

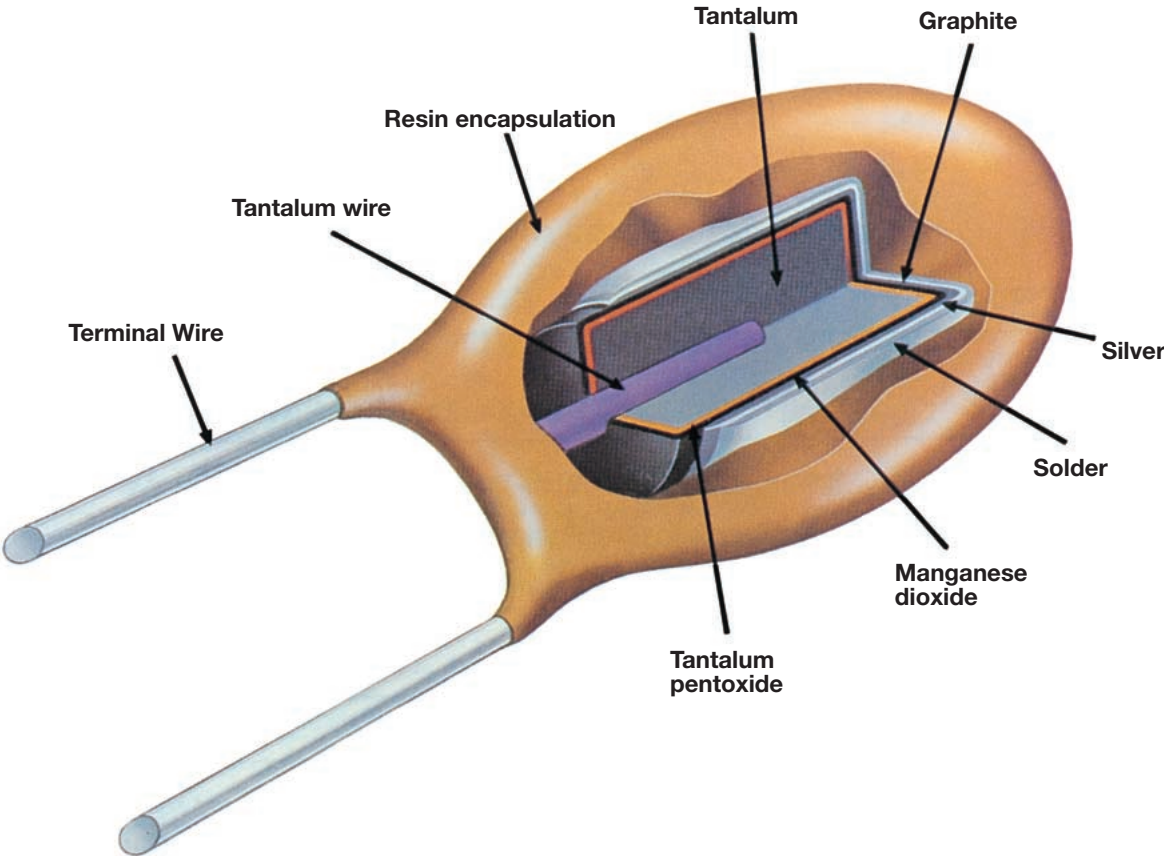
# Dipped Radial Capacitors



## Introduction

### SOLID TANTALUM RESIN DIPPED SERIES TAP

The TAP resin dipped series of miniature tantalum capacitors is available for individual needs in both commercial and professional applications. From computers to automotive to industrial, AVX has a dipped radial for almost any application.



