

TD Series

Tantalum Solid Electrolytic Capacitors Dipped Type (Epoxy-Coated)

FEATURES:

- Lead-Free, ROHS Compliant.
- Specially designed of general purpose.
- Highly reliable resin dipped type.
- Excellent frequency and temperature characteristics.
- Non-flammable epoxy resin.



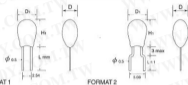
SPECIFICATIONS:

Item	Performance Characteristics										
Operating Temperature Range	-55 to +125°C (-55 to +85°C for 4 & 6.3V)										
Rated Working Voltage Range	6.3 to 50 V DC										
Nominal Capacitance Range	0.1 to 330 μ F										
Capacitance Tolerance	$\pm 20\%$ ($\pm 10\%$ is available) (120Hz, +20°C)										
Leakage Current	Not more than 0.008CV [μ A] or 0.5 μ A whichever is greater										
Characteristics at High and Low Temperature	Capacitance (μ F)	Capacitance Change(%)			DF Max.(%)				DCL Max(μ F)		
		-55°C	+85°C	+125°C	-50°C	+25°C	+80°C	+125°C	+20°C	+80°C	+125°C
	≤ 1.0				5	4	8	8	10% (10% of initial value is permitted)	10L	12.5L
	1.5-68	± 15	± 15	± 25	8	8	8	8			
100-330				10	8	10	10				
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	: $\leq 0.012CV$ or 0.75 [μ A], whichever is greater									
	Capacitance change	: $\pm 10\%$ of initial measured value									
	tan δ	: $\leq 150\%$ of initial specified value									
Endurance	Test conditions										
	Item	Conditions			Derating (for 10 to 50V only)			Rating			
	Duration				1000 hours			2000 hours			
	Ambient temperature				+105°C			+85°C			
	Applied voltage				Derated working voltage			Rated working voltage			
	Source impedance				1 Ω /V			1 Ω /V			
	Derating voltage +125°C for 10-50V working										
	Rated Voltage	4.0	6.3	10.0	16.0	25.0	25.0	35.0	50.0		
	Voltage Derating	2.5	4.0	6.3	16.0	13.0	16.0	23.0	33.0		
	Surge Voltage+85°C	5.0	8.0	13.0	16.0	26.0	32.0	46.0	65.0		
Surge Voltage+125°C	3.4	5.0	9.0	16.0	15.0	20.0	28.0	35.0			
Post test requirements at +20°C											
	Leakage current	: $\leq 0.01\% CV$ or 0.0625 μ A, whichever is greater									
	Capacitance change	: $\pm 10\%$ of initial measured value									
	tan δ	: \leq Initial specified value									
Shelf Life	Test conditions										
	Duration	: 2000 hours							Post test requirements at +20°C		
	Ambient temperature	: +85°C							Some limits for "Endurance".		
	Applied voltage	: (none)									

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Tantalum Capacitor Dipped Type outline Drawings



Dimensions Millimeters

Case Size	A	B	C	D	E	F
Formats 1/2						
H1 max	7.0	8.0	9.5	11.0	13.0	16.5
D1 max	4.5	5.0	5.5	6.5	8.5	9.5
D max	4.2	4.7	5.5	6.5	6.5	9.5

Wire Length (L)	5,7±1	16,18±1
Code	A	B

Rated Voltage, Capacitance of Capacitors.

VR (V)	6.3	10	16	25	35	50
Code	0J	1A	1C	1E	1V	1H
Capacitance (µF)	Case Size					
0.10 (104)					A	A
0.15 (154)					A	A
0.22 (224)					A	A
0.33 (334)					A	A
0.47 (474)					A	A
0.68 (684)					A	A
1.0 (105)				A	A	B
1.5 (155)			A	A	A	C
2.2 (225)		A	A	A	B	C
3.3 (335)	A	A	A	B	B	D
4.7 (475)	A	A	B	B	C	D
6.8 (685)	A	B	B	C	D	E
10 (106)	B	B	B	C	D	E
15 (156)	B	C	C	D	E	F
22 (226)	C	C	C	D	E	F
33 (336)	C	D	D	E	F	
47 (476)	D	D	D	E	F	
68 (686)	D	D	E	F		
100 (107)	E	E	E	F		
150 (157)	E	E	F			
220 (227)	E	F				
330 (337)	F					

