

# Tantalum Chip Capacitors

## TCM series

### Standard Tantalum Chip Capacitors.

TCM Series Molded Chip Tantalum Capacitors are designed for use in thick film hybrid circuits and for direct mounting on printed circuit boards.

Fully-molded construction has good resistance to mechanical stress and moisture.

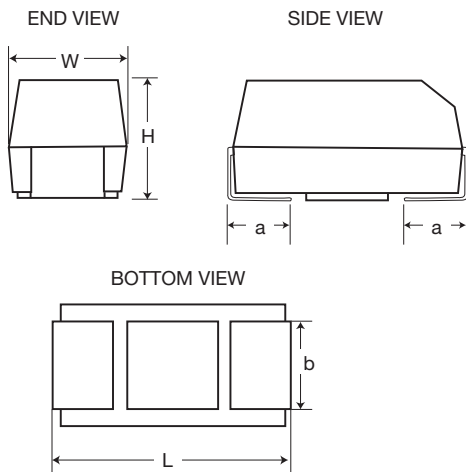
### Specifications

<b>Operating Temperature Range</b>		-55°C – +125°C
<b>Maximum Operating Temperature at Rated Voltage</b>		+85°C
<b>Leakage Current</b>		0.01CV or 0.5µA max.
<b>Dissipation Factor at 20°C and 120 Hz</b>		Cap. ≤ 1.0µF less than 4% Cap. ≥ 1.5µF less than 6%
<b>Humidity Test</b>	<b>Test Condition</b>	Temp.: 60°C, humidity: 90 – 95% RH, duration: 500 hrs
	<b>Capacitance Change</b>	Within 5% of the value before test
	<b>Leakage Current</b>	Not to exceed the value specified above
	<b>Dissipation Factor</b>	Not to exceed 125 % of the value specified above
<b>High Temp. Load Test</b>	<b>Test Condition</b>	Temp.: 85°C at rated voltage duration: 1,000 hrs
	<b>Capacitance Change</b>	Within 10% of the value before test
	<b>Leakage Current</b>	Not to exceed 125 % of the value specified above
	<b>Dissipation Factor</b>	Not to exceed 125 % of the value specified above
	<b>Solderability</b>	260°C 10 sec. (Dip or Reflow) Within 5% of recorded value before test.
<b>Reliability</b>		Failure rate: Less than 1%/1,000 hours (60% CL)

### Standard Ratings and Case Codes

W.V. ▶	4	6.3	10	16	20	25	35	50
Cap. (µF) ▼								
0.1							A	A
0.15							A	A,B
0.22							A	B
0.33						A	A	B
0.47						A	A,B	B,C
0.68					A	A	A,B	B,C
1				A	A	A,B	A,B	B,C
1.5			A	A	A	A,B	B,C	C,D
2.2		A	A,B	A	A,B	B,C	B,C	C,D
3.3	A	A	A	A,B	A,B	B,C	B,C	D
4.7	A	A	A,B	A,B,C	A,B,C	A,B,C	C,D	D
6.8	A	A,B	A,B	A,B,C	A,B,C	B,C	C,D	D,E
10	A,B	A,B	A,B,C	A,B,C	A,B,C	B,C,D	C,D	D,E
15	A,B	A,B,C	A,B,C	A,B,C	C,D	B,C,D	D,E	E
22	A,B,C	A,B,C	A,B,C	B,C,D	B,C,D	C,D	D,E	
33	A,B,C	A,B,C	A,B,C,D	C,D	C,D	C,D,E	E	
47	A,B,C	A,B,C,D	B,C,D	C,D	C,D	D,E	E	
68	A,B,C,D	A,B,C,D	B,C,D	C,D	D,E	D,E		
100	A,B,C,D	B,C,D	C,D	D,E	E	E		
150	B,C,D	C,D	C,D,E	D,E	E			
220	B	C,D,E	D,E	E				
330	C,D	D,E	D,E					
470	D,E	D,E	E					
680	D,E							
1000	E							

