

# Molded Axial Capacitors



## TAR Series

### SOLID TANTALUM MOLDED AXIAL LEADED CAPACITORS



**TAR:** Designed for use in miniature and subminiature circuit applications.

1. Precision molded and taped and reeled for use in high speed automatic insertion applications.
2. Suitable for decoupling, blocking, by-passing and filtering in computers, data processing, communications and other equipment.
3. Available in four case sizes.
4. Tapered nose identifies positive polarity.
5. Capacitance, tolerance, rated voltage and polarity are marked onto the capacitor body.
6. See page 98 for packaging quantities.

### CASE DIMENSIONS: millimeters (inches)

Case Size	L ±0.25 (0.010)	D <sub>1</sub> ±0.25 (0.010)	d ±0.05 (0.002)	Typical Weight g
Q	6.35 (0.250)	2.16 (0.085)	0.50 (0.020)	0.20
R	7.40 (0.290)	2.50 (0.100)	0.50 (0.020)	0.25
S	8.60 (0.340)	4.30 (0.170)	0.50 (0.020)	0.52
W	10.4 (0.410)	4.30 (0.170)	0.50 (0.020)	0.53

### HOW TO ORDER

**TAR**

Type

**R**

Case Size

**335**

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%

**015**

Rated DC Voltage

\*Not recommended for new designs

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### TECHNICAL SPECIFICATIONS

Technical Data:		All technical data relate to an ambient temperature of +25°C							
Capacitance Range:		0.1 $\mu$ F to 68 $\mu$ F							
Capacitance Tolerance:		$\pm$ 20%; $\pm$ 10%							
Rated Voltage DC ( $V_R$ )	$\leq$ +85°C:	4	6.3	10	15	20	25	35	50
Category Voltage ( $V_C$ )	$\leq$ +125°C:	2.7	4	6.3	10	13	17	23	33
Surge Voltage ( $V_S$ )	$\leq$ +85°C:	5.2	8	13	20	26	33	46	65
	$\leq$ +125°C:	3.5	5	9	12	16	21	28	40
Temperature Range:		-55°C to +125°C							
Environmental Classification:		55/125/56 (IEC 68-2)							
Dissipation Factor:		See part number table							

Capacitance Range (letter denotes case size)								
Capacitance $\mu$ F	Rated voltage DC ( $V_R$ )							
	4V	6.3V	10V	15V	20V	25V	35V	50V
0.1							Q	Q
0.15							Q	Q
0.22							Q	Q
0.33						Q	Q	R
0.47						Q	R	R
0.68							R	R
1.0			Q	Q	Q	Q	R	R
1.5				Q	Q	R	R	S
2.2				Q	R	R	S	S
3.3		Q	Q	R	R	R	S	W
4.7	Q	Q	R	R	R	S	S	W
6.8	Q	R	R	R	S	S	W	
10	R	R	R	S	S	S	W	
15	R	R	S	S	W	W		
22	R	S	S	W	W			
33	S	S	W	W				
47	S	W	W					
68	W	W						

Values outside this standard range may be available on request without appropriate release or qualification.

AVX reserves the right to supply capacitors to a tighter specification than that ordered.

