

TAJ Series



Low Profile



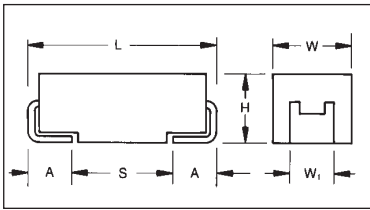
Five additional case sizes are available in the TAJ range offering low profile solid tantalum chip capacitors. Designed for applications where maximum height of components above or below board are of prime consideration, this height of 1.2,

1.5 and 2.0mm equates to that of a standard integrated circuit package after mounting. The S&T footprints are identical to the A&B case size parts and the W&Y footprints to C&D case size parts.

CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H Max.	W ₁ ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
F*	6032-20	6.00 (0.236)	3.20 (0.126)	2.00 (0.079)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
G	3216	3.20 (0.126)	1.60 (0.063)	1.50 (0.059)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
H	3528-12	3.50 (0.138)	2.80 (0.110)	1.50 (0.059)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
K*	3216-10	3.20 (0.126)	1.60 (0.063)	1.00 (0.039)	1.20 (0.047)	0.80 (0.031)	0.40 (0.016)
P	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059)	1.0±0.1 (0.039±0.004)	0.50 (0.020)	0.85 (0.033)
R*	2012-12	2.05 (0.081)	1.30 (0.051)	1.20 (0.047)	1.0±0.1 (0.039±0.004)	0.50 (0.020)	0.70 (0.028)
S**	3216-12	3.20 (0.126)	1.60 (0.063)	1.20 (0.047)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
T**	3528-12	3.50 (0.138)	2.80 (0.110)	1.20 (0.047)	2.20 (0.087)	0.80 (0.031)	2.00 (0.079)
W**	6032-15	6.00 (0.236)	3.20 (0.126)	1.50 (0.059)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
Y**	7343-20	7.30 (0.287)	4.30 (0.169)	2.00 (0.079)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
X**	7343-15	7.30 (0.287)	4.30 (0.169)	1.50 (0.059)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

* 0805 Footprint Compatible
 ** Low Profile Versions of A & B & C & D Case, respectively
 W₁ dimension applies to the termination width for A dimensional area only.



For part marking see page 164

HOW TO ORDER

TAJ

Type

Y

Case Size
See table above

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Capacitance Code
pF code: 1st two digits represent significant figures
3rd digit represents multiplier (number of zeros to follow)

M

Tolerance
K=±10%
M=±20%

010

Rated DC Voltage
002=2.5Vdc
004=4Vdc
006=6.3Vdc
010=10Vdc
016=16Vdc
020=20Vdc
025=25Vdc
035=35Vdc
050=50Vdc

R

Packaging
R = 7" T/R
(Lead Free since production date 1/1/04)
S = 13" T/R
(Lead Free since production date 1/1/04)
A = Gold Plating
7" Reel
B = Gold Plating
13" Reel

**

Additional characters may be added for special requirements

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C									
Capacitance Range:	0.1 µF to 1000 µF									
Capacitance Tolerance:	±10%; ±20%									
Rated Voltage (V _R)	≧ +85°C:	2.5	4	6.3	10	16	20	25	35	50
Category Voltage (V _C)	≧ +125°C:	1.7	2.7	4	7	10	13	17	23	33
Surge Voltage (V _S)	≧ +85°C:	3.3	5.2	8	13	20	26	32	46	65
Surge Voltage (V _S)	≧ +125°C:	2.2	3.4	5	8	13	16	20	28	40
Temperature Range:	-55°C to +125°C									
Reliability:	1% per 1000 hours at 85°C, V _R with 0.1Ω/V series impedance, 60% confidence level									
	Meets requirements of AEC-Q200									