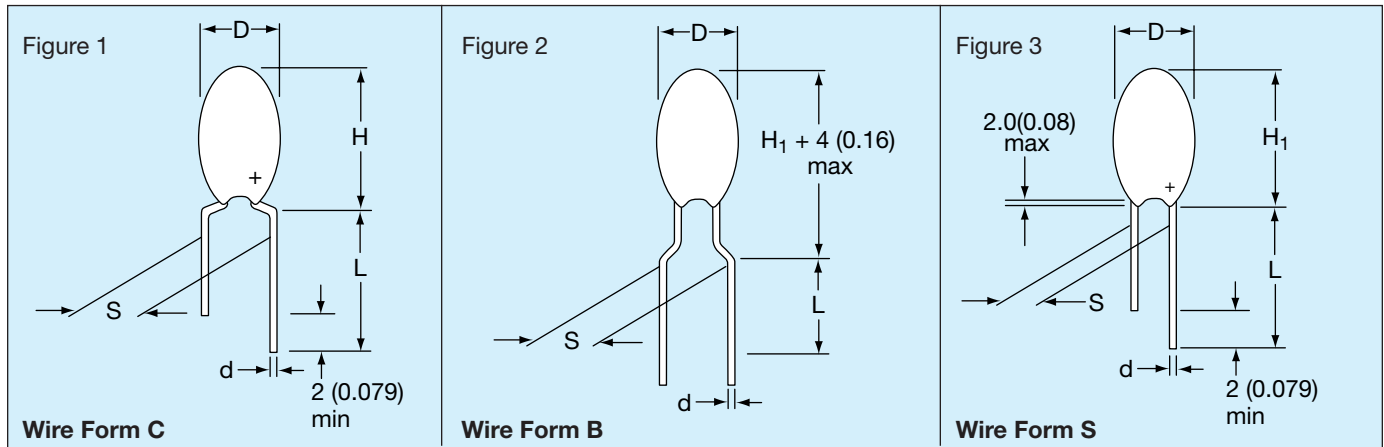
# Dipped Radial Capacitors



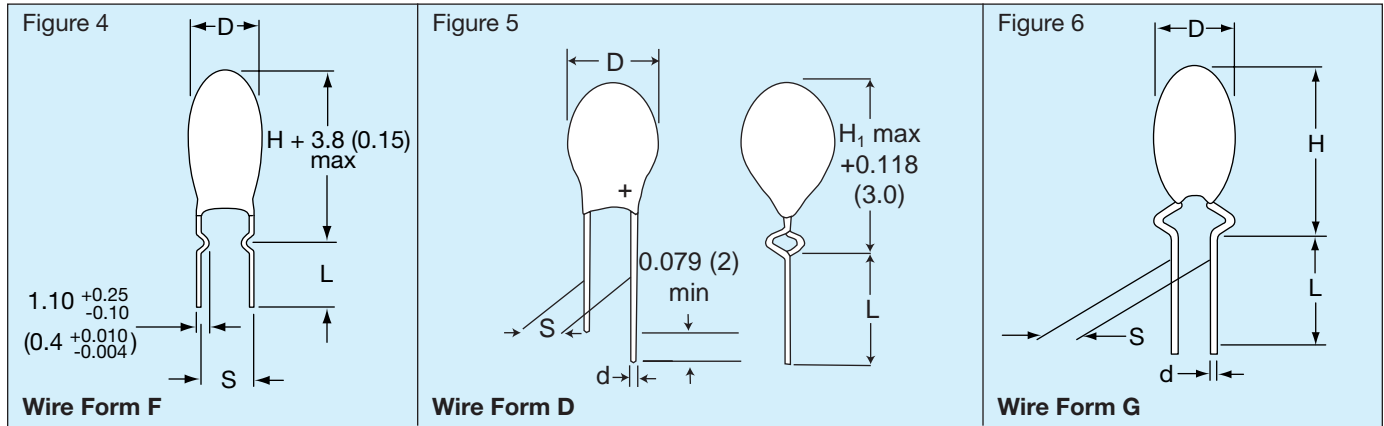
## Wire Form Outline

### SOLID TANTALUM RESIN DIPPED TAP

#### Preferred Wire Forms



#### Non-Preferred Wire Forms (Not recommended for new designs)



### DIMENSIONS

Wire Form	Figure	Case Size	L (see note 1)	S	d	Packaging Suffixes Available*
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#### Preferred Wire Forms

C	Figure 1	A - R*	16±4 (0.630±0.160)	5.0±1.0 (0.200±0.040)	0.5±0.05 (0.020±0.002)	CCS Bulk CRW Tape/Reel CRS Tape/Ammo
B	Figure 2	A - J*	16±4 (0.630±0.160)	5.0±1.0 (0.200±0.040)	0.5±0.05 (0.020±0.002)	BRW Tape/Reel BRS Tape/Ammo
S	Figure 3	A - J*	16±4 (0.630±0.160)	2.5±0.5 (0.100±0.020)	0.5±0.05 (0.020±0.002)	SCS Bulk SRW Tape/Reel SRS Tape/Ammo

#### Non-Preferred Wire Forms (Not recommended for new designs)

F	Figure 4	A - R	3.9±0.75 (0.155±0.030)	5.0±0.5 (0.200±0.020)	0.5±0.05 (0.020±0.002)	FCS Bulk
D	Figure 5	A - H*	16±4 (0.630±0.160)	2.5±0.75 (0.100±0.020)	0.5±0.05 (0.020±0.002)	DCS Bulk DTW Tape/Reel DTS Tape/Ammo
G	Figure 6	A - J	16±4 (0.630±0.160)	3.18±0.5 (0.125±0.020)	0.5±0.05 (0.020±0.002)	GSB Bulk
H	Similar to Figure 1	A - R	16±4 (0.630±0.160)	6.35±1.0 (0.250±0.040)	0.5±0.05 (0.020±0.002)	HSB Bulk

Notes: (1) Lead lengths can be supplied to tolerances other than those above and should be specified in the ordering information.

