TWC-Y SERIES

High Temperature – COTS-Plus 200°C Wet Tantalum



The TWC-Y high temperature series represents a COTS-Plus version of conventional wet electrolytic tantalum capacitors that are designed for use at 200°C. The components listed are now capable of 500 hours of operation at extreme temperature with the applicable derated voltage.

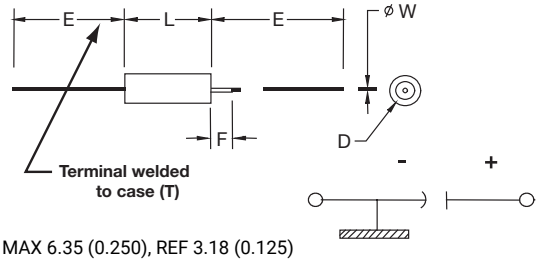
This design includes a welded tantalum can and header assembly that provides a hermetic seal to withstand harsh environments.

This is a new product line so please contact the factory for availability and additional details.

CASE DIMENSIONS: millimeters (inches)

Standard Case Size	Case Size	L +0.79 (0.031) -0.41 (0.016)	D Basic Case ±0.41 (0.016)	D Insulated Case Max	E ±6.35 (0.250)
T1	A	11.51 (0.453)	4.78 (0.188)	5.56 (0.219)	38.10 (1.500)
T2	B	16.28 (0.641)	7.14 (0.281)	7.92 (0.312)	57.15 (2.250)
T3	D	19.46 (0.766)	9.52 (0.375)	10.31 (0.406)	57.15 (2.250)
T4	E	26.97 (1.062)	9.52 (0.375)	10.31 (0.406)	57.15 (2.250)

OUTLINE DIMENSIONS



F MAX 6.35 (0.250), REF 3.18 (0.125)
W 0.64 + 0.05
(0.025 + 0.002)
T 2.380 (0.094)

200°C LIFE TEST:
These components are capable of 500 hours of operation at 200°C with the applicable 60% derated voltage. Following the life test components which are stabilized at 25°C ± 5°C shall exhibit:

- Leakage less than 200% the original requirement or ± 10µA (whichever is greater)
- ESR not greater than 200% the original requirement
- Capacitance increase less than 10% or decrease less than 20% the initial measurement

HOW TO ORDER

PART NUMBER:

TWC	B	476	*	050	□	C	Y	Z	^	00
Type	Case Size	Capacitance Code pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	Capacitance Tolerance M = ±20% K = ±10%	Voltage Code	Insulation Sleeve C=Without Sleeve S = With Sleeve	ESR C = Standard ESR	Qualification Y = High Temp.	Reliability Z = Non-ER	Termination Finish 00 = Sn/Pb 60/40 07 = 100% Tin	Custom Test Options 00 = Standard

LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT
RoHS COMPLIANT

For RoHS compliant products, please select correct termination style.

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of +25°C										
Capacitance Tolerance:		±10%; ±20%										
Rated Voltage (V_R)	≤ 85°C:	6	8	10	15	25	30	50	60	75	100	125
Category Voltage (V_C)	≤125°C:	4	5	7	10	15	20	30	40	50	65	85
High Temp, Voltage (V_T)	**≤ 200°C:**	**3.6**	**4.8**	**6**	**9**	**12**	**18**	**30**	**36**	**45**	**60**	**75**
Surge Voltage (V_S)	≤125°C:	6.9	9.2	11.5	17.3	28.8	34.5	57.5	69	86.3	115	144
Temperature Range:		-55°C to +200°C										