### Dimensions



Case Code	L	W	H	a	b
<b>A</b>	3.2 ± 0.2 (0.126 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	1.6 ± 0.2 (0.063 ± 0.008)	0.8 ± 0.3 (0.031 ± 0.012)	1.2 ± 0.2 (0.047 ± 0.008)
<b>B</b>	3.5 ± 0.2 (0.138 ± 0.008)	2.8 ± 0.2 (0.110 ± 0.008)	1.9 ± 0.2 (0.075 ± 0.008)	0.8 ± 0.3 (0.031 ± 0.012)	2.2 ± 0.2 (0.087 ± 0.008)
<b>C</b>	6.0 ± 0.3 (0.236 ± 0.012)	3.2 ± 0.3 (0.126 ± 0.012)	2.5 ± 0.3 (0.098 ± 0.012)	1.3 ± 0.3 (0.051 ± 0.012)	2.2 ± 0.2 (0.087 ± 0.008)
<b>D</b>	7.3 ± 0.3 (0.287 ± 0.012)	4.3 ± 0.3 (0.169 ± 0.012)	2.8 ± 0.3 (0.110 ± 0.012)	1.3 ± 0.3 (0.051 ± 0.012)	2.4 ± 0.2 (0.094 ± 0.008)
<b>E</b>	7.3 ± 0.3 (0.287 ± 0.012)	4.3 ± 0.3 (0.169 ± 0.012)	4.0 ± 0.3 (0.157 ± 0.012)	1.3 ± 0.3 (0.051 ± 0.012)	2.4 ± 0.2 (0.094 ± 0.008)

Unit: mm (inch)

All components in this section are RoHS compliant per the EU directives and definitions.

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# TCM SERIES DATA TABLE

## Standard Part Numbers & Data

Cap. µF	Case Code	Catalogue P/N	Max. DCL @ +25°C (µA)	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz (Ω)
<b>4.0V DC</b>					
3.3	A	TA004TCM335 K or M AR	0.5	6	8
4.7	A	TA004TCM475 K or M AR	0.5	6	8
6.8	A	TA004TCM685 K or M AR	0.5	6	6
10	A	TA004TCM106 K or M AR	0.5	6	6
10	B	TA004TCM106 K or M BR	0.5	6	3.5
15	A	TA004TCM156 K or M AR	0.6	6	4
15	B	TA004TCM156 K or M BR	0.6	6	3.5
22	A	TA004TCM226 K or M AR	0.9	6	4
22	B	TA004TCM226 K or M BR	0.9	6	3.5
22	C	TA004TCM226 K or M CR	0.9	6	1.8
33	A	TA004TCM336 K or M AR	1.3	6	4
33	B	TA004TCM336 K or M BR	1.3	6	3.5
33	C	TA004TCM336 K or M CR	1.3	6	1.8
47	A	TA004TCM476 K or M AR	1.9	12	2.5
47	B	TA004TCM476 K or M BR	1.9	6	3
47	C	TA004TCM476 K or M CR	1.9	6	1.8
68	A	TA004TCM686 K or M AR	2.8	30	4
68	B	TA004TCM686 K or M BR	2.7	6	3.5
68	C	TA004TCM686 K or M CR	2.7	6	1.6
68	D	TA004TCM686 K or M DR	2.7	6	0.8
100	A	TA004TCM107 K or M AR	4	30	4
100	B	TA004TCM107 K or M BR	4	8	0.9
100	C	TA004TCM107 K or M CR	4	8	1.2
100	D	TA004TCM107 K or M DR	4	8	0.8
150	B	TA004TCM157 K or M BR	6	12	2
150	C	TA004TCM157 K or M CR	6	8	1.2
150	D	TA004TCM157 K or M DR	6	8	0.8
220	B	TA004TCM227 K or M BR	8.8	18	0.5
330	C	TA004TCM337 K or M CR	13.2	10	0.9
330	D	TA004TCM337 K or M DR	13.2	8	0.7
470	D	TA004TCM477 K or M DR	18.8	8	0.8
470	E	TA004TCM477 K or M ER	18.8	8	0.5
680	D	TA004TCM687 K or M DR	27.2	12	0.5
680	E	TA004TCM687 K or M ER	27.2	12	0.5
1000	E	TA004TCM108 K or M ER	40	12	0.5