(2) For D, H, and H<sub>1</sub> dimensions, refer to individual product on following pages.

\* For case size availability in tape and reel, please refer to page 7-8.



# Dipped Radial Capacitors



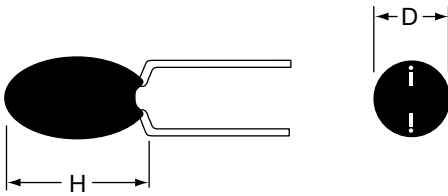
## TAP Series

### SOLID TANTALUM RESIN DIPPED CAPACITORS



TAP is a professional grade device manufactured with a flame retardant coating and featuring low leakage current and impedance, very small physical sizes and exceptional temperature stability. It is designed and conditioned to operate to +125°C (see page 27 for voltage derating above 85°C) and is available loose or taped and reeled for auto insertion. The 15 case sizes with wide capacitance and working voltage ranges means the TAP can accommodate almost any application.

Maximum Case Dimensions: millimeters (inches)			
Wire Case	C, F, G, H H	B, S, D *H <sub>1</sub>	D
A	8.5 (0.33)	7.0 (0.28)	4.5 (0.18)
B	9.0 (0.35)	7.5 (0.30)	4.5 (0.18)
C	10.0 (0.39)	8.5 (0.33)	5.0 (0.20)
D	10.5 (0.41)	9.0 (0.35)	5.0 (0.20)
E	10.5 (0.41)	9.0 (0.35)	5.5 (0.22)
F	11.5 (0.45)	10.0 (0.39)	6.0 (0.24)
G	11.5 (0.45)	10.0 (0.39)	6.5 (0.26)
H	12.0 (0.47)	10.5 (0.41)	7.0 (0.28)
J	13.0 (0.51)	11.5 (0.45)	8.0 (0.31)
K	14.0 (0.55)	12.5 (0.49)	8.5 (0.33)
L	14.0 (0.55)	12.5 (0.49)	9.0 (0.35)
M	14.5 (0.57)	13.0 (0.51)	9.0 (0.35)
N	16.0 (0.63)		9.0 (0.35)
P	17.0 (0.67)		10.0 (0.39)
R	18.5 (0.73)		10.0 (0.39)



### HOW TO ORDER

**TAP**

Type

**475**

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

**M**

**Capacitance Tolerance**  
K = ±10%  
M = ±20%  
(For J = ±5% tolerance, please consult factory)

**035**

Rated DC Voltage

**SCS**

Suffix indicating wire form and packaging (see page 3)

# Dipped Radial Capacitors



## TAP Series

### TECHNICAL SPECIFICATIONS

Technical Data:		All technical data relate to an ambient temperature of +25°C							
Capacitance Range:		0.1μF to 330μF							
Capacitance Tolerance:		±20%; ±10% (±5% consult your AVX representative for details)							
Rated Voltage DC (V <sub>R</sub> )	≤+85°C:	6.3	10	16	20	25	35	50	
Category Voltage (V <sub>C</sub> )	≤+125°C:	4	6.3	10	13	16	23	33	
Surge Voltage (V <sub>S</sub> )	≤+85°C:	8	13	20	26	33	46	65	
	≤+125°C:	5	9	12	16	21	28	40	
Temperature Range:		-55°C to +125°C							
Environmental Classification:		55/125/56 (IEC 68-2)							
Dissipation Factor:		≤0.04 for C <sub>R</sub> 0.1-1.5μF							
		≤0.06 for C <sub>R</sub> 2.2-6.8μF							
		≤0.08 for C <sub>R</sub> 10-68μF							
		≤0.10 for C <sub>R</sub> 100-330μF							
Reliability:		1% per 1000 hrs. at 85°C with 0.1Ω/V series impedance, 60% confidence level.							