CAPACITANCE AND VOLTAGE RANGE, V_R (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated voltage DC (V_R) to 85°C								
μF	Code	2.5V (e)	4V (G)	6.3V (J)	10V (A)	16V (C)	20V (D)	25V (E)	35V (V)	50V (T)
0.10	104						R/S		R/S	S
0.15	154						R/S	R	R/S	S
0.22	224						R/S	R	R/S	S
0.33	334						R/S	R	R/S	S/T
0.47	474						R/S	R/S	R/S/T	S/T
0.68	684					R/S	R/S/T	R/S	R/S/T	S/T
1.0	105				R/S	R/S/T	R/S/T	P/R/S	P/S/T	W
1.5	155			R/S	R/S	R/S	P/R/S/T	P/S/T	T	W
2.2	225		R/S	R/S	R/S	R/S/T	P/S/T	T	T	
3.3	335		R/S	R/S	R/S/T	R/S/T	T	T/W	W	Y
4.7	475	R	R/S	R/S/T	R/S/T	K/P/S/T	T	T/W	W	Y
6.8	685	R	R/S/T	R/S/T	P/R/S/T	S/T	T	W	Y	Y
10	106	R/S	R/S/T	P/R/S/T	K/P ^(M) /R ^(M) /S/T	T/W	W	W	XY	
15	156	R	R/S/T	K/P/R/S/T	S/T/W	T ^(M) /W	W	Y	Y	
22	226	P/R	K/P/R/S/T	K/P ^(M) /S/T/W	T/W	W	W/Y	Y	Y	
33	336	K/P/S	K/P ^(M) /S/T/W	T/W	W	W/Y	XY	Y		
47	476	P ^(M) /S	T/W	T/W	W/Y	W/X/Y	XY			
68	686	T	T/W	W	W/Y	F/X/Y	Y			
100	107	T/W	T ^(M) /W	W/Y	W/X/Y	F ^(M) /Y				
150	157	T ^(M) /W	W/Y	W/X/Y	F/X ^(M) /Y	Y ^(M)				
220	227	W/Y	W/X/Y	F/X/Y	Y					
330	337	W ^(M) /Y	F/X/Y	Y						
470	477	F/Y	Y							
680	687	Y	Y ^(M)							
1000	108	Y ^(M)								

Released codes ^(M tolerance only)

Developmental Ratings - subject to change.