# Tantalum Chip Capacitors

## TCM SERIES DATA TABLE Standard Part Numbers & Data

Cap. $\mu\text{F}$	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu\text{A}$ )	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>6.3V DC</b>					
2.2	A	TA006TCM225 K or M AR	0.5	6	8
3.3	A	TA006TCM335 K or M AR	0.5	6	8
4.7	A	TA006TCM475 K or M AR	0.5	6	6
6.8	A	TA006TCM685 K or M AR	0.5	6	6
6.8	B	TA006TCM685 K or M BR	0.5	6	3.5
10	A	TA006TCM106 K or M AR	0.6	6	4
10	B	TA006TCM106 K or M BR	0.6	6	3.5
15	A	TA006TCM156 K or M AR	0.9	6	3.5
15	B	TA006TCM156 K or M BR	0.9	6	3.5
15	C	TA006TCM156 K or M CR	0.9	6	1.8
22	A	TA006TCM226 K or M AR	1.4	6	4
22	B	TA006TCM226 K or M BR	1.4	6	3.5
22	C	TA006TCM226 K or M CR	1.4	6	1.8
33	A	TA006TCM336 K or M AR	2	12	2.5
33	B	TA006TCM336 K or M BR	2	6	3
33	C	TA006TCM336 K or M CR	2	6	1.8
47	A	TA006TCM476 K or M AR	3	12	3.5
47	B	TA006TCM476 K or M BR	2.9	6	2
47	C	TA006TCM476 K or M CR	2.9	6	1.6
47	D	TA006TCM476 K or M DR	2.9	6	0.8
68	A	TA006TCM686 K or M AR	5	30	4
68	B	TA006TCM686 K or M BR	4.1	8	0.9
68	C	TA006TCM686 K or M CR	4.1	6	1.2
68	D	TA006TCM686 K or M DR	4.1	6	0.8
100	B	TA006TCM107 K or M BR	6.3	15	3
100	C	TA006TCM107 K or M CR	6	8	0.9
100	D	TA006TCM107 K or M DR	6	8	0.8
150	C	TA006TCM157 K or M CR	9	8	1.2
150	D	TA006TCM157 K or M DR	9	8	0.7
220	C	TA006TCM227 K or M CR	13.2	10	1.2
220	D	TA006TCM227 K or M DR	13.2	8	0.7
220	E	TA006TCM227 K or M ER	13.2	8	0.7
330	D	TA006TCM337 K or M DR	19.8	8	0.4
330	E	TA006TCM337 K or M ER	19.8	8	0.4
470	D	TA006TCM477 K or M DR	28.2	12	0.4
470	E	TA006TCM477 K or M ER	28.2	10	0.4

Note: All 6.3V Tantalums have P/N callouts as "006" but are rated at 6.3V.