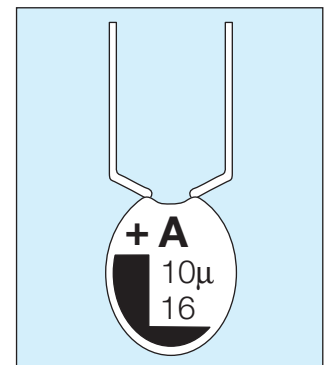
Capacitance Range (letter denotes case code)								
Capacitance		Rated voltage DC (V <sub>R</sub> )						
μF	Code	6.3V	10V	16V	20V	25V	35V	50V
0.1	104						A	A
0.15	154						A	A
0.22	224						A	A
0.33	334						A	A
0.47	474						A	A
0.68	684						A	B
1.0	105				A	A	A	C
1.5	155			A	A	A	A	D
2.2	225		A	A	A	A	B	E
3.3	335	A	A	A	B	B	C	F
4.7	475	A	A	B	C	C	E	G
6.8	685	A	B	C	D	D	F	H
10	106	B	C	D	E	E	F	J
15	156	C	D	E	F	F	H	K
22	226	D	E	F	H	H	K	L
33	336	E	F	F	J	J	M	
47	476	F	G	J	K	M	N	
68	686	G	H	L	N	N		
100	107	H	K	N	N			
150	157	K	N	N				
220	227	M	P	R				
330	337	P	R					

Values outside this standard range may be available on request.  
 AVX reserves the right to supply capacitors to a higher voltage rating, in the same case size, than that ordered.

### MARKING

Polarity, capacitance, rated DC voltage, and an "A" (AVX logo) are laser marked on the capacitor body which is made of flame retardant gold epoxy resin with a limiting oxygen index in excess of 30 (ASTM-D-2863).

- Polarity
- Capacitance
- Voltage
- AVX logo
- Tolerance code:
  - ±20% = Standard (no marking)
  - ±10% = "K" on reverse side of unit
  - ±5% = "J" on reverse side of unit



# Dipped Radial Capacitors



## TAP Series

### RATINGS AND PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance $\mu\text{F}$	DCL ( $\mu\text{A}$ ) Max.	DF % Max.	ESR max. ( $\Omega$ ) @ 100 kHz
<b>6.3 volt @ 85°C (4 volt @ 125°C)</b>					
TAP 335(+006	A	3.3	0.5	6	13.0
TAP 475(+006	A	4.7	0.5	6	10.0
TAP 685(+006	A	6.8	0.5	6	8.0
TAP 106(+006	B	10	0.5	8	6.0
TAP 156(+006	C	15	0.8	8	5.0
TAP 226(+006	D	22	1.1	8	3.7
TAP 336(+006	E	33	1.7	8	3.0
TAP 476(+006	F	47	2.4	8	2.0
TAP 686(+006	G	68	3.4	8	1.8
TAP 107(+006	H	100	5.0	10	1.6
TAP 157(+006	K	150	7.6	10	0.9
TAP 227(+006	M	220	11.0	10	0.9
TAP 337(+006	P	330	16.6	10	0.7
<b>10 volt @ 85°C (6.3 volt @ 125°C)</b>					
TAP 225(+010	A	2.2	0.5	6	13.0
TAP 335(+010	A	3.3	0.5	6	10.0
TAP 475(+010	A	4.7	0.5	6	8.0
TAP 685(+010	B	6.8	0.5	6	6.0
TAP 106(+010	C	10	0.8	8	5.0
TAP 156(+010	D	15	1.2	8	3.7
TAP 226(+010	E	22	1.7	8	2.7
TAP 336(+010	F	33	2.6	8	2.1
TAP 476(+010	G	47	3.7	8	1.7
TAP 686(+010	H	68	5.4	8	1.3
TAP 107(+010	K	100	8.0	10	1.0
TAP 157(+010	N	150	12.0	10	0.8
TAP 227(+010	P	220	17.6	10	0.6
TAP 337(+010	R	330	20.0	10	0.5
<b>16 volt @ 85°C (10 volt @ 125°C)</b>					
TAP 155(+016	A	1.5	0.5	4	10.0
TAP 225(+016	A	2.2	0.5	6	8.0
TAP 335(+016	A	3.3	0.5	6	6.0
TAP 475(+016	B	4.7	0.6	6	5.0
TAP 685(+016	C	6.8	0.8	6	4.0
TAP 106(+016	D	10	1.2	8	3.2
TAP 156(+016	E	15	1.9	8	2.5
TAP 226(+016	F	22	2.8	8	2.0
TAP 336(+016	F	33	4.2	8	1.6
TAP 476(+016	J	47	6.0	8	1.3
TAP 686(+016	L	68	8.7	8	1.0
TAP 107(+016	N	100	12.8	10	0.8
TAP 157(+016	N	150	19.2	10	0.6
TAP 227(+016	R	220	20.0	10	0.5
<b>20 volt @ 85°C (13 volt @ 125°C)</b>					
TAP 105(+020	A	1.0	0.5	4	10.0
TAP 155(+020	A	1.5	0.5	4	9.0
TAP 225(+020	A	2.2	0.5	6	7.0
TAP 335(+020	B	3.3	0.5	6	5.5
TAP 475(+020	C	4.7	0.7	6	4.5
TAP 685(+020	D	6.8	1.0	6	3.6
TAP 106(+020	E	10	1.6	8	2.9
TAP 156(+020	F	15	2.4	8	2.3
TAP 226(+020	H	22	3.5	8	1.8