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TAJR475*002#	R	4.7	2.5	0.5	6	20
TAJR685*002#	R	6.8	2.5	0.5	6	20
TAJR106*002#	R	10	2.5	0.5	8	4.5
TAJS106*002#	S	10	2.5	0.5	6	8
TAJR156*002#	R	15	2.5	0.5	8	4.1
TAJP226*002#	P	22	2.5	0.5	8	3.5
TAJR226*002#	R	22	2.5	0.5	8	3.8
TAJK336*002#	K	33	2.5	0.8	8	1.7
TAJP336*002#	P	33	2.5	0.7	8	3.5
TAJS336*002#	S	33	2.5	0.7	8	1.5
TAJP476M002#	P	47	2.5	1.2	12	3.2
TAJS476*002#	S	47	2.5	1.2	8	1.6
TAJT686*002#	T	68	2.5	1.4	8	1.5
TAJT107*002#	T	100	2.5	2.5	15	1.3
TAJW107*002#	W	100	2.5	2.5	8	0.4
TAJT157M002#	T	150	2.5	3.8	18	1.2
TAJW157*002#	W	150	2.5	3.8	8	0.3
TAJW227*002#	W	220	2.5	5.5	8	0.3
TAJY227*002#	Y	220	2.5	5.5	8	0.3
TAJW337M002#	W	330	2.5	8.2	12	0.3
TAJY337*002#	Y	330	2.5	8.2	8	0.3
TAJF477*002#	F	470	2.5	11.8	12	0.3
TAJY477*002#	Y	470	2.5	11	12	0.2
TAJY687*002#	Y	680	2.5	17	12	0.2
TAJY108M002#	Y	108	2.5	25	30	0.2
TAJR225*004#	R	2.2	4	0.5	6	25
TAJS225*004#	S	2.2	4	0.5	6	25
TAJR335*004#	R	3.3	4	0.5	6	20
TAJS335*004#	S	3.3	4	0.5	6	18
TAJR475*004#	R	4.7	4	0.5	6	12
TAJS475*004#	S	4.7	4	0.5	6	10
TAJR685*004#	R	6.8	4	0.5	6	5.2
TAJS685*004#	S	6.8	4	0.5	6	8
TAJT685*004#	T	6.8	4	0.5	6	6
TAJR106*004#	R	10	4	0.5	6	7
TAJS106*004#	S	10	4	0.5	6	6
TAJT106*004#	T	10	4	0.6	6	5
TAJR156*004#	R	15	4	0.6	8	4
TAJS156*004#	S	15	4	0.6	8	4
TAJT156*004#	T	15	4	0.6	6	2
TAJK226*004#	K	22	4	0.9	8	1.8
TAJP226*004#	P	22	4	0.9	8	5
TAJR226*004#	R	22	4	0.9	8	3.8
TAJS226*004#	S	22	4	0.9	8	3.5
TAJT226*004#	T	22	4	0.9	6	1.9
TAJK336*004#	K	33	4	1.3	10	1.7
TAJP336M004#	P	33	4	1.3	8	3.4
TAJS336*004#	S	33	4	1.3	8	1.7
TAJT336*004#	T	33	4	1.3	6	1.7
TAJW336*004#	W	33	4	1.3	6	0.6
TAJT476*004#	T	47	4	1.9	10	2
TAJW476*004#	W	47	4	1.9	6	0.5
TAJT686*004#	T	68	4	2.7	15	1.5
TAJW686*004#	W	68	4	2.7	6	0.4
TAJT107M004#	T	100	4	4	14	1.4
TAJW107*004#	W	100	4	4	6	1.3
TAJW157*004#	W	150	4	6	6	1.3
TAJY157*004#	Y	150	4	6	6	0.4
TAJW227*004#	W	220	4	8.8	8	1.2
TAJX227*004#	X	220	4	8.8	8	0.9
TAJY227*004#	Y	220	4	8.8	8	0.3
TAJF337*004#	F	330	4	13.2	10	0.3
TAJX337*004#	X	330	4	13.2	8	0.1
TAJY477*004#	Y	470	4	18.8	14	0.9
TAJY687M004#	Y	680	4	27.2	25	0.2

