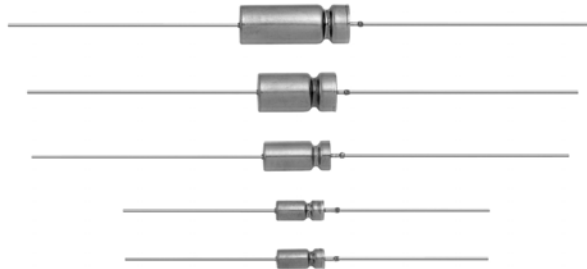


## Wet Tantalum HI TMP<sup>®</sup> Capacitors Tantalum-Case with Glass-to-Tantalum Hermetic Seal for - 40 °C to + 230 °C Operation



### FEATURES

Vishay T11 HI TMP<sup>®</sup> represents a major breakthrough in wet tantalum capacitor technology for high temperature (+ 230 °C) applications now being seen in the petroleum exploration industry. Its unique design provides for the highest capacitance per unit volume. The design facilitates a doubling of capacitance when compared with conventional wet tantalum products.

The T11 is housed in an unique all tantalum, hermetically sealed case and is manufactured to withstand high stress and hazardous environments.

- Terminations: standard tin/lead (SnPb)
- 100 % tin (RoHS compliant) available
- Compliant to RoHS Directive 2002/95/EC



**RoHS\***  
COMPLIANT

### PERFORMANCE CHARACTERISTICS

**Operating Temperature:** - 55 °C to + 85 °C  
(To + 230 °C with voltage derating)

**Capacitance Tolerance:** At 120 Hz, + 25 °C; ± 20 % standard; ± 10 %

**DC Leakage Current (DCL Max.):** At + 25 °C and above: Leakage current shall not exceed the values listed in the Standard Ratings tables.

**Life Test:** Capacitors are capable of withstanding a 500 h life test at a temperature of + 230 °C at the applicable derated DC working voltage.

ORDERING INFORMATION								
T11	C	826	M	125	B	Z	6	S
MODEL	CASE CODE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	TERMINATION AND PACKAGING	RELIABILITY LEVEL	STYLE NUMBER	ESR
	See Ratings and Case Codes table	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow	K = ± 10 % M = ± 20 %	This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating	A = 100 % tin (RoHS compliant), bulk B = Std., tin/lead, bulk	Z = Non-ER	High temperature 8 = No outer insulating sleeve 6 = High temperature film insulation (above + 125 °C)	S = Std.

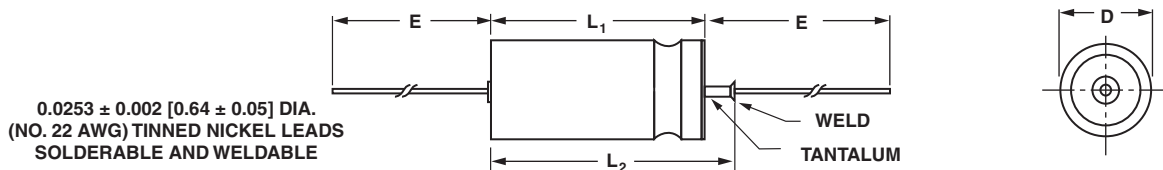
**Note**

- **Packaging:** The use of formed plastic trays for packing bulk components is standard

\* Pb containing terminations are not RoHS compliant, exemptions may apply

Wet Tantalum HI TMP® Capacitors  
Tantalum-Case with Glass-to-Tantalum Hermetic Seal  
for - 40 °C to + 230 °C Operation

**DIMENSIONS** in inches [millimeters]



CASE CODE		D	L <sub>1</sub>	L <sub>2</sub> (Max.)	E	WEIGHT (g) (Max.)
TYPE T11	134D					
A	T1	0.188 ± 0.016 [4.78 ± 0.41]	0.453 + 0.031 - 0.016 [11.51 + 0.79 - 0.41]	0.734 [18.64]	1.500 ± 0.250 [38.10 ± 6.35]	2.6
B	T2	0.281 ± 0.016 [7.14 ± 0.41]	0.641 + 0.031 - 0.016 [16.28 + 0.79 - 0.41]	0.922 [23.42]	2.250 ± 0.250 [57.15 ± 6.35]	6.2
C	T3	0.375 ± 0.016 [9.53 ± 0.41]	0.766 + 0.031 - 0.016 [19.46 + 0.79 - 0.41]	1.047 [26.59]	2.250 ± 0.250 [57.15 ± 6.35]	11.6
D	T4	0.375 ± 0.016 [9.53 ± 0.41]	1.062 + 0.031 - 0.016 [26.97 + 0.79 - 0.41]	1.343 [34.11]	2.250 ± 0.250 [57.15 ± 6.35]	17.7

**Note**

- For insulated parts, add 0.007" [0.178] to the diameter. The insulation shall lap over the ends of the capacitor body.

**STANDARD RATINGS**

CAP. AT 25 °C AND 120 Hz	CASE CODE	PART NUMBER	MAX. 120 Hz ESR Ω	MAX. DCL (μA) AT		MAXIMUM		TYPICAL			AC RIPPLE (1) 85 °C 40 kHz mA <sub>RMS</sub>
				25 °C	85 °C AND 125 °C	IMP, Z AT - 25 °C Ω	ΔCAP. AT - 25 °C	IMP, Z AT - 55 °C Ω	ΔCAP. AT - 55 °C %	ΔCAP. + 85 °C %	
50 V <sub>DC</sub> AT 85 °C....30 V <sub>DC</sub> AT 125 °C....25 V <sub>DC</sub> AT 230 °C											
<i>"Ratings to be determined at a later date. Contact marketing for priority of development"</i>											
60 V <sub>DC</sub> AT 85 °C....40 V <sub>DC</sub> AT 125 °C....30 V <sub>DC</sub> AT 230 °C											
<i>"Ratings to be determined at a later date. Contact marketing for priority of development"</i>											
75 V <sub>DC</sub> AT 85 °C....50 V <sub>DC</sub> AT 125 °C....36 V <sub>DC</sub> AT 230 °C											
180	B	T11B187(1)075(2)Z(4)S	1.50	5	25		30	- 35	15	20	2000
100 V <sub>DC</sub> AT 85 °C....65 V <sub>DC</sub> AT 125 °C....50 V <sub>DC</sub> AT 230 °C											
<i>"Ratings to be determined at a later date. Contact marketing for priority of development"</i>											
125 V <sub>DC</sub> AT 85 °C....85 V <sub>DC</sub> AT 125 °C....62 V <sub>DC</sub> AT 230 °C											
<i>"Ratings to be determined at a later date. Contact marketing for priority of development"</i>											

**Notes**

- (1) Capacitance tolerance: K, M
- (2) Termination/packaging: A = 100 % tin, bulk B = Std., tin/lead, bulk
- (3) Reliability level: Z = Non-ER
- (4) Style number: 8 = No insulating sleeve, 6 = High temperature insulating sleeve
- (5) ESR: S = Std.



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