

TANTALUM CAPACITORS

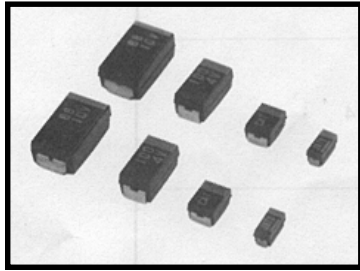
TMCS Series

•Standard Tantalum Chip Capacitors

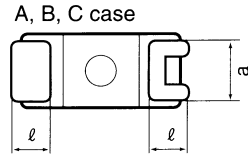
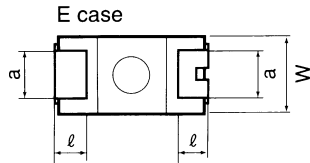
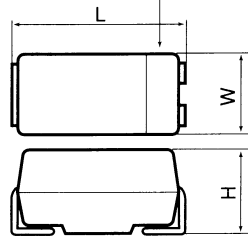
The TMCS Series is a standard type that is most widely used among tantalum chip capacitors. This product has high solder heat resistance and is suitable for automated mounting.

The TMCS Series offers both excellent frequency characteristics and excellent impedance characteristics.

Outline Drawings and Dimensions



Anode Indication belt mark



TMCS Case Code Table

Case Code	Dimensions				
	L ± 0.2	W ± 0.2	H ± 0.2	$\ell \pm 0.3$	a ± 0.2
A	3.2	1.6	1.6	0.7	1.2
B	3.5	2.8	1.9	0.8	2.2
C	5.8	3.2	2.5	1.3	2.2
E	7.3	4.3 ± 0.3	2.8	1.3	2.4

For Specifications see Table on Page 152.

TMCS Product Markings

A, B Case	C, E Case
<p>Simplified code of nominal capacitance (A7: 10μF)</p> <p>Anode Indication belt mark</p> <p>Date Code (for manufacturing in January, 2003)</p> <p>Note: The simplified code is subject to JIS C 5143 10.1.2.</p>	<p>Nominal capacitance value (10μF)</p> <p>Anode Indication belt mark</p> <p>Date Code (for manufacturing in January, 2003)</p> <p>Rated voltage (16V)</p>

Tantalum Capacitor Date Code Table

Year \ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2000	n	p	q	r	s	t	u	v	w	n	n
2001	A	B	C	D	E	F	G	H	J	K	L	M
2002	N	P	Q	R	S	T	U	V	W	X	Y	Z
2003	a	b	c	d	e	f	g	h	j	k	l	m

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Rated Voltage (WVDC)	Part Number	Capacitance	Capacitance Tolerance	Tangent	Dimensions			Quantity	
					L x W* x H (±0.2) (±0.2) (±0.2)	ℓ (±0.3)	a (±0.2)	180mm Dia. Reel	330mm Dia. Reel
4 Volts DC (Code: 0G)	TMCSA0G335KTR	3.3	±10%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA0G335MTR	3.3	±20%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB0G106KTR	10.0	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB0G106MTR	10.0	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS0G336KTR	33.0	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS0G336MTR	33.0	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS0G686KTR	68.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS0G686MTR	68.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
7 Volts DC (Code: 0J)	TMCSA0J225KTR	2.2	±10%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA0J225MTR	2.2	±20%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB0J685KTR	6.8	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB0J685MTR	6.8	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS0J226KTR	22.0	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS0J226MTR	22.0	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS0J476KTR	47.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS0J476MTR	47.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
10 Volts DC (Code: 1A)	TMCSA1A155KTR	1.5	±10%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1A155MTR	1.5	±20%	0.06	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1A475KTR	4.7	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1A475MTR	4.7	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS1A156KTR	15.0	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1A156MTR	15.0	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1A336KTR	33.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS1A336MTR	33.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
16 Volts DC (Code: 1C)	TMCSA1C105KTR	1.0	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1C105MTR	1.0	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1C335KTR	3.3	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1C335MTR	3.3	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS1C106KTR	10.0	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1C106MTR	10.0	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1C226KTR	22.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS1C226MTR	22.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
20 Volts DC (Code: 1D)	TMCSA1D684KTR	0.68	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1D684MTR	0.68	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1D225KTR	2.2	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1D225MTR	2.2	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS1D685KTR	6.8	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1D685MTR	6.8	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1D156KTR	15.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS1D156MTR	15.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
25 Volts DC (Code: 1E)	TMCSA1E474KTR	0.47	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1E474MTR	0.47	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1E155KTR	1.5	±10%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1E155MTR	1.5	±20%	0.06	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCS1E475KTR	4.7	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1E475MTR	4.7	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCS1E106KTR	22.0	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCS1E106MTR	22.0	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500

*Case Code E: Width (W) = ±0.3

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TMCS Series

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Rated Voltage (WVDC)	Part Number	Capacitance	Capacitance Tolerance	Tangent	Dimensions			Quantity	
					L x W* x H (±0.2) (±0.2) (±0.2)	ℓ (±0.3)	a (±0.2)	180mm Dia. Reel	330mm Dia. Reel
35 Volts DC (Code: 1V)	TMCSA1V104KTR	0.10	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V104MTR	0.10	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V154KTR	0.15	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V154MTR	0.15	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V224KTR	0.22	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V224MTR	0.22	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V334KTR	0.33	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1V334MTR	0.33	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1V474KTR	0.47	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V474MTR	0.47	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V684KTR	0.68	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V684MTR	0.68	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V105KTR	1.0	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V105MTR	1.0	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1V155KTR	1.5	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V155MTR	1.5	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V225KTR	2.2	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V225MTR	2.2	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V335KTR	3.3	±10%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V335MTR	3.3	±20%	0.06	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1V475KTR	4.7	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1V475MTR	4.7	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1V685KTR	6.8	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1V685MTR	6.8	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
50 Volts DC (Code: 1H)	TMCSA1H104KTR	0.10	±10%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSA1H104MTR	0.10	±20%	0.04	3.2 x 1.6 x 1.6	0.7	1.2	2000	8000
	TMCSB1H154KTR	0.15	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H154MTR	0.15	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H224KTR	0.22	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H224MTR	0.22	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H334KTR	0.33	±10%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H334MTR	0.33	±20%	0.04	3.5 x 2.8 x 1.9	0.8	2.2	2000	8000
	TMCSB1H474KTR	0.47	±10%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H474MTR	0.47	±20%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H684KTR	0.68	±10%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H684MTR	0.68	±20%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H105KTR	1.0	±10%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H105MTR	1.0	±20%	0.04	5.8 x 3.2 x 2.5	1.3	2.2	500	2500
	TMCSB1H155KTR	1.5	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1H155MTR	1.5	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1H225KTR	2.2	±10%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500
	TMCSB1H225MTR	2.2	±20%	0.06	7.3 x 4.3* x 2.8	1.3	2.4	500	2500

*Case Code E: Width (W) = ±0.3