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# TCM SERIES DATA TABLE

## Standard Part Numbers & Data

Cap. μF	Case Code	Catalogue P/N	Max. DCL @ +25°C (μA)	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz (Ω)
<b>10V DC</b>					
1.5	A	TA010TCM155 K or M AR	0.5	6	8
2.2	A	TA010TCM225 K or M AR	0.5	6	8
2.2	B	TA010TCM225 K or M BR	0.5	5	3.5
3.3	A	TA010TCM335 K or M AR	0.5	6	6
4.7	A	TA010TCM475 K or M AR	0.5	6	5
4.7	B	TA010TCM475 K or M BR	0.5	6	3.5
6.8	A	TA010TCM685 K or M AR	0.7	6	4
6.8	B	TA010TCM685 K or M BR	0.7	6	3.5
10	A	TA010TCM106 K or M AR	1	6	4
10	B	TA010TCM106 K or M BR	1	6	3.5
10	C	TA010TCM106 K or M CR	1	6	1.8
15	A	TA010TCM156 K or M AR	1.5	8	6
15	B	TA010TCM156 K or M BR	1.5	6	2.8
15	C	TA010TCM156 K or M CR	1.5	6	1.8
22	A	TA010TCM226 K or M AR	2.2	10	6
22	B	TA010TCM226 K or M BR	2.2	6	2.4
22	C	TA010TCM226 K or M CR	2.2	6	1.8
33	A	TA010TCM336 K or M AR	3.3	15	6
33	B	TA010TCM336 K or M BR	3.3	6	1.8
33	C	TA010TCM336 K or M CR	3.3	6	1.6
33	D	TA010TCM336 K or M DR	3.3	6	0.8
47	B	TA010TCM476 K or M BR	4.7	8	1
47	C	TA010TCM476 K or M CR	4.7	6	1.2
47	D	TA010TCM476 K or M DR	4.7	6	0.8
68	B	TA010TCM686 K or M BR	6.8	10	3
68	C	TA010TCM686 K or M CR	6.8	6	1.2
68	D	TA010TCM686 K or M DR	6.8	6	0.8
100	C	TA010TCM107 K or M CR	10	8	1.2
100	D	TA010TCM107 K or M DR	10	8	0.7
150	C	TA010TCM157 K or M CR	15	10	0.9
150	D	TA010TCM157 K or M DR	15	8	0.7
150	E	TA010TCM157 K or M ER	15	8	0.7
220	D	TA010TCM227 K or M DR	22	8	0.5
220	E	TA010TCM227 K or M ER	22	8	0.5
330	D	TA010TCM337 K or M DR	33	10	0.5
330	E	TA010TCM337 K or M ER	33	10	0.5
470	E	TA010TCM477 K or M ER	47	10	0.2

# Tantalum Chip Capacitors

## TCM SERIES DATA TABLE Standard Part Numbers & Data

Cap. $\mu\text{F}$	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu\text{A}$ )	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>16V DC</b>					
1	A	TA016TCM105 K or M AR	0.5	4	10
1.5	A	TA016TCM155 K or M AR	0.5	6	8
2.2	A	TA016TCM225 K or M AR	0.5	6	6
3.3	A	TA016TCM335 K or M AR	0.5	6	5
3.3	B	TA016TCM335 K or M BR	0.5	6	3.5
4.7	A	TA016TCM475 K or M AR	0.8	6	4
4.7	B	TA016TCM475 K or M AR	0.8	6	3.5
4.7	C	TA016TCM475 K or M AR	0.8	6	2.4
6.8	A	TA016TCM685 K or M AR	1.1	6	3.5
6.8	B	TA016TCM685 K or M AR	1.1	6	2.5
6.8	C	TA016TCM685 K or M AR	1.1	6	1.9
10	A	TA016TCM106 K or M AR	1.6	8	7
10	B	TA016TCM106 K or M BR	1.6	6	2.8
10	C	TA016TCM106 K or M CR	1.6	6	1.8
15	A	TA016TCM156 K or M AR	2.4	8	3.5
15	B	TA016TCM156 K or M BR	2.4	6	2.5
15	C	TA016TCM156 K or M CR	2.5	6	1.8
22	B	TA016TCM226 K or M BR	3.6	6	2.2
22	C	TA016TCM226 K or M CR	3.6	6	1.6
22	D	TA016TCM226 K or M DR	3.6	6	0.8
33	C	TA016TCM336 K or M CR	5.3	6	1.2
33	D	TA016TCM336 K or M DR	5.3	6	0.8
47	C	TA016TCM476 K or M CR	7.5	6	1.2
47	D	TA016TCM476 K or M DR	7.5	6	0.8
68	C	TA016TCM686 K or M CR	10.9	12	1.2
68	D	TA016TCM686 K or M DR	10.9	6	0.7
100	D	TA016TCM107 K or M DR	16	8	0.7
100	E	TA016TCM107 K or M ER	16	8	0.7
150	D	TA016TCM157 K or M DR	24	12	0.7
150	E	TA016TCM157 K or M ER	24	8	0.5
220	E	TA016TCM227 K or M ER	35.2	10	0.5

