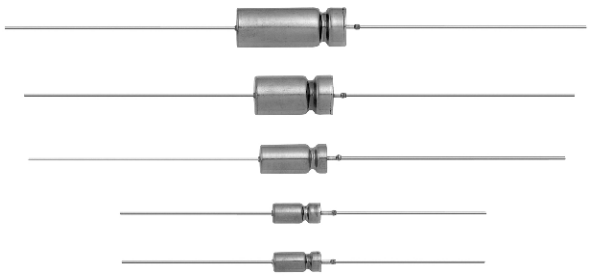
Wet Tantalum HI TMP® Capacitors
Tantalum-Case with Glass-to-Tantalum Hermetic Seal
for - 55 °C to + 200 °C Operation



FEATURES

Pb-free Available

RoHS* COMPLIANT

Vishay 134D HI TMP® represents a major breakthrough in wet tantalum capacitor technology for high temperature (+ 200 °C) applications such as that 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 134D is housed in an 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

PERFORMANCE CHARACTERISTICS

Operating Temperature: - 55 °C to + 85 °C (to + 200 °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 hour life test at a temperature of + 200 °C at the applicable derated DC working voltage.

ORDERING INFORMATION

134D	227	X0	100	K	6	E3
TYPE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	CASE CODE	STYLE NUMBER	ROHS COMPLIANT
	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	**X0 = ± 20 %** X9 = ± 10 %	This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R" (6R3 = 6.3 volts).	See Ratings and Case Codes Table.	High Temperature 60 = No outer tube 6 = High temperature film insulation (above + 125 °C)	E3 = 100 % tin termination (RoHS compliant design) Blank = SnPb tremination (standard design)

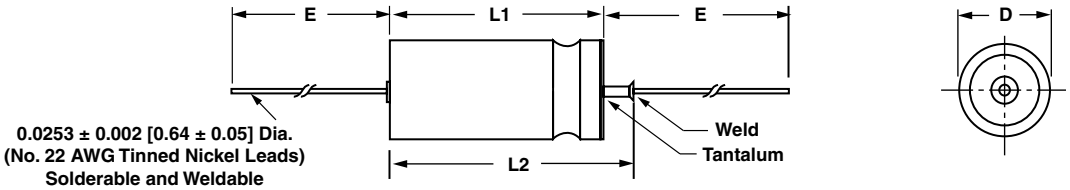
Packaging: The use of formed plastic trays for packaging this type of axial lead component is standard. Tape and reel is not recommended due to the unit weight.

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

For technical questions, contact: wettants@vishay.com
Document Number: 40072
Revision: 17-Apr-08

Wet Tantalum HI TMP® Capacitors
Tantalum-Case with Glass-to-Tantalum Hermetic Seal
for - 55 °C to + 200 °C Operation

DIMENSIONS in inches [millimeters]



CASE CODE		D	L1	L2 (MAX.)	E	WEIGHT IN GRAMS (MAX.)
TYPE 134D	CLR 79/81 EQUIV.					
C	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
F	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
T	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
K	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

STANDARD RATINGS

CAPACITANCE AT 25 °C AND 120 Hz	CASE CODE	MAX. 120 Hz ESR Ω	MAX. DCL µA		MAXIMUM		TYPICAL				AC RIPPLE* 85 °C 40 kHz mA RMS
			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 %	ΔCAP + 125 °C %	
50 VDC AT 85 °C ... 30 VDC AT 125 °C ... 30 VDC AT 200 °C											
68	C	1.50	1	5	22	- 6 %	25	- 11 %	12 %	55 %	1400
220	F	0.90	2	10	9	- 15 %	10	- 25 %	13 %	50 %	2300
470	T	0.75	3	25	6	- 24 %	8	- 50 %	10 %	25 %	2650
680	K	0.70	5	40	4	- 22 %	5	- 40 %	12 %	40 %	2900
60 VDC AT 85 °C ... 40 VDC AT 125 °C ... 36 VDC AT 200 °C											
47	C	2.00	1	5	34	- 8 %	40	- 20 %	8 %	12 %	1250
150	F	1.10	2	10	13	- 11 %	15	- 25 %	10 %	30 %	2050
390	T	0.90	3	25	7	- 27 %	10	- 50 %	10 %	25 %	2450
560	K	0.80	5	40	5	- 21 %	6	- 40 %	12 %	40 %	2700
75 VDC AT 85 °C ... 50 VDC AT 125 °C ... 45 VDC AT 200 °C											
33	C	2.50	1	5	45	- 3.5 %	50	- 6 %	8 %	25%	1100
110	F	1.30	2	10	16	- 8 %	20	- 18 %	8 %	30 %	1900
330	T	1.00	3	30	8	- 30 %	12	- 50 %	10 %	25 %	2300
470	K	0.90	5	50	6	- 20 %	7	- 40 %	10 %	40 %	2550
100 WVDC AT 85 °C ... 65 WVDC AT 125 °C ... 60 WVDC AT 200 °C											
15	C	3.50	1	5	95	- 2.5 %	100	- 4 %	8 %	25 %	950
68	F	2.10	2	10	25	- 6 %	30	- 14 %	8 %	25 %	1500
150	T	1.60	3	25	14	- 12 %	18	- 30 %	8 %	22 %	1800
220	K	1.20	5	50	13	- 44 %	16	- 55 %	8 %	15 %	2200
125 VDC AT 85 °C ... 85 VDC AT 125 °C ... 75 VDC AT 200 °C											
10	C	5.50	1	5	145	- 2.5 %	150	- 4 %	8 %	20 %	750
47	F	2.30	2	10	35	- 5 %	40	- 12 %	7 %	20 %	1450
50	F	2.30	3	10	35	- 5 %	40	- 12 %	7 %	20 %	1450
100	T	1.80	3	25	24	- 20 %	30	- 35 %	8 %	20 %	1700
150	K	1.60	5	50	13	- 10 %	16	- 28 %	6 %	12 %	1900

* **Note**: For insulated parts, add 0.015 inches [0.38] to the diameter. The insulation shall lap over the ends of the capacitor body.

Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.