



Minutes of P-2.5 Committee on Tantalum Capacitors

Wednesday, 18 May 2005 Chateau Sonesta New Orleans, LA

Scope of the P-2.5 Committee–
 All Tantalum and Niobium Dielectric Capacitors

Attendees:

<u>NAME</u>	<u>COMPANY</u>
Mike Cannon	TDK
Michael Griffith	KOA
Mike Lauri	IBM
Lucy Lee	KEMET
Carl Lindquist	San-O-Industrial Corp
Laird Macomber	Cornell Dubilier
Ed Mikoski	EIA/ECA
Chris Reynolds	AVX
David Richardson	Vishay
Dave Toomey	Vishay
Jason Young	KEMET

<u>Member Organizations Present</u>	<u>Present 18MAY05 meeting?</u>	<u>Present 06OCT04 San Diego</u>	<u>Present 21APR04 Tampa, FL</u>
AVX	Y	Y	Y
Cornell Dubilier	Y	Y	Y
IBM	Y	Y	N
KEMET	Y	Y	Y
KOA	Y	Y	Y
Vishay	Y	Y	Y

^Indicates activated as member of committee

<u>Member Organizations Absent</u>	<u>Present</u> <u>18MAY05</u> <u>meeting?</u>	<u>Present</u> <u>06OCT04</u> <u>San Diego</u>	<u>Present</u> <u>21APR04</u> <u>Tampa, FL</u>
Intel Corporation	N	Y	Y

* Indicates not used in determination of quorum due to record of non-attendance

<u>Other Organizations Present</u>
EIA/ECA
San-O-Industrial Corp
TDK

1. Meeting convened by Chairman Dave Richardson at 2:10PM.

- 1.1 A quorum was present.
- 1.2 Agenda accepted as revised with S-1 over U-1 Committee.
- 1.3 The meeting minutes of last meeting, San Diego, Ca Fall 2004 were amended and approved.
- 1.4 No correspondence

2. Old business.

2.1 Reports:

2.1.1 Passive component User's Group S-1: Mike Lauri

Next meeting is Oct 17-21 in Memphis, Tn.

2.1.2 Government Specifications and Standards

No DSCC Representative present.

2.2 Surface Mount Tantalum Capacitors

2.2.1 Status: Standard (EIA-535BAAC), Low ESR (EIA-535BAAE) combine, update at working group.

Discussions held to combine Standard EIA 535BAAC and Low ESR (535BAAE) into one standard; EIA 535BAAC. To be included will be additional molded chip MnO2 technologies; facedown, micro mini, fused, and multi anode. AVX has volunteered to update. The fused tantalum is an IS at this time. Information included in this IS should be combined with the revised 535BAAC document. The group has agreed to title the revised standard "Fixed Ta Molded Chip Capacitor with MnO2 Cathode". PN-4837 was assigned for the 535BAAC-B revision. Vishay will create the initial draft.

Two PNs are currently open for 535BAAC and 535BAAE. A vote to withdraw PN 4840(Standard) and PN 4838 (Low ESR) was motioned and is passed to withdraw PN 4840 and PN 4838.

2.2.2 Discussion of new case sizes, ratings or products.....All members

No new case sizes or ratings.

Niobium: No updates were available and the discussion was tabled.

2.2.2.1 Lead-Frameless/face down termination molder specification?

Inclusion of the face down (FD) style component into PN 4837 was agreed to by the present members. KEMT to provide FD drawings. Dave to determine if a FD standard is available through the Japanese standard and obtain copies through ANS.

2.2.3 Discussion: Inclusion or deletion of ratings charts from molded specs:

It was agreed that the committee will merge all tables together with PN 4837. Vishay to create initial draft.

2.3 Hazardous and recyclable material considerations for tantalum chips.

No items to discuss.

2.4.1 Lead free solder topics- Tin Whiskers.

S-1 is updating CB-19 to address Tin Whiskers for passives. CB-19 was based on ceramics but will now be updated to include all passives.

2.5 Tantalum Polymer spec- Review ballot responses, vote for approval.

Present members voted on passing PN 4094. Mike Lauri voted that the committee publish PN 4094 if it meets the voting criteria and there are no negative responses or editors from the ballots. All members voted yes for passing PN 4094. The committee needs to tabulate the votes. If the number of votes does not meet the minimum requirements, the committee must collect the additional ballots that have not been received. Dave to review the votes and determine path forward.

2.6 Discussion of moisture sensitivity tests for SMD solid and polymer tantalum

Discussions on updating IPC-5903 and IPC-5904 for passives in Pb-Free applications. J-Std-020C is currently the only document containing Pb-Free test methods. Positions regarding the need for updating these IPC standards were made with no full agreement. Dave Toomey will first pole the committee to determine if there is agreement and interest in updating the document.

2.6.1 Review existing specifications: J-Std-020C, IPC 5903 (MSL Passives), IPC 5904 (Assembly Process Simulation for Non-IC Devices)

Tabled for now.

2.7 Active Working Projects:

PN-4094 (Polymer), ballots due May 5th.

PN-4837 (535BAAC-B),

PN-5075 Niobium is tabled.

2.8 Review Niobium/NbO draft specification/ PN 5075

Niobium tabled.

2.9 Update EIA IS 717 Qualification at working group meeting.

Update with polymer and 150C products. Update preconditioning in Annex A Document is 8 years old. PN-5097 was registered on 18 May 2005. KEMET to update and provide initial draft.

2.10 Date code limitations in the tantalum industry.

CB-18 states that there are no shelf life limitations.

3 New business

3.1.5 Component Bulleting (Asia) for tantalum metal-green.

Based on concerns that tantalum is viewed as a hazardous substance. The committee agreed that there are no concerns at present. Tabled for now.

3.1.6 Update EIA 809 Solid Tantalum Capacitor Application Guideline

Revise with high temperature and polymer tantalum devices. Chris Reynolds will update.

3.1.7 Update EIA 481

The purposed updates to component placement will be presented to the ACH Committee by Dave Richie during the Spring 2005 summit meetings.

3.1.8 Counterfeit Tantalum Capacitors

A task force was created at the Spring 2005 S-1 session. The task force will create a CB for counterfeit tantalums.

3.1.9 EIA/IS 757 Visual/Mechanical is up for revision.

Reaffirm the current document. PN-5100

3.2 Inputs for "All-Chairs Meeting"

Meeting was adjourned at 4:07 PM

The next meeting will be held in Memphis, TN 19 OCT 2005 in conjunction with the ECA Engineering Summit.

This meeting was conducted in accordance with the EIA Legal Guidelines and the Manual of Organization and Procedures.

David Richardson
Chairman