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TAJR155*006#	R	1.5	6.3	0.5	6	2
TAJS155*006#	S	1.5	6.3	0.5	6	25
TAJR225*006#	R	2.2	6.3	0.5	6	20
TAJS225*006#	S	2.2	6.3	0.5	6	18
TAJR335*006#	R	3.3	6.3	0.5	6	12
TAJS335*006#	S	3.3	6.3	0.5	6	9
TAJR475*006#	R	4.7	6.3	0.5	6	7
TAJS475*006#	S	4.7	6.3	0.5	6	7.5
TAJT475*006#	T	4.7	6.3	0.5	6	6
TAJR685*006#	R	6.8	6.3	0.5	8	7
TAJS685*006#	S	6.8	6.3	0.5	6	2.6
TAJT685*006#	T	6.8	6.3	0.5	6	5
TAJR106*006#	R	10	6.3	0.6	8	6
TAJS106*006#	S	10	6.3	0.6	6	6
TAJT106*006#	T	10	6.3	0.6	6	4
TAJK156*006#	K	15	6.3	0.9	6	2
TAJP156*006#	P	15	6.3	0.9	8	3.5
TAJR156*006#	R	15	6.3	0.9	8	4.1
TAJS156*006#	S	15	6.3	0.9	8	4
TAJT156*006#	T	15	6.3	0.9	6	3.5
TAJK226*006#	K	22	6.3	1.3	10	1.8
TAJP226M006#	P	22	6.3	1.3	8	3.8
TAJS226*006#	S	22	6.3	1.3	10	1.8
TAJT226*006#	T	22	6.3	1.4	8	2.5
TAJW226*006#	W	22	6.3	1.3	6	0.6
TAJT336*006#	T	33	6.3	2.1	10	2.5
TAJW336*006#	W	33	6.3	2.1	6	1.8
TAJT476*006#	T	47	6.3	2.8	10	1.6
TAJW476*006#	W	47	6.3	3	6	1.5
TAJW686*006#	W	68	6.3	4.3	6	1.5
TAJY107*006#	Y	100	6.3	6.3	6	0.9
TAJW107*006#	W	100	6.3	6.3	6	0.9
TAJW157*006#	W	157	6.3	9	8	0.3
TAJX157*006#	X	150	6.3	9.5	6	0.9
TAJY157*006#	Y	150	6.3	9	6	0.4
TAJF227*006#	F	220	6.3	13.2	10	0.3
TAJX227*006#	X	220	6.3	13.2	8	0.3
TAJY227*006#	Y	220	6.3	13.9	10	0.9
TAJY337*006#	Y	330	6.3	20.8	8	0.9
TAJR105*010#	R	1	10	0.5	4	25
TAJS105*010#	S	1	10	0.5	4	25
TAJR106M010#	R	10	10	1	20	6
TAJR155*010#	R	1.5	10	0.5	6	20
TAJS155*010#	S	1.5	10	0.5	6	20
TAJR225*010#	R	2.2	10	0.5	6	15
TAJS225*010#	S	2.2	10	0.5	6	12
TAJR335*010#	R	3.3	10	0.5	6	8
TAJS335*010#	S	3.3	10	0.5	6	8
TAJT335*010#	T	3.3	10	0.5	6	6
TAJR475*010#	R	4.7	10	0.5	6	9
TAJS475*010#	S	4.7	10	0.5	6	5
TAJT475*010#	T	4.7	10	0.5	6	5
TAJP685*010#	P	6.8	10	0.7	6	4
TAJR685*010#	R	6.8	10	0.7	6	5.2
TAJS685*010#	S	6.8	10	0.7	6	4
TAJT685*010#	T	6.8	10	0.7	6	4
TAJK106*010#	K	10	10	1	6	2.2
TAJP106M010#	P	10	10	1	8	6
TAJS106*010#	S	10	10	1	8	4
TAJT106*010#	T	10	10	1	6	3
TAJS156*010#	S	15	10	1.5	6	2
TAJT156*010#	T	15	10	1.5	8	2.8
TAJW156*010#	W	15	10	1.5	6	0.7
TAJT226*010#	T	22	10	2.2	8	2.2
TAJW226*010#	W	22	10	2.2	6	0.6

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

* Insert K for ±10% and M for ±20% Capacitance Tolerance # Standard Plating – Insert R for 7" reel and S for 13" reel
Gold Plating – Insert A for 7" reel and B for 13" reel

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.



RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TAJW336*010#	W	33	10	3.3	6	1.6
TAJW476*010#	W	47	10	4.7	6	1.4
TAJY476*010#	Y	47	10	4.7	6	0.5
TAJY686*010#	Y	68	10	6.8	6	0.9
TAJW686*010#	W	68	10	6.8	6	1.3
TAJW107*010#	W	100	10	10	6	0.4
TAJX107*010#	X	100	10	10	8	0.9
TAJY107*010#	Y	100	10	10	6	0.9
TAJF157*010#	F	150	10	15	10	0.3
TAJX157M010#	X	150	10	15	6	0.3
TAJY157*010#	Y	150	10	15	6	1.2
TAJY227*010#	Y	220	10	22	10	0.5
TAJR684*016#	R	0.68	16	0.5	4	25
TAJS684*016#	S	0.68	16	0.5	4	25
TAJR105*016#	R	1	16	0.5	4	20
TAJS105*016#	S	1	16	0.5	4	15
TAJT105*016#	T	1	16	0.5	4	5
TAJR155*016#	R	1.5	16	0.5	6	10
TAJS155*016#	S	1.5	16	0.5	6	12
TAJR225*016#	R	2.2	16	0.5	6	6.5
TAJS225*016#	S	2.2	16	0.5	6	6
TAJT225*016#	T	2.2	16	0.5	6	6.5
TAJR335*016#	R	3.3	16	0.5	8	5
TAJS335*016#	S	3.3	16	0.5	6	5
TAJT335*016#	T	3.3	16	0.5	6	5
TAJK475*016#	K	4.7	16	0.8	6	3.1
TAJP475*016#	P	4.7	16	0.8	8	5
TAJS475*016#	S	4.7	16	0.8	8	4.5
TAJT475*016#	T	4.7	16	0.8	6	3.1
TAJS685*016#	S	6.8	16	1.1	8	2.4
TAJT685*016#	T	6.8	16	1.1	6	3.5
TAJT106*016#	T	10	16	1.6	8	2.2
TAJW106*016#	W	10	16	1.6	6	2
TAJT156M016#	T	15	16	2.4	6	2
TAJW156*016#	W	15	16	2.4	6	0.7
TAJW226*016#	W	22	16	3.5	6	1.6
TAJW336*016#	W	33	16	5.3	6	1.5
TAJY336*016#	Y	33	16	5.3	6	0.9
TAJW476*016#	W	47	16	7.5	6	0.4
TAJX476*016#	X	47	16	7.5	6	0.9
TAJY476*016#	Y	47	16	7.5	6	0.7
TAJF686*016#	F	68	16	10.9	10	0.4
TAJX686*016#	X	68	16	10.9	8	0.6
TAJY686*016#	Y	68	16	10.9	6	0.9
TAJF107M016#	F	100	16	16	10	0.4
TAJY107*016#	Y	10	16	16	8	0.9
TAJ157M016#	Y	150	16	24	15	0.3
TAJR104*020#	R	0.1	20	0.5	4	25
TAJS104*020#	S	0.1	20	0.5	4	25
TAJR154*020#	R	0.15	20	0.5	4	25
TAJS154*020#	S	0.15	20	0.5	4	25
TAJR224*020#	R	0.22	20	0.5	4	25
TAJS224*020#	S	0.22	20	0.5	4	25
TAJR334*020#	R	0.33	20	0.5	4	25
TAJS334*020#	S	0.33	20	0.5	4	25
TAJR474*020#	R	0.47	20	0.5	4	25
TAJS474*020#	S	0.47	20	0.5	4	25
TAJR684*020#	R	0.68	20	0.5	4	20
TAJS684*020#	S	0.68	20	0.5	4	25
TAJT684*020#	T	0.68	20	0.5	4	15
TAJR105*020#	R	1	20	0.5	4	20
TAJS105*020#	S	1	20	0.5	4	12
TAJT105*020#	T	1	20	0.5	4	9
TAJP155*020#	P	1.5	20	0.5	6	9.6

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TAJR155*020#	R	1.5	20	0.5	6	9.6
TAJS155*020#	S	1.5	20	0.5	6	5
TAJT155*020#	T	1.5	20	0.5	6	6.5
TAJP225*020#	P	2.2	20	0.5	6	8.3
TAJS225*020#	S	2.2	20	0.5	6	3
TAJT225*020#	T	2.2	20	0.5	6	6
TAJT335*020#	T	3.3	20	0.7	6	3
TAJT475*020#	T	4.7	20	0.9	6	3
TAJT685*020#	T	6.8	20	1.4	6	2.6
TAJW106*020#	W	10	20	2	6	1.9
TAJW156*020#	W	15	20	3	6	1.7
TAJY226*020#	Y	22	20	4.4	6	0.9
TAJW226*020#	W	22	20	4.4	6	1.6
TAJX336*020#	X	33	20	6.6	6	0.5
TAJY336*020#	Y	33	20	6.6	6	0.5
TAJX476*020#	X	47	20	9.4	6	0.4
TAJY476*020#	Y	47	20	9.4	6	0.4
TAJY686*020#	Y	68	20	13.6	6	0.4
TAJR154*025#	R	0.15	25	0.5	4	24
TAJR224*025#	R	0.22	25	0.5	4	21
TAJR334*025#	R	0.33	25	0.5	4	17
TAJR474*025#	R	0.47	25	0.5	4	15
TAJS474*025#	S	0.47	25	0.5	4	14
TAJR684*025#	R	0.68	25	0.5	4	13
TAJS684*025#	S	0.68	25	0.5	4	10
TAJP105*025#	P	1	25	0.5	4	11
TAJR105*025#	R	1	25	0.5	4	8
TAJS105*025#	S	1	25	0.5	4	8
TAJP105*025#	P	1.5	25	0.5	6	9.6
TAJS155*025#	S	1.5	25	0.5	6	5.4
TAJT155*025#	T	1.5	25	0.5	6	5
TAJT225*025#	T	2.2	25	0.6	6	4.5
TAJT335*025#	T	3.3	25	0.8	6	3.5
TAJW335*025#	W	3.3	25	0.8	6	1.6
TAJT475*025#	T	4.7	25	1.2	6	3.1
TAJW475*025#	W	4.7	25	1.2	6	1.2
TAJW685*025#	W	6.8	25	1.7	6	2
TAJW106*025#	W	10	25	2.5	6	1.8
TAJY156*025#	Y	15	25	3.8	6	1
TAJY226*025#	Y	22	25	5.5	6	0.9
TAJY336*025#	Y	33	25	8.3	6	0.5
TAJR104*035#	R	0.1	35	0.5	4	29
TAJS104*035#	S	0.1	35	0.5	4	24
TAJR154*035#	R	0.15	35	0.5	4	24
TAJS154*035#	S	0.15	35	0.5	4	21
TAJR224*035#	R	0.22	35	0.5	4	21
TAJS224*035#	S	0.22	35	0.5	4	18
TAJR334*035#	R	0.33	35	0.5	4	17
TAJS334*035#	S	0.33	35	0.5	4	15
TAJR474*035#	R	0.47	35	0.5	4	15
TAJS474*035#	S	0.47	35	0.5	4	12
TAJT474*035#	T	0.47	35	0.5	4	10
TAJP684*035#	P	0.68	35	0.5	4	13
TAJS684*035#	S	0.68	35	0.5	4	8
TAJT684*035#	T	0.68	35	0.5	4	8
TAJP105*035#	P	1	35	0.5	4	11
TAJS105*035#	S	1	35	0.5	4	7.5
TAJT105*035#	T	1	35	5	4	6.5
TAJT155*035#	T	1.5	35	0.5	6	5.2
TAJT225*035#	T	2.2	35	0.8	6	4.2
TAJW335*035#	W	3.3	35	1.2	6	1.6
TAJW475*035#	W	4.7	35	1.6	6	2.2
TAJY685*035#	Y	6.8	35	2.3	6	0.9
TAJX106*035#	X	10	35	3.5	6	0.7

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

* Insert K for ±10% and M for ±20% Capacitance Tolerance # Standard Plating – Insert R for 7" reel and S for 13" reel # Gold Plating – Insert A for 7" reel and B for 13" reel

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TAJY106*035#	Y	10	35	3.5	6	1
TAJY156*035#	Y	15	35	5.3	6	0.6
TAJY226*035#	Y	22	35	7.7	6	0.5
TAJS104*050#	S	0.1	50	0.5	4	19
TAJS154*050#	S	0.15	50	0.5	4	16
TAJS224*050#	S	0.22	50	0.5	4	13
TAJS334*050#	S	0.33	50	0.5	4	11
TAJT334*050#	T	0.33	50	0.5	4	11
TAJS474*050#	S	0.47	50	0.5	4	9.5
TAJT474*050#	T	0.47	50	0.5	4	9.5
TAJW105*050#	W	1	50	0.5	6	4.4
TAJW155*050#	W	1.5	50	0.8	6	3.1
TAJY335*050#	Y	3.3	50	1.7	4	1.7
TAJY475*050#	Y	4.7	50	2.4	6	1.2
TAJY685*050#	Y	6.8	50	3.4	6	0.9