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

STANDARD RATINGS & PART NUMBER REFERENCE

Part Number	Cap (µF) 25°C at 120Hz	DC Rated Voltage (V) at 85°C	DC Leakage (µA)		DF (max)	ESR Max (Ohms) at 120Hz	Maximum Capacitance Change (%)			Case Size	
			+25°C	+85°C & +125°C			-55°C	+85°C	+125°C	Standard	KYOCERA AVX
6 VDC at 85°C 4 VDC at 125°C 3.6 VDC at 200°C											
TWCB147*006□CYZ0^00	140	6	1	3	21	1.99	-40	14	16	T2	B
TWCD337*006□CYZ0^00	330	6	2	7.9	36	1.45	-44	14	16	T3	D
TWCD567*006□CYZ0^00	560	6	2	13	55	1.30	-64	17.5	20	T3	D
8 VDC at 85°C 5 VDC at 125°C 4.8 VDC at 200°C											
TWCB127*008□CYZ0^00	120	8	1	2	20	2.21	-44	17.5	20	T2	B
TWCD297*008□CYZ0^00	290	8	2	6	34	1.56	-64	17.5	20	T3	D
TWCD437*008□CYZ0^00	430	8	2	14	46	1.42	-64	17.5	20	T3	D
10 VDC at 85°C 7 VDC at 125°C 6 VDC at 200°C											
TWCB107*010□CYZ0^00	100	10	1	4	15	1.99	-36	14	16	T2	B
TWCD257*010□CYZ0^00	250	10	2	10	30	1.59	-40	14	16	T3	D
TWCD397*010□CYZ0^00	390	10	2	16	44	1.50	-64	17.5	20	T3	D
15 VDC at 85°C 10 VDC at 125°C 9 VDC at 200°C											
TWCB706*015□CYZ0^00	70	15	1	4	13	2.46	-28	14	16	T2	B
TWCD177*015□CYZ0^00	170	15	2	10	25	1.95	-32	14	16	T3	D
TWCD277*015□CYZ0^00	270	15	2	16	32	1.57	-56	17.6	20	T3	D
25 VDC at 85°C 15 VDC at 125°C 15 VDC at 200°C											
TWCA226*025□CYZ0^00	22	25	1	2	6.6	3.98	-20	10.5	12	T1	A
TWCA686*025□CYZ0^00	68	25	2	9	22	4.29	-50	12	15	T1	A
TWCB107*025□CYZ0^00	100	25	1	10	15	1.99	-28	13	15	T2	B
TWCD127*025□CYZ0^00	120	25	2	6	21	2.32	-32	13	15	T3	D
TWCD187*025□CYZ0^00	180	25	2	18	26	1.92	-48	13	15	T3	D
TWCB277*025□CYZ0^00	270	25	3	16	55	2.70	-62	13	16	T2	B
TWCD567*025□CYZ0^00	560	25	7	28	76	1.80	-77	20	25	T3	D
30 VDC at 85°C 20 VDC at 125°C 18 VDC at 200°C											
TWCA156*030□CYZ0^00	15	30	1	2	5	4.42	-20	10.5	12	T1	A
TWCA566*030□CYZ0^00	56	30	2	9	22	5.21	-48	12	15	T1	A
TWCB686*030□CYZ0^00	68	30	1	8	13	2.54	-24	13	15	T2	B
TWCD107*030□CYZ0^00	100	30	2	12	17	2.26	-28	10.5	12	T3	D
TWCD157*030□CYZ0^00	150	30	2	18	23	2.03	-48	13	15	T3	D
TWCB227*030□CYZ0^00	220	30	3	16	42	2.53	-60	13	16	T2	B
TWCE307*030□CYZ0^00	300	30	8	32	31	1.37	-60	25	25	T4	E
TWCD397*030□CYZ0^00	390	30	6	18	53	1.80	-65	18	25	T3	D
TWCD477*030□CYZ0^00	470	30	8	32	64	1.81	-70	20	25	T3	D
TWCE567*030□CYZ0^00	560	30	9	36	55	1.30	-65	25	30	T4	E
50 VDC at 85°C 30 VDC at 125°C 30 VDC at 200°C											
TWCA106*050□CYZ0^00	10	50	1	2	4	5.31	-24	8	9	T1	A
TWCA336*050□CYZ0^00	33	50	2	9	12.3	4.95	-39	10	12	T1	A
TWCB476*050□CYZ0^00	47	50	1	9	11	3.11	-28	13	15	T2	B
TWCD606*050□CYZ0^00	60	50	2	12	12	2.65	-16	10.5	12	T3	D
TWCD826*050□CYZ0^00	82	50	2	16	15	2.43	-32	13	15	T3	D
TWCB127*050□CYZ0^00	120	50	4	24	22.5	2.49	-42	12	15	T2	B
TWCE167*050□CYZ0^00	160	50	8	32	17	1.41	-50	25	25	T4	E
TWCD277*050□CYZ0^00	270	50	8	32	37	1.82	-51	20	25	T3	D
TWCE337*050□CYZ0^00	330	50	9	36	38	1.53	-46	25	30	T4	E
60V VDC at 85°C 40 VDC at 125°C 36 VDC at 200°C											
TWCA825*060□CYZ0^00	8.2	60	1	2	4	6.47	-24	8	9	T1	A
TWCA276*060□CYZ0^00	27	60	3	12	10.2	5.01	-34	10	12	T1	A
TWCD506*060□CYZ0^00	50	60	2	12	10	2.65	-16	10.5	12	T3	D
TWCD686*060□CYZ0^00	68	60	2	16	13	2.54	-32	10.5	12	T3	D
TWCB107*060□CYZ0^00	100	60	4	20	19	2.52	.36	12	15	T2	B
TWCE147*060□CYZ0^00	140	60	8	32	16	1.52	-40	20	20	T4	E
TWCD227*060□CYZ0^00	220	60	8	32	30	1.81	-45	16	20	T3	D
TWCE277*060□CYZ0^00	270	60	9	36	27	1.33	-45	20	25	T4	E
75V VDC at 85°C 50 VDC at 125°C 45 VDC at 200°C											
TWCA685*075□CYZ0^00	6.8	75	1	2	3.5	6.83	-20	8	9	T1	A
TWCA226*075□CYZ0^00	22	75	3	12	8.5	5.13	-29	10	12	T1	A
TWCD566*075□CYZ0^00	56	75	2	17	11	2.61	-28	10.5	15	T3	D
TWCB826*075□CYZ0^00	82	75	4	24	15.2	2.46	-30	12	15	T2	B
TWCE117*075□CYZ0^00	110	75	9	36	12	1.45	-35	20	20	T4	E
TWCD187*075□CYZ0^00	180	75	9	36	24.4	2.23	-40	16	20	T3	D
TWCE227*075□CYZ0^00	220	75	10	40	37	1.80	-40	20	25	T4	E
100 VDC at 85°C 65 VDC at 125°C 60 VDC at 200°C											
TWCB226*100□CYZ0^00	22	100	1	9	7.5	4.52	-16	8	8	T2	B
TWCE127*100□CYZ0^00	120	100	12	48	25	2.76	-35	15	17	T4	E
125 VDC at 85°C 85 VDC at 125°C 75 VDC at 200°C											
TWCB276*125□CYZ0^00	27	125	5	24	7.2	3.54	-18	12	15	T2	B
TWCE826*125□CYZ0^00	82	125	12	48	17.4	2.82	-30	15	17	T4	E

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5RMS with DC bias of 2.2V. DCL is measured at rated voltage after 5 minutes.
Note: KYOCERA AVX reserves the right to supply higher voltage rating in the same case size to the same reliability standards.

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