## TCM SERIES DATA TABLE

### Standard Part Numbers & Data

Cap. $\mu\text{F}$	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu\text{A}$ )	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>20V DC</b>					
0.68	A	TA020TCM684 K or M AR	0.5	4	12
1	A	TA020TCM105 K or M AR	0.5	4	9
1.5	A	TA020TCM155 K or M AR	0.5	6	6.5
2.2	A	TA020TCM225 K or M AR	0.5	6	7
2.2	B	TA020TCM225 K or M AR	0.5	6	3.5
3.3	A	TA020TCM335 K or M AR	0.7	6	4.5
3.3	B	TA020TCM335 K or M AR	0.7	6	3
4.7	A	TA020TCM475 K or M AR	1	6	4
4.7	B	TA020TCM475 K or M AR	1	6	3
4.7	C	TA020TCM475 K or M AR	1	6	2.4
6.8	A	TA020TCM685 K or M AR	1.4	8	6
6.8	B	TA020TCM685 K or M AR	1.4	6	2.5
6.8	C	TA020TCM685 K or M AR	1.4	6	1.9
10	A	TA020TCM106 K or M AR	2	10	5
10	B	TA020TCM106 K or M AR	2	6	2.1
10	C	TA020TCM106 K or M AR	2	6	1.8
15	C	TA020TCM156 K or M AR	3	6	1.7
15	D	TA020TCM156 K or M AR	3	6	1
22	B	TA020TCM226 K or M AR	4.4	8	4
22	C	TA020TCM226 K or M AR	4.4	6	1.2
22	D	TA020TCM226 K or M AR	4.4	6	0.8
33	C	TA020TCM336 K or M AR	6.6	6	1.2
33	D	TA020TCM336 K or M AR	6.6	6	0.8
47	C	TA020TCM476 K or M AR	9.4	10	0.9
47	D	TA020TCM476 K or M AR	9.4	6	0.7
68	D	TA020TCM686 K or M AR	13.6	8	0.7
68	E	TA020TCM686 K or M AR	13.6	6	0.7
100	E	TA020TCM107 K or M AR	20	8	0.5
150	E	TA020TCM157 K or M AR	30	10	0.5

# Tantalum Chip Capacitors

## TCM SERIES DATA TABLE Standard Part Numbers & Data

Cap. $\mu$ F	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu$ A)	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>25V DC</b>					
0.33	A	TA025TCM334 K or M AR	0.5	4	15
0.47	A	TA025TCM474 K or M AR	0.5	4	14
0.68	A	TA025TCM684 K or M AR	0.5	4	10
1	A	TA025TCM105 K or M AR	0.5	4	8
1	B	TA025TCM105 K or M BR	0.5	4	5
1.5	A	TA025TCM155 K or M AR	0.5	6	7.5
1.5	B	TA025TCM155 K or M BR	0.5	6	5
2.2	B	TA025TCM225 K or M BR	0.6	6	4.5
2.2	C	TA025TCM225 K or M CR	0.6	6	3.5
3.3	B	TA025TCM335 K or M BR	0.9	6	3.5
3.3	C	TA025TCM335 K or M CR	0.9	6	2.5
4.7	A	TA025TCM475 K or M AR	1.2	8	6
4.7	B	TA025TCM475 K or M BR	1.2	6	1.5
4.7	C	TA025TCM475 K or M CR	1.2	6	2.4
6.8	B	TA025TCM685 K or M BR	1.7	8	2.8
6.8	C	TA025TCM685 K or M CR	1.7	6	1.9
10	B	TA025TCM106 K or M BR	2.5	8	3
10	C	TA025TCM106 K or M CR	2.5	6	1.5
10	D	TA025TCM106 K or M DR	2.5	6	1
15	B	TA025TCM156 K or M BR	3.8	8	4
15	C	TA025TCM156 K or M CR	3.8	6	1.5
15	D	TA025TCM156 K or M DR	3.8	6	1
22	C	TA025TCM226 K or M CR	5.5	6	1.4
22	D	TA025TCM226 K or M DR	5.5	6	0.8
33	C	TA025TCM336 K or M CR	8.3	10	1.2
33	D	TA025TCM336 K or M DR	8.3	6	0.7
33	E	TA025TCM336 K or M ER	8.3	6	0.7
47	D	TA025TCM476 K or M DR	11.8	10	0.7
47	E	TA025TCM476 K or M ER	11.8	6	0.7
68	D	TA025TCM686 K or M DR	17	10	0.7
68	E	TA025TCM686 K or M ER	17	8	0.7
100	E	TA025TCM107 K or M ER	25	8	0.3