Leads & Solderability
 Stripped radial leads, $\phi 0.5$ mm.
 Standard lead spacing: $2.54 \pm 0.5, 5.08 \pm 0.5$ mm.
 Solderability:
 - Recommended soldering bath

Temperature: 200°C
 Time of immersion: 3s
 The Sn should cover 95% of wire surface.
 Permissible pull test: 10 N

零件材料部 886-0-0733179
 群特力电子(上海) 86-21-64181736
 群特力电子有限公司 86-755-83289787
[Http://www.100y.com.tw](http://www.100y.com.tw)

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Explanation of Part Numbers

TD	A	4.7	M	0.16	B	I	B&T
Series Code	Size Code	Nominal Capacitance	Capacitance Tolerance	Rated Voltage	Wire Length	Format & lead space	Bulk & Ammo pack

RATINGS AND PART NUMBER REFERENCE

SONJUI Part No.	Case Size	Capacitance μ F	DCL (μ A) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
6.3 volt @ 85°C (4 volt, @ 125°C)					
TDA3358000000	A	3.3	0.5	6	13.0
TDA4758000000	A	4.7	0.5	6	10.0
TDA6858000000	A	6.8	0.5	6	8.0
TDB1068000000	B	10	0.5	6	6.0
TDB1568000000	B	15	0.8	8	5.0
TDC2268000000	C	22	1.1	8	3.7
TDC3368000000	C	33	1.7	8	3.0
TDD4768000000	D	47	2.4	8	2.0
TDD6868000000	D	68	3.4	8	1.8
TDE1078000000	E	100	5.0	10	1.6
TDE1578000000	E	150	7.6	10	0.9
TDE2278000000	E	220	11.0	10	0.9
TDF3378000000	F	330	16.8	10	0.7
10 volt @ 85°C (6.3 volt, @ 125°C)					
TDA2258010000	A	2.2	0.5	6	13.0
TDA3358010000	A	3.3	0.5	6	10.0
TDA4758010000	A	4.7	0.5	6	8.0
TDB6858010000	B	6.8	0.5	6	6.0
TDB1068010000	B	10	0.8	8	5.0
TDC1568010000	C	15	1.2	8	3.7
TDC2268010000	C	22	1.7	8	2.7
TDC3368010000	D	33	2.6	8	2.1
TDD4768010000	D	47	3.7	8	1.7
TDD6868010000	D	68	5.4	8	1.8
TDE1078010000	E	100	8.0	10	1.0
TDE1578010000	E	150	12.0	10	0.8
TDF2278010000	F	220	17.6	10	0.8
16 volt @ 85°C (10 volt, @ 125°C)					
TDA1568016000	A	1.5	0.5	4	10.0
TDA2258016000	A	2.2	0.5	6	8.0
TDA3358016000	A	3.3	0.5	6	6.0
TDB4758016000	B	4.7	0.8	6	5.0
TDB6858016000	B	6.8	0.8	8	4.0
TDB1068016000	B	10	1.2	8	3.2
TDC1568016000	C	15	1.9	8	2.5
TDC2268016000	C	22	2.8	8	2.0
TDD3368016000	D	33	4.2	8	1.6
TDD4768016000	D	47	6.0	8	1.3
TDE6868016000	E	68	8.7	8	1.0
TDE1078016000	E	100	12.8	10	0.8
TDF1578016000	F	150	19.2	10	0.6
TDF2278016000	F	220	19.2	10	0.6

