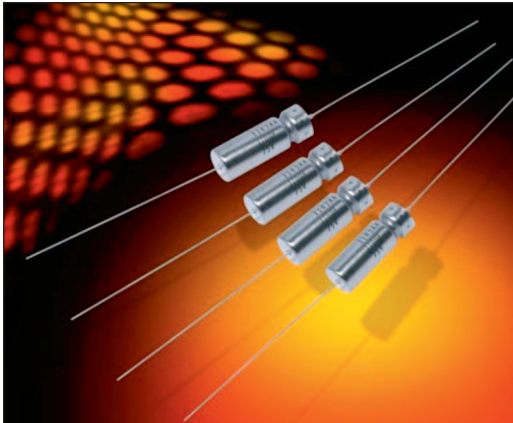


# TWC-Y High Temperature Series



## COTS-Plus 200°C Wet Tantalum

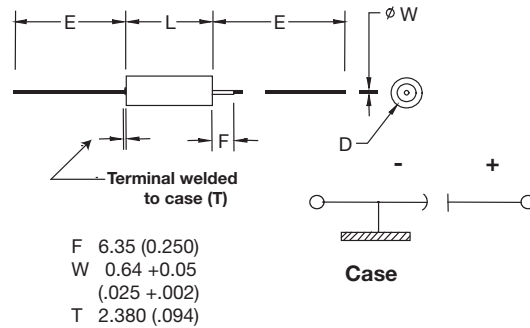


The TWC-Y high temperature series represents a COTS-Plus version of conventional wet electrolytic tantalum capacitors that are designed for use at 200°C. Components are capable of 300 hours of operation at extreme temperature with the applicable derated voltage.

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.

### OUTLINE DIMENSIONS



### CASE DIMENSIONS: millimeters (inches)

DSCC Case Size	AVX Case Size	L		D		E	
		+0.79 (0.031)	-0.41 (0.016)	Basic Case ±0.41 (0.016)	Insulated Case Max	±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)	

### 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	75	100	125
Category Voltage ( $V_C$ )	125°C	4	5	7	10	15	20	30	50	65	85
<b>High Temp, Voltage (<math>V_T</math>)</b>	<b>200°C</b>	<b>3.6</b>	<b>4.8</b>	<b>6</b>	<b>9</b>	<b>12</b>	<b>18</b>	<b>30</b>	<b>45</b>	<b>60</b>	<b>75</b>
Surge Voltage ( $V_S$ )	≤ 85°C	6.9	9.2	11.5	17.3	28.8	34.5	57.5	86.3	115	144

Temperature Range: -55°C to +200°C



# TWC-Y High Temperature Series



## COTS-Plus 200°C Wet Tantalum

### HOW TO ORDER

#### AVX PART NUMBER:

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

Not RoHS Compliant

### STANDARD RATINGS & PART NUMBER REFERENCE

AVX 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	AVX
<b>6 VDC at 85°C    4 VDC at 125°C    3.6 VDC at 200°C</b>											
TWCB147*006□CYZ0000	140	6	1	3	21	1.99	-28	13	15	T2	B
<b>8 VDC at 85°C    5 VDC at 125°C    4.8 VDC at 200°C</b>											
TWCB127*008□CYZ0000	120	8	1	2	20	2.21	-28	13	15	T2	B
<b>10 VDC at 85°C    7 VDC at 125°C    6 VDC at 200°C</b>											
TWCB107*010□CYZ0000	100	10	1	4	15	1.99	-28	13	15	T2	B
<b>15 VDC at 85°C    10 VDC at 125°C    9 VDC at 200°C</b>											
TWCB706*015□CYZ0000	70	15	1	4	13	2.46	-28	13	15	T2	B
TWCD177*015□CYZ0000	170	15	2	10	25	1.95	-55	13	15	T3	D
<b>25 VDC at 85°C    15 VDC at 125°C    15 VDC at 200°C</b>											
*TWCA686*025□CYZ0000	68	25	2	9	22	4.29	-30	10	12	T1	A
TWCB107*025□CYZ0000	100	25	1	10	15	1.99	-28	13	15	T2	B
TWCD187*025□CYZ0000	180	25	2	18	26	1.92	-55	13	15	T3	D
<b>30 VDC at 85°C    20 VDC at 125°C    18 VDC at 200°C</b>											
*TWCA566*030□CYZ0000	56	30	2	9	22	5.21	-30	10	12	T1	A
TWCB686*030□CYZ0000	68	30	1	8	13	2.54	-28	13	15	T2	B
<b>50 VDC at 85°C    30 VDC at 125°C    30 VDC at 200°C</b>											
*TWCA336*050□CYZ0000	33	50	2	9	12.3	4.95	-30	10	12	T1	A
TWCB476*050□CYZ0000	47	50	1	9	11	3.11	-28	13	15	T2	B
<b>75V VDC at 85°C    50 VDC at 125°C    45 VDC at 200°C</b>											
*TWCA226*075□CYZ0000	22	75	3	12	8.5	5.13	-30	10	12	T1	A
<b>100 VDC at 85°C    65 VDC at 125°C    60 VDC at 200°C</b>											
TWCB226*100□CYZ0000	22	100	1	9	7.5	4.52	-25	12	15	T2	B
TWCE127*100□CYZ0000	120	100	12	48	25	2.76	-45	15	17	T4	E
<b>125 VDC at 85°C    85 VDC at 125°C    75 VDC at 200°C</b>											
TWCB276*125□CYZ0000	27	125	5	24	7.2	3.54	-25	12	15	T2	B
TWCE826*125□CYZ0000	82	125	12	48	17.4	2.82	-35	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: AVX reserves the right to supply higher voltage rating in the same case size to the same reliability standards.

\*The T1 A case components will available shortly after the initial product release.

**200°C LIFE TEST:** Components are capable of 300 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 ± 10uA (whichever is greater)
- ESR not greater than 200% the original requirement
- Capacitance increase less than 10% or decrease less than 20% the initial measurement

