



Minutes of P-2.5 Committee for Tantalum & Niobium Capacitors

Wednesday, 26 April 2006 Sheraton Yankee Trader Hotel Ft. Lauderdale, FL

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

Attendees:

| <u>NAME</u> | <u>COMPANY</u> |
|---------------------|---------------------------|
| Mary Carter Berrios | KEMET |
| Michael Griffith | KOA |
| Mike Lauri | IBM |
| Mihee Lee | Samsung Electro-Mechanics |
| Carl Lindquist | San-O-Industrial Corp |
| Laird Macomber | Cornell Dubilier |
| Ed Mikoski | EIA/ECA |
| Chris Reynolds | AVX |
| David Richardson | Vishay |
| Dave Toomey | Vishay |
| Jayson Young | KEMET |

| <u>Member Organizations Present</u> | <u>Present at this meeting</u> | <u>Present at Fall 2005 meeting</u> | <u>Present 18MAY05 meeting?</u> |
|-------------------------------------|--------------------------------|-------------------------------------|---------------------------------|
| AVX | Y | Y | Y |
| Cornell Dubilier | Y | Y | Y |
| IBM | Y | Y | Y |
| KEMET | Y | Y | Y |
| KOA | Y | Y | Y |
| Panasonic | N | Y | N |
| Samsung Electro-Mechanics | 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 Fall 2005 meeting?</u> | <u>Present at previous meeting?</u> |
|------------------------------------|---------------------------------|--------------------------------------|-------------------------------------|
| Intel Corporation | 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 |

1. Committee Organization and Procedures

1.1 Membership and attendance

Meeting was convened by Chairman Dave Richardson. Role was taken. A quorum was present.

1.2 Review and approve agenda

Agenda was approved.

1.3 Approve minutes of last meeting, Memphis, Fall 2005

For section 2.2.1, PN 5138 was added for the Micromini and PN 5139 for the Facedown. Same for 2.2.2.1

Correct Jayson Young's spelling.

Minutes from last meeting approved with revisions.

1.4 Correspondence

No new correspondence.

2 Old Business

2.1 Reports

None

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

(Announcement of future meeting dates and locations)

Four CB's were released since last meeting. PN5133 still in progress.

Sanyo presented a low ESL standard that is a JEITA spec being approved for IEC.

Next meeting is Sept 25-28 in Reno NV.

2.1.2 Government Specifications and Standards....DSCC Representative

KEMET noted that three new Drawings have been created for polymer, multiple anode polymer, and fused.

The G11 meeting will be in Portland, Or. 55365 DCSS is wanting to add DPD and X-ray requirements. 39003 is also being updated. No EIA members are invited to G11 meetings so no input is being provided.

2.1.3 Surface Mount Tantalum Capacitors

2.1.4 Status: Standard (EIA-535BAAC), Low ESR (EIA-535BAAE)

Discussion of new case sizes, ratings, or products....All Members

Group intends to have a working group meet in the June timeframe to focus on this standard. Notes and minutes will be kept at the working meeting.

2.2.2.1 Lead-frame less/face down termination molded specification?

PN's have been assigned. The group wants to get the Japanese standard for facedown products. Dave will contact Sanyo to determine if a Japanese standard has been created. Group wants to include polymer and MnO₂. Carl suggested getting Mike (KOA) to provide tables and we can update with new pad layouts.

2.3 Hazardous Material IPC-1752 Spec

Discussed the six classifications for this standard.

2.4.1 Lead free solder topics-Tin Whiskers.....

This issue was covered in the S-1 meeting.

2.5 Tantalum Polymer spec – Finalized and Published

The standard has finalized and published. Jayson to send the finalized draft out for use as a template for 535 update.

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

No comments

2.6.1 Review existing specifications: J-Std 020C, IPC-9503 (MSL passives), IPC-9504 (Assembly Process Simulation for Non-IC Devices)

Vishay wants to know if we should work with the JEDEC guys or update the IPC. Group favors working with the JEDEC team to include a passives section. Committees interested include P-2.1