### MARKING

- Polarity
- Capacitance
- Date code
- Tolerance
- Voltage

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### 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>4 volt @ 85°C (2.7 volt @ 125°C)</b>					
TARQ475(+)*004	Q	4.7	0.5	8	12
TARQ685(+)*004	Q	6.8	0.5	8	10
TARR106(+)*004	R	10	0.5	8	10
TARR156(+)*004	R	15	0.5	8	8.0
TARR226(+)*004	R	22	0.7	8	6.0
TARS336(+)*004	S	33	1.1	8	5.0
TARS476(+)*004	S	47	1.5	8	3.5
TARW686(+)*004	W	68	2.2	8	2.5
<b>6.3 volt @ 85°C (4 volt @ 125°C)</b>					
TARQ335(+)*006	Q	3.3	0.5	4	14
TARQ475(+)*006	Q	4.7	0.5	4	10
TARR685(+)*006	R	6.8	0.5	6	8.0
TARR106(+)*006	R	10	0.5	6	6.0
TARR156(+)*006	R	15	0.7	6	5.0
TARS226(+)*006	S	22	1.1	6	3.7
TARS336(+)*006	S	33	1.5	6	3.0
TARW476(+)*006	W	47	2.3	6	2.0
TARW686(+)*006	W	68	3.3	6	1.8
<b>10 volt @ 85°C (7 volt @ 125°C)</b>					
TARQ225(+)*010	Q	2.2	0.5	4	14
TARQ335(+)*010	Q	3.3	0.5	4	10
TARR475(+)*010	R	4.7	0.5	4	8.0
TARR685(+)*010	R	6.8	0.5	6	6.0
TARR106(+)*010	R	10	0.8	6	5.0
TARS156(+)*010	S	15	1.2	6	3.7
TARS226(+)*010	S	22	1.5	6	2.7
TARW336(+)*010	W	33	2.6	6	2.1
TARW476(+)*010	W	47	3.8	6	1.7
<b>15 volt @ 85°C (10 volt @ 125°C)</b>					
TARQ155(+)*015	Q	1.5	0.5	4	14
TARQ225(+)*015	Q	2.2	0.5	4	8.0
TARR335(+)*015	R	3.3	0.5	4	6.0
TARR475(+)*015	R	4.7	0.6	4	5.0
TARR685(+)*015	R	6.8	0.8	6	4.0
TARS106(+)*015	S	10	1.2	6	3.2
TARS156(+)*015	S	15	1.5	6	2.5
TARW226(+)*015	W	22	2.6	6	2.0
TARW336(+)*015	W	33	4.0	6	1.6
<b>20 volt @ 85°C (13 volt @ 125°C)</b>					
TARQ105(+)*020	Q	1.0	0.5	4	18
TARQ155(+)*020	Q	1.5	0.5	4	12
TARR225(+)*020	R	2.2	0.5	4	7.0
TARR335(+)*020	R	3.3	0.5	4	5.5
TARR475(+)*020	R	4.7	0.8	4	4.5
TARS685(+)*020	S	6.8	1.1	6	3.7
TARS106(+)*020	S	10	1.6	6	2.8
TARW156(+)*020	W	15	2.4	6	2.3
TARW226(+)*020	W	22	3.5	6	1.9

AVX Part No.	Case Size	Capacitance $\mu\text{F}$	DCL ( $\mu\text{A}$ ) Max.	DF % Max.	ESR Max. ( $\Omega$ ) @ 100 kHz
<b>25 volt @ 85°C (17 volt @ 125°C)</b>					
TARQ474(+)*025	Q	0.47	0.5	3	20
TARQ684(+)*025	Q	0.68	0.5	3	16
TARQ105(+)*025	Q	1.0	0.5	3	12
TARR155(+)*025	R	1.5	0.5	3	8.0
TARR225(+)*025	R	2.2	0.5	3	6.0
TARR335(+)*025	R	3.3	0.7	3	5.0
TARS475(+)*025	S	4.7	0.9	4	4.0
TARS685(+)*025	S	6.8	1.4	4	3.1
TARS106(+)*025	S	10	1.5	4	2.5
TARW156(+)*025	W	15	3.0	4	2.0
<b>35 volt @ 85°C (23 volt @ 125°C)</b>					
TARQ104(+)*035	Q	0.1	0.5	3	26
TARQ154(+)*035	Q	0.15	0.5	3	21
TARQ224(+)*035	Q	0.22	0.5	3	17
TARQ334(+)*035	Q	0.33	0.5	3	15
TARQ474(+)*035	Q	0.47	0.5	3	13
TARQ684(+)*035	R	0.68	0.5	3	10
TARR105(+)*035	R	1.0	0.5	3	8.0
TARR155(+)*035	R	1.5	0.5	3	6.0
TARS225(+)*035	S	2.2	0.6	3	5.0
TARS335(+)*035	S	3.3	0.9	4	4.0
TARS475(+)*035	S	4.7	1.3	4	3.0
TARW685(+)*035	W	6.8	1.9	4	2.5
TARW106(+)*035	W	10	2.8	4	2.0
<b>50 volt @ 85°C (33 volt @ 125°C)</b>					
TARQ104(+)*050	Q	0.1	0.5	3	26
TARQ154(+)*050	Q	0.15	0.5	3	21
TARQ224(+)*050	Q	0.22	0.5	3	17
TARR334(+)*050	R	0.33	0.5	3	15
TARR474(+)*050	R	0.47	0.5	3	13
TARR684(+)*050	R	0.68	0.5	3	10
TARR105(+)*050	R	1.0	0.5	3	8.0
TARS155(+)*050	S	1.5	0.6	4	5.0
TARS225(+)*050	S	2.2	0.9	4	3.5
TARW335(+)*050	W	3.3	1.3	4	3.0
TARW475(+)*050	W	4.7	1.9	4	2.5

