



Minutes of P-2.5 Committee on Tantalum Capacitors

Wednesday, 19 October 2005 Doubletree Hotel Memphis, TN

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

Attendees:

<u>NAME</u>	<u>COMPANY</u>
Mike Cannon	TDK
Mary Carter Berrios	KEMET
Terry D. Charles	Panasonic
Michael Griffith	KOA
Mike Lauri	IBM
Carl Lindquist	San-O-Industrial Corp
Laird Macomber	Cornell Dubilier
Len Metzger	Panasonic
Ed Mikoski	EIA/ECA
Chris Reynolds	AVX
David Richardson	Vishay
Dave Toomey	Vishay
Jason Young	KEMET

<u>Member Organizations Present</u>	<u>Present at this meeting</u>	<u>Present 18MAY05 meeting?</u>	<u>Present 06OCT04 San Diego</u>
AVX	Y	Y	Y
Cornell Dubilier	Y	Y	Y
IBM	Y	Y	Y
KEMET	Y	Y	Y
KOA	Y	Y	Y
Panasonic	Y	N	Y
Vishay	Y	Y	Y

^Indicates activated as member of committee

<u>Member Organizations Absent</u>	<u>Present at This Meeting?</u>	<u>Present at previous meeting?</u>	<u>Present at meeting prior to previous</u>
Intel Corporation	N	N	Y
Murata*	N	N	N
Taiyo Yuden*	N	N	N

* 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 Committee Organization and Procedures

1.1 Membership and Attendance

The meeting was convened by Chairman Dave Richardson. Self-introductions made and attendance taken. A quorum was present

1.2 Review and Approve Agenda

Agenda was approved.

1.3 Approve minutes of last Meeting, New Orleans, Spring 2005

Minutes from last meeting were approved with no amendments.

1.4 Correspondence

None received

2. Old Business

2.1 Reports:

2.1.1 Passive Component Steering Committee (S-1) Mike Lauri

Three new CB's were voted on and approved.

PN 5115: CB to correct EIA 481 for component orientation. Bulletin was approved.

PN 5117: CB 19A: Tin Whiskers Update. Bulletin approved as a revised CB

PN 5116: CB for counterfeits. Bulletin was approved

Next Meeting is in Ft Lauderdale FL Apr 24-29

2.1.2 Government Specifications and Standards:

No DSCC Representative

2.2 Surface Mount Tantalum Capacitors

2.2.1 Status: Standard (EIA-535BAAC), Low ESR (535BAAE) Fused combine. Discussion of new case sizes.

Four PNs will be used to include all tantalums:

PN 4837 : EIA 535BAAC Update to include standard, low ESR, fused, and high temperature MnO₂: Assigned to Vishay

PN 4094: Polymers Spec (Complete)

PN ?????: Micromini: Assigned to AVX. PN to be generated

PN ?????: Facedown: Assigned to KEMET. PN to be generated

2.2.2.1 Lead-frameless/facedown termination molded specification?

Create PNs for Micromini and facedown.

PN ?????: Micromini: Assigned to AVX. PN to be generated.

PN ?????: Facedown: Assigned to KEMET. PN to be generated.

2.2.3 Discussion: inclusion or deletion of ratings charts from molded specs.

Delete ratings charts in future specifications.

2.3 Hazardous and recyclable material considerations for tantalum chips.

No additional input.

2.4.1 Lead free solder topics- Tin Whiskers

S-1 committee has voted on and approved as a revision the CB 19A for tin whiskers.

2.5 Tantalum Polymer Spec- Status PN 4094

Five members have voted on and approved without comment. Need additional votes to approve. David to follow-up with Cecelia on status of other members.

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

2.6.1 Review existing specification: J-Std-20C, IPC 5903 (MSL passives), IPC 5904 (Assembly Process Simulation for Non-IC Devices).

Several members have an interest in creating a passives standard for moisture sensitivity testing since J-Std-20C is focused on actives. A task force including

Vishay/KEMET/AVX will arrange a conference call in January to discuss a path forward. David create a PN for a CB.

2.7 Review and update EIA list of "active working projects" PN4094, 4837, 5075,

4094: David to determine status of members who have not voted.

4837: Low ESR molded spec. On Hold

5075: Niobium/NbO Spec: AVX is working on a draft.

2.8 Review Niobium/NbO draft specification/PN 5075

AVX is working on the specification

2.9 Update EIA IS 717 Qualification Specification: PN 5097 assigned

KEMET is working on the draft and will send out for review once completed. Current revisions were reviewed by the committee with recommendations provided. Need to update profiles, reference documents, 85/85 humidity,

2.10 Date Code Limitations

CB18 is already available

3 New Business

3.1.1 Address AEC Q200 Rev C preconditioning concerns.

KEMET/AVX/Vishay all agree that the new requirements for preconditioning are too extreme. Mary Carter Barrios is working directly with the AEC group and will head a P2.5 task force to note the tantalum industries concerns for the preconditioning. Perhaps a letter or call from the committee.

3.1.2 Update 809 Applications Guideline. Include Polymer, 150 C, Face down terminations and mini-chip technologies.

AVX to update this document. David to forward Chris a soft copy of the standard. Chris to revise.

3.1.3 Status of Component Bulletin for EIA 481 polarity.

CB was voted on and approved by S-1 committee.

3.1.4 Status of Component Bulletin for counterfeit SMD tantalums

CB was voted on and approved by S-1 committee.

3.1.5 Vote to Reaffirm EIA IS 757 Visual and Mechanical and upgrade status from an IS to an EIA standard.

Committee reaffirmed EIA 757. David to open a PN.

3.2 Inputs for "All-Chairs Meeting"

No additional inputs.

4. Adjournment

Meeting was adjourned at approximately 3:45 pm. The next meeting will be held in Ft Lauderdale, FL 24-27 APR 2006 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