## TCM SERIES DATA TABLE

### Standard Part Numbers & Data

Cap. $\mu\text{F}$	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu\text{A}$ )	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>35V DC</b>					
0.1	A	TA035TCM104 K or M AR	0.5	4	20
0.15	A	TA035TCM154 K or M AR	0.5	4	19
0.22	A	TA035TCM224 K or M AR	0.5	4	18
0.33	A	TA035TCM334 K or M AR	0.5	4	15
0.47	A	TA035TCM474 K or M AR	0.5	4	12
0.47	B	TA035TCM474 K or M BR	0.5	4	8
0.68	A	TA035TCM684 K or M AR	0.5	4	8
0.68	B	TA035TCM684 K or M BR	0.5	4	6.5
1	A	TA035TCM105 K or M AR	0.5	4	7.5
1	B	TA035TCM105 K or M BR	0.5	4	5
1.5	B	TA035TCM155 K or M BR	0.5	6	5
1.5	C	TA035TCM155 K or M CR	0.5	6	4.5
2.2	B	TA035TCM225 K or M BR	0.8	6	4
2.2	C	TA035TCM225 K or M CR	0.8	6	3.5
3.3	B	TA035TCM335 K or M BR	1.2	6	3.5
3.3	C	TA035TCM335 K or M CR	1.2	6	2.5
4.7	C	TA035TCM475 K or M CR	1.7	6	2.2
4.7	D	TA035TCM475 K or M DR	1.7	6	1.5
6.8	C	TA035TCM685 K or M CR	2.4	6	1.8
6.8	D	TA035TCM685 K or M DR	2.4	6	1.3
10	C	TA035TCM106 K or M CR	3.5	6	1.6
10	D	TA035TCM106 K or M DR	3.5	6	1
15	D	TA035TCM156 K or M DR	5.3	6	0.8
15	E	TA035TCM156 K or M ER	5.3	6	0.9
22	D	TA035TCM226 K or M DR	7.7	6	0.7
22	E	TA035TCM226 K or M ER	7.7	6	0.7
33	E	TA035TCM336 K or M ER	11.6	6	0.6
47	E	TA035TCM476 K or M ER	16.5	8	0.6



