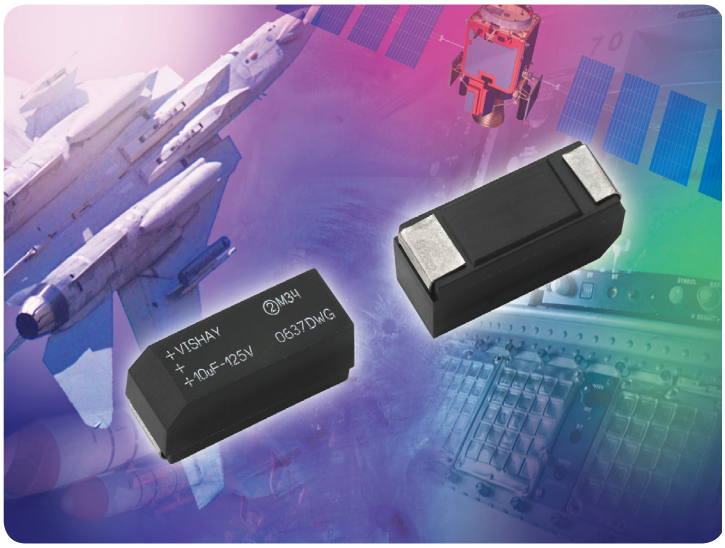
Surface-Mount Wet Tantalum Capacitors



KEY BENEFITS

- Molded, surface-mount design
- Internal all-tantalum hermetic cell
- Tin/lead or 100 % tin (RoHS-compliant) terminations
- All axial leaded SuperTan® “T1” case size ratings
- Maximum capacitance range: 120 µF / 25 V to 10 µF / 125 V)

APPLICATIONS

- AMS (avionics, military, space) power supplies

RESOURCES

- Datasheet: http://www.vishay.com/doc?40106
- Wet tantalum capacitor product portfolio: http://www.vishay.com/capacitors/tantalum/tantalum-wet/
- FIT calculator: http://www.vishay.com/capacitors/tantalum/capacitors/tantalum/tantalum-wet/tantalum-reliability-calculator-list/
- Technical support: tantalum@vishay.com
- Sales contacts: http://www.vishay.com/doc?99914

Surface-Mount Wet Tantalum Capacitors

FEATURES

- Terminations: standard tin/lead (SnPb), 100 % tin (RoHS compliant) terminations available
- Very high capacitance, 10 µF to 470 µF 6 V to 125 V, - 55 °C to + 125 °C
- Very low ESR
- High ripple current capability
- Low DCL
- Model M34 wet tantalum electrolytic chip capacitors incorporate the advantages of all the varieties of electrolytic capacitors and eliminate most of the disadvantages. These units have a transient reverse voltage capability and a higher ripple current capability than any other electrolytic type with similar combinations of capacitance and case size.
- Compliant to RoHS directive 2002/95/EC

Pb-free Available

RoHS* COMPLIANT

PERFORMANCE CHARACTERISTICS

Operating Temperature: - 55 °C to + 85 °C.
(To + 125 °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 2000 h life test at a temperature of + 85 °C or + 125 °C at the applicable rated DC working voltage.

Following life test:
1. DCL, measured at + 85 °C rated voltage, shall not be in excess of the original requirement.
2. The equivalent series resistance shall not exceed 150 % of the initial requirement.
3. Change in capacitance shall not exceed 10 % from the initial measurement.

APPLICATION NOTES

a) No continuous reverse voltage permissible.

b) Transient reverse voltage surges are acceptable under the following conditions:
The peak reverse voltage does not exceed 1.5 V and the peak current times the duration of the reverse transient does not exceed 0.05 As. In addition, the repetition frequency of the reverse voltage surge is less than 10 Hz.

c) The peak of the applied AC ripple and the applied DC voltage must not exceed the DC voltage rating of the capacitor.

ORDERING INFORMATION

M34	C	826	M	125	B	Z	S	L
MODEL	CASE CODE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	TERMINATION AND PACKAGING	RELIABILITY LEVEL	TEMP	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	S = Std	**S = Std** L = Low

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

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

Revision: 19-Mar-09