AVX Part No.	Case Size	Capacitance $\mu\text{F}$	DCL ( $\mu\text{A}$ ) Max.	DF % Max.	ESR max. ( $\Omega$ ) @ 100 kHz
<b>20 volt @ 85°C (13 volt @ 125°C) continued</b>					
TAP 336(+020	J	33	5.2	8	1.4
TAP 476(+020	K	47	7.5	8	1.2
TAP 686(+020	N	68	10.8	8	0.9
TAP 107(+020	N	100	16.0	10	0.6
<b>25 volt @ 85°C (16 volt @ 125°C)</b>					
TAP 105(+025	A	1.0	0.5	4	10.0
TAP 155(+025	A	1.5	0.5	4	8.0
TAP 225(+025	A	2.2	0.5	6	6.0
TAP 335(+025	B	3.3	0.6	6	5.0
TAP 475(+025	C	4.7	0.9	6	4.0
TAP 685(+025	D	6.8	1.3	6	3.1
TAP 106(+025	E	10	2.0	8	2.5
TAP 156(+025	F	15	3.0	8	2.0
TAP 226(+025	H	22	4.4	8	1.5
TAP 336(+025	J	33	6.6	8	1.2
TAP 476(+025	M	47	9.4	8	1.0
TAP 686(+025	N	68	13.6	8	0.8
<b>35 volt @ 85°C (23 volt @ 125°C)</b>					
TAP 104(+035	A	0.1	0.5	4	26.0
TAP 154(+035	A	0.15	0.5	4	21.0
TAP 224(+035	A	0.22	0.5	4	17.0
TAP 334(+035	A	0.33	0.5	4	15.0
TAP 474(+035	A	0.47	0.5	4	13.0
TAP 684(+035	A	0.68	0.5	4	10.0
TAP 105(+035	A	1.0	0.5	4	8.0
TAP 155(+035	A	1.5	0.5	4	6.0
TAP 225(+035	B	2.2	0.6	6	5.0
TAP 335(+035	C	3.3	0.9	6	4.0
TAP 475(+035	E	4.7	1.3	6	3.0
TAP 685(+035	F	6.8	1.9	6	2.5
TAP 106(+035	F	10	2.8	8	2.0
TAP 156(+035	H	15	4.2	8	1.6
TAP 226(+035	K	22	6.1	8	1.3
TAP 336(+035	M	33	9.2	8	1.0
TAP 476(+035	N	47	10.0	8	0.8
<b>50 volt @ 85°C (33 volt @ 125°C)</b>					
TAP 104(+050	A	0.1	0.5	4	26.0
TAP 154(+050	A	0.15	0.5	4	21.0
TAP 224(+050	A	0.22	0.5	4	17.0
TAP 334(+050	A	0.33	0.5	4	15.0
TAP 474(+050	A	0.47	0.5	4	13.0
TAP 684(+050	B	0.68	0.5	4	10.0
TAP 105(+050	C	1.0	0.5	4	8.0
TAP 155(+050	D	1.5	0.6	4	6.0
TAP 225(+050	E	2.2	0.8	6	3.5
TAP 335(+050	F	3.3	1.3	6	3.0
TAP 475(+050	G	4.7	1.8	6	2.5
TAP 685(+050	H	6.8	2.7	6	2.0
TAP 106(+050	J	10	4.0	8	1.6
TAP 156(+050	K	15	6.0	8	1.2
TAP 226(+050	L	22	8.8	8	1.0

(\*) Insert capacitance tolerance code; M for  $\pm 20\%$ , K for  $\pm 10\%$  and J for  $\pm 5\%$

NOTE: Voltage ratings are minimum values. AVX reserves the right to supply higher voltage ratings in the same case size.