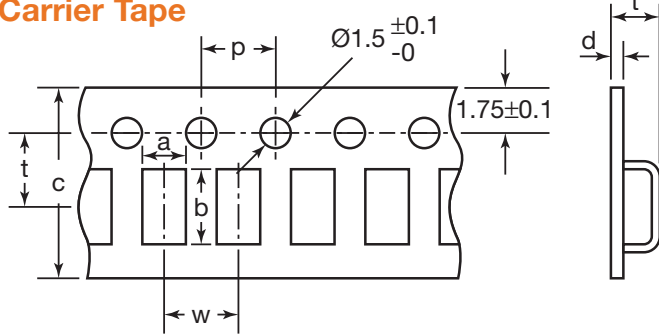
# Tantalum Chip Capacitors

## TCM SERIES DATA TABLE Standard Part Numbers & Data

Cap. $\mu$ F	Case Code	Catalogue P/N	Max. DCL @ +25°C ( $\mu$ A)	Max. DF @ +25°C 120 Hz (%)	Max. ESR 100 kHz ( $\Omega$ )
<b>50V DC</b>					
0.1	A	TA050TCM104 K or M AR	0.5	4	20
0.15	A	TA050TCM154 K or M AR	0.5	4	15
0.15	B	TA050TCM154 K or M BR	0.5	4	16
0.22	B	TA050TCM224 K or M BR	0.5	4	14
0.33	B	TA050TCM334 K or M BR	0.5	4	10
0.47	B	TA050TCM474 K or M BR	0.5	4	9
0.47	C	TA050TCM474 K or M CR	0.5	4	8
0.68	B	TA050TCM684 K or M BR	0.5	4	8
0.68	C	TA050TCM684 K or M CR	0.5	4	7
1	B	TA050TCM105 K or M BR	0.5	6	6
1	C	TA050TCM105 K or M CR	0.5	4	5.5
1.5	C	TA050TCM155 K or M CR	0.8	6	4.5
1.5	D	TA050TCM155 K or M DR	0.8	6	3.5
2.2	C	TA050TCM225 K or M CR	1.1	6	3
2.2	D	TA050TCM225 K or M DR	1.1	6	2.5
3.3	D	TA050TCM335 K or M DR	1.7	6	2
4.7	D	TA050TCM475 K or M DR	2.4	6	1.4
6.8	D	TA050TCM685 K or M DR	3.4	6	1
6.8	E	TA050TCM685 K or M ER	3.5	6	1
10	D	TA050TCM106 K or M DR	5	6	0.8
10	E	TA050TCM106 K or M ER	5	6	0.7
15	E	TA050TCM156 K or M ER	7.5	8	0.7
22	E	TA050TCM226 K or M ER	11	10	0.6

## Taping Specifications

### Carrier Tape



### Carrier Tape Dimensions

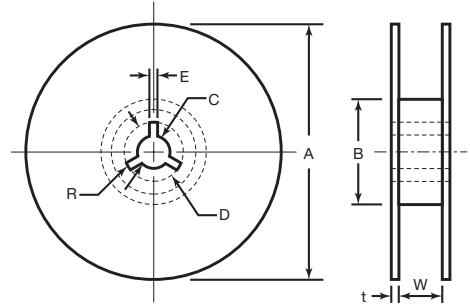
(Unit: mm)

CASE	a $\pm 0.1$	b $\pm 0.1$	c $\pm 0.2$	t $\pm 0.1$	p $\pm 0.1$	w $\pm 0.1$	d
A	1.9	3.9	8.0	2.0	4.0	4.0	0.2
B	3.1	3.9	8.0	2.3	4.0	4.0	0.2
C	3.9	6.3	12.0	2.7	4.0	8.0	0.3
D	4.6	7.7	12.0	3.3	4.0	8.0	0.3
E	4.6	7.7	12.0	4.2	4.0	8.0	0.3

### Quantity per reel

Case Size	Reel Size	
	7"	13"
A	2,000 pcs	10,000 pcs
B	2,000 pcs	7,500 pcs
C, D, E	500 pcs	2,500 pcs
E	400 pcs	2,000 pcs

### Reel



### Reel Dimensions

Case Size	A $+0$ $-3.0$	B $-0$	C $\pm 0.2$	D $\pm 0.8$	E $\pm 0.5$	W $\pm 0.3$	t $\pm 0.5$	R
A, B,	180	60	13.0	21.0	2.0	9.0	2.0	1.0
C, D, E	330	60	13.0	21.0	2.0	13.0	2.0	1.0

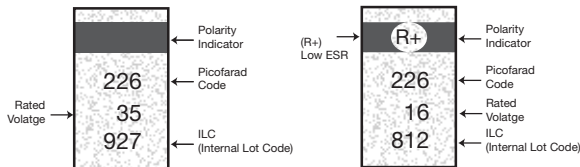
## How To Order

TA	035	TCM	105	M	B	R	-13
Tantalum	Rated Voltage 6.3V-006 (TCM series) 6.3V-6R3 (TCR series) 35V-035	Series TCM TCR	Capacitance in picofarads First two figures are significant. Third is the number of zeros to follow. 1.0 $\mu$ F - 105, 22 $\mu$ F - 226, 100 $\mu$ F - 107	Capacitance Tolerance $\pm 20\%$ : M $\pm 10\%$ : K	Case Code A, B, C, D, E	Packaging Tape	For 13 inch reels add -13, leave blank for standard 7 inch reels

### Marking\*

(1) A, B, C, D, E Case  
(For TCM Series)

(2) A, B, C, D, E Case  
(For TCR Series)



Standard termination finish for this product is 100% matte Tin (Sn)

\* All 6.3V rated Tantalums will typically be marked as 6 or 6V.

All components in this section are RoHS compliant per the EU directives and definitions.

Please Note: Venkel offers Engineering Kits for this product. See page 120 for details.

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