SONJUI Part No.	Case Size	Capacitance μ F	DCL (μ A) Max.	DF % Max.	ESR max. (Ω) @ 100kHz
25 volt @ 85°C (16 volt, @ 125°C)					
TDA1068025000	A	1.0	0.5	4	10.0
TDA1568025000	A	1.5	0.5	4	8.0
TDA2258025000	A	2.2	0.5	6	6.0
TDB3358025000	B	3.3	0.6	6	5.0
TDB4758025000	B	4.7	0.9	6	4.0
TDC6858025000	C	6.8	1.3	6	3.1
TDC1068025000	C	10	2.0	8	2.5
TDD1568025000	D	15	3.0	8	2.0
TDD2258025000	D	22	4.4	8	1.5
TDE3368025000	E	33	6.6	8	1.2
TDE4768025000	E	47	9.4	8	1.0
TDF6868025000	F	68	13.6	8	0.8
35 volt @ 85°C (23 volt, @ 125°C)					
TDA1048035000	A	0.1	0.5	4	26.0
TDA1548035000	A	0.15	0.5	4	21.0
TDA2248035000	A	0.22	0.5	4	17.0
TDA3348035000	A	0.33	0.5	4	15.0
TDA4748035000	A	0.47	0.5	4	13.0
TDA6848035000	A	0.68	0.5	4	10.0
TDA1058035000	A	1.0	0.5	4	8.0
TDA1558035000	A	1.5	0.5	4	6.0
TDB2258035000	B	2.2	0.6	6	5.0
TDB3358035000	B	3.3	0.9	6	4.0
TDC4758035000	C	4.7	1.3	6	3.0
TDD6858035000	D	6.8	1.9	6	2.5
TDD1068035000	D	10	2.8	8	2.0
TDE1568035000	E	15	4.2	8	1.6
TDE2268035000	E	22	6.1	8	1.3
TDF3368035000	F	33	9.2	8	1.0
TDF4768035000	F	47	10.0	8	0.8
50 volt @ 85°C (33 volt, @ 125°C)					
TDA1048050000	A	0.1	0.5	4	26.0
TDA1548050000	A	0.15	0.5	4	21.0
TDA2248050000	A	0.22	0.5	4	17.0
TDA3348050000	A	0.33	0.5	4	15.0
TDA4748050000	A	0.47	0.5	4	13.0
TDA6848050000	A	0.68	0.5	4	10.0
TDB1058050000	B	1.0	0.5	4	8.0
TDC1558050000	C	1.5	0.6	4	6.0
TDC2258050000	C	2.2	0.8	6	3.5
TDD3358050000	D	3.3	1.3	6	3.0
TDD4758050000	D	4.7	1.8	6	2.5
TDE6858050000	E	6.8	2.7	6	2.0
TDE1068050000	E	10	4.0	8	1.6
TDF1568050000	F	15	6.0	8	1.2
TDF2268050000	F	22	8.8	8	1.0

NOTE: All $\#016000$ to ambient temperature of +20°C measured at 120Hz, 0.5V rms unless otherwise stated
 → insert capacitance tolerance: K for $\pm 10\%$ and M for $\pm 20\%$
 → insert wire length see page 8
 → insert format: 1, for pitch 2.54mm; format 2, for pitch 3.06mm
 → insert Bulk: Code B or Ammo pack: Code T

TD Series

Tantalum Solid Electrolytic Capacitors Dipped Type (Epoxy-Coated) Packaging of bead tantalum capacitors

Quantity per bag: Code B

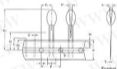
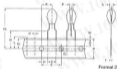
The capacity of the plastic bags depends on

CASE SIZE FORMAT	Qty per bag (cut ≤ 7mm)
From A to B	1000
From C to D	1000
From E to F	500

CASE SIZE FORMAT	Qty per bag (cut ≤ 18mm)
From A to B	1000
From C to D	500
From E to F	500

TAPE & AMMO PACKING (conform to: IEC286-2) Code T.

Tape & Ammo Packing (conform to: IEC286 -2)



Item	Code	Dimension (mm)
Carrier tape width	W	18.0 ^{+0.10} / _{-0.15}
Hold down tape width	W ₁	6.0 ± 0.5
Hold down tape position	W ₂	1.0max
Feed hole diameter	D	4.0 ± 0.2
Feed hole pitch	P	12.7 ± 0.3
Hole center to lead	P ₁	Format 1: 5.06 ± 0.7
		Format 2: 3.65 ± 0.7
Hole center to component center	P	6.35 ± 1.0
Lead wire clench height	H	16 ± 0.5
Hole position	H1	9.0 ± 0.5
Base of component height	H ₂	0.8min
Component height	H ₃	32.2max
Component alignment	ΔP	0 ± 1.3
	Δh	0 ± 2.0
Lead spacing	S	'S' wires: 2.5 ^{+0.10} / _{-0.15}
		'B' wires: 5.0 ^{+0.10} / _{-0.15}
Lead diameter	d	0.5 ± 0.06
length of snipped lead	L	11.0max
Carrier tape thickness	T	0.5 ± 0.1

Case Code	A-B	C-D	E-F
QTY. (PCS/box)	2500	2000	1000

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 服務力電子(深圳) 86-755-83286197
<http://www.100y.com.tw>