	S	0.47	0.5	4	25
TC S 684(#020TR	S	0.68	0.5	4	25
TC A 684(#020TR	A	0.68	0.5	4	12
TC A 105(#020TR	A	1.0	0.5	4	9.0
TC A 155(#020TR	A	1.5	0.5	6	6.5
TC A 225(#020TR	A	2.2	0.5	6	5.3
TC A 335(#020TR	A	3.3	0.7	6	4.5
TC A 475(#020TR	A	4.7	0.9	6	4.0
TC B 475(#020TR	B	4.7	0.9	6	3.0
TC A 685(#020TR	A	6.8	1.4	6	2.5
TC B 685(#020TR	B	6.8	1.4	6	2.5
TC B 106(#020TR	B	10	2.0	6	2.1
TC B 156(#020TR	B	15	3.0	6	2.0
TC B 226(#020TR	B	22	4.4	6	1.8
TC C 336(#020TR	C	33	6.6	6	1.5
TC C 476(#020TR	C	47	9.4	6	0.9
TC D 686(#020TR	D	68	13.6	6	0.9
TC D 107(#020TR	D	100	20.0	6	0.9
TC E 107(#020TR	E	100	20.0	6	0.9
TC V 107(#020TR	V	100	20.0	8	0.9
TC E 157(#020TR	E	150	30.0	8	0.3
TC V 157(#020TR	V	150	30.0	8	0.5
25 volt @85°C (16 volt.@125°C)					
TC A 474(#025TR	A	0.47	0.5	4	14.0
TC A 684(#025TR	A	0.68	0.5	4	10.0
TC A 105(#025TR	A	1.0	0.5	4	8.0
TC A 155(#025TR	A	1.5	0.5	6	7.5
TC B 155(#025TR	B	1.5	0.5	6	5.0
TC A 225(#025TR	A	2.2	0.6	6	7.0
TC B 225(#025TR	B	2.2	0.6	6	4.5
TC A 335(#025TR	A	3.3	0.8	6	3.7
TC B 335(#025TR	B	3.3	0.8	6	3.5
TC C 335(#025TR	C	3.3	0.8	6	2.8
TC B 475(#025TR	B	4.7	1.2	6	2.8
TC C 475(#025TR	C	4.7	1.2	6	2.4
TC B 685(#025TR	B	6.8	1.7	6	2.8
TC C 685(#025TR	C	6.8	1.7	6	2.0
TC C 106(#025TR	C	10	2.5	6	1.8
TC D 106(#025TR	D	10	2.5	6	1.2
TC C 156(#025TR	C	15	3.8	6	1.6
TC D 156(#025TR	D	15	3.8	6	1.0
TC C 226(#025TR	C	22	5.5	6	1.4
TC D 226(#025TR	D	22	5.5	6	0.9
TC D 336(#025TR	D	33	8.3	6	0.9
TC E 336(#025TR	E	33	8.3	6	0.9
TC D 476(#025TR	D	47	11.8	6	0.9
TC E 476(#025TR	E	47	11.8	6	0.9

SONJIU Part No.	Case Size	Capacitance (μF)	DCL (μA) Max	DF % Max	ESR Max(Ω) @100kHz
25 volt @85°C (16 volt.@125°C)					
TC E 686(#025TR	E	68	17	6	0.9
TC V 686(#025TR	V	68	17	6	0.9
TC V 107(#025TR	V	100	25	8	1.4
35 volt @85°C (22 volt.@125°C)					
TC A 104(#035TR	A	0.1	0.5	4	24
TC A 154(#035TR	A	0.15	0.5	4	21
TC A 224(#035TR	A	0.22	0.5	4	18
TC A 334(#035TR	A	0.33	0.5	4	15
TC A 474(#035TR	A	0.47	0.5	4	12
TC B 474(#035TR	B	0.47	0.5	4	10
TC A 684(#035TR	A	0.68	0.5	4	8.0
TC B 684(#035TR	B	0.68	0.5	4	8.0
TC A 105(#035TR	A	1.0	0.5	4	7.5
TC B 105(#035TR	B	1.0	0.5	4	6.5
TC A 155(#035TR	A	1.5	0.5	6	7.5
TC B 155(#035TR	B	1.5	0.5	6	5.2
TC C 155(#035TR	C	1.5	0.5	6	4.5
TC A 225(#035TR	A	2.2	0.8	6	4.5
TC B 225(#035TR	B	2.2	0.8	6	4.2
TC C 225(#035TR	C	2.2	0.8	6	3.5
TC B 335(#035TR	B	3.3	1.2	6	3.5
TC C 335(#035TR	C	3.3	1.2	6	2.5
TC B 475(#035TR	B	4.7	1.2	6	3.1
TC C 475(#035TR	C	4.7	1.6	6	2.2
TC D 475(#035TR	D	4.7	1.6	6	1.5
TC C 685(#035TR	C	6.8	2.4	6	1.8
TC D 685(#035TR	D	6.8	2.4	6	1.3
TC C 106(#035TR	C	10	3.5	6	1.6
TC D 106(#035TR	D	10	3.5	6	1.0
TC E 106(#035TR	E	10	3.5	6	0.9
TC C 156(#035TR	C	15	5.3	6	1.4
TC D 156(#035TR	D	15	5.3	6	0.9
TC D 226(#035TR	D	22	7.7	6	0.9
TC E 226(#035TR	E	22	7.7	6	0.9
TC D 336(#035TR	D	33	11.6	6	0.9
TC E 336(#035TR	E	33	11.6	6	0.9
TC V 336(#035TR	V	33	11.6	6	0.9
TC E 476(#035TR	E	47	16.5	6	0.9
TC V 476(#035TR	V	47	16.5	6	0.4
TC V 686(#035TR	V	68	23.8	6	0.5
50 volt @85°C (32 volt.@125°C)					
TC A 104(#050TR	A	0.1	0.5	4	22
TC A 154(#050TR	A	0.15	0.5	4	17
TC B 154(#050TR	B	0.15	0.5	4	15
TC A 224(#050TR	A	0.22	0.5	4	18
TC B 224(#050TR	B	0.22	0.5	4	14
TC B 334(#050TR	B	0.33	0.5	4	12
TC B 474(#050TR	B	0.47	0.5	4	9.5
TC C 474(#050TR	C	0.47	0.5	4	8.0
TC B 684(#050TR	B	0.68	0.5	4	8.0
TC C 684(#050TR	C	0.68	0.5	4	7.0
TC B 105(#050TR	B	1.0	0.5	4	7.0
TC C 105(#050TR	C	1.0	0.5	4	5.5
TC C 155(#050TR	C	1.5	0.8	6	4.5
TC D 155(#050TR	D	1.5	0.8	6	4.0
TC C 225(#050TR	C	2.2	1.1	6	3.0
TC D 225(#050TR	D	2.2	1.1	6	2.5
TC C 335(#050TR	C	3.3	1.7	6	2.5
TC D 335(#050TR	D	3.3	1.7	6	2.0
TC D 475(#050TR	D	4.7	2.4	6	1.4
TC D 685(#050TR	D	6.8	3.4	6	1.0
TC D 106(#050TR	D	10.0	5.0	6	0.8
TC E 106(#050TR	E	10.0	5.0	6	1.0
TC E 156(#050TR	E	15.0	7.5	6	0.6
TC V 226(#050TR	V	22.0	11.0	8	0.6

All technical data relates to an ambient temperature of +20C measured at 120 HZ, 0.5V RMS unless otherwise stated.

For 10% tolerance, insert, "K" in (#) above.
For 20% tolerance, insert, "M" in (#) above.

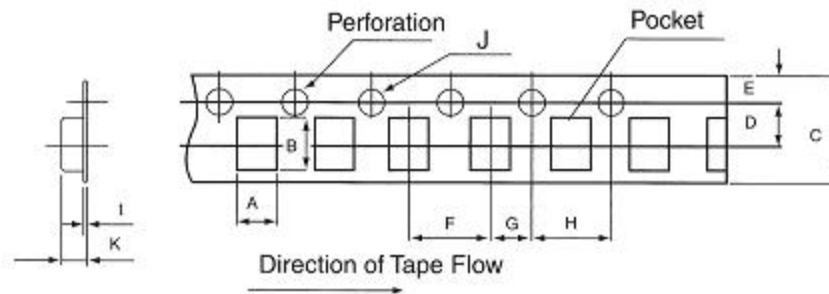
TC Series

Tantalum Solid Electrolytic Capacitors
Chip Type (Surface mount)



Carrier Tape Packaging Specification

Dimensions of the carrier tape and standard parts quantity per reel.
Dimensions

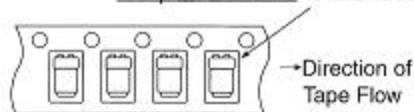


(Unit:mm)

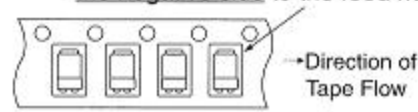
CASE SIZE	A ±0.1	B ±0.1	C ±0.3	D ±0.1	E ±0.1	F ±0.1	G ±0.1	H ±0.1	J +0.1 -0	K MAX	t	Quantity Per Reel
S	1.6	2.4	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
A	1.9	3.5	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
B	3.1	3.8	8.0	3.5	1.75	4.0	2.0	4.0	1.5	2.5	0.2	2000
C	3.6	6.4	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.0	0.3	500
D	4.7	7.7	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.4	0.3	500
E	4.6	7.6	12.0	5.5	1.75	8.0	2.0	4.0	1.5	4.6	0.3	400
V	6.4	7.4	12.0	5.5	1.75	8.0	2.0	4.0	1.5	3.8	0.3	400

Inserting Direction (Polarity Orientation)

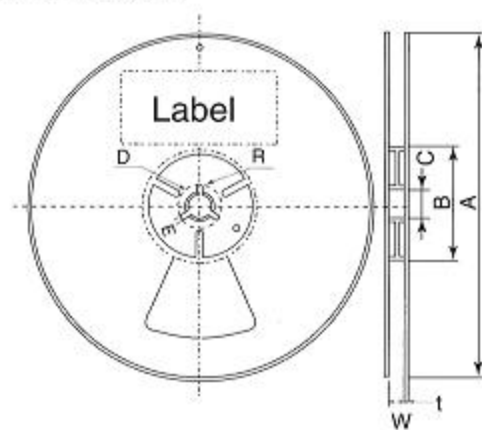
Polarity L: To be inserted with the positive side to the feed hole.



Polarity R: To be inserted with the negative side to the feed hole.



Reel Dimensions



(Unit:mm)

Tape width	8	12
A_3^0	∅ 180	←
B_0^{+1}	∅ 60	←
$C \pm 0.2$	∅ 13	←
$D \pm 0.8$	∅ 21	←
$E \pm 0.5$	2.0	←
$W \pm 0.3$	9.0	13.0
$t \pm 0.4$	1.3	←
$R \pm 0.4$	10.5	←

Tape Leader and Tailer