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

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

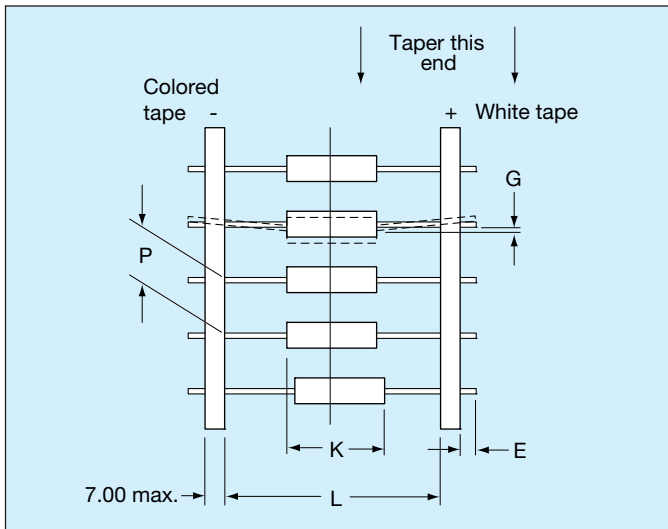
### SOLID TANTALUM AXIAL TAR AND TAA

#### TAPE AND REEL PACKAGING FOR AUTOMATIC COMPONENT INSERTION

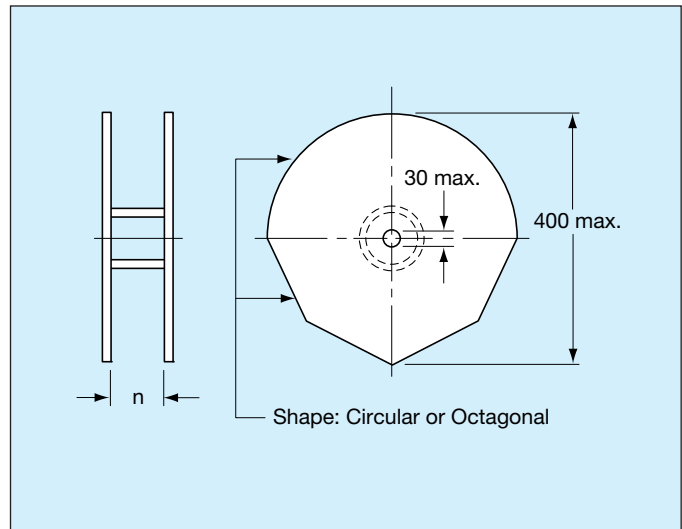
TAR and TAA series are supplied as standard on axial bandolier, in reel format or 'ammo' pack for use on high speed axial automatic insertion equipment, or preforming machines.

The tape format is compatible with standards for component taping set out by major manufacturers of axial automatic insertion equipment.

#### TAPE SPECIFICATION



#### REEL CONFIGURATION



#### PACKAGING QUANTITIES TAR

For reels

Case Size	Number of Pieces
Q	4500
R	4000
S	2500
W	2500

#### PACKAGING QUANTITIES TAA

For reels, Standard Suffix G

Case Size	Number of Pieces
A	3500
B	2500
C	500
D	400

For reels, Suffix K

Case Size	Number of Pieces
A	1500
B	1000
C	250
D	250

#### DIMENSIONS:

millimeters (inches)

E max	1.60 (0.063)
G max	1.20 (0.047)
K	Component body shall be located centrally within a window, width K, where K is 1.40 (0.060) greater than the primary body length
L	52.4 ± 1.50 (2.060 ± 0.060)
P	5.00 ± 0.50 (0.200 ± 0.020)
leader max	400 (15.75)
trailer max	30.0 (1.200)
n	Will allow for unhindered reeling and unreeling of the taped components. Preferred dimensions 73.0 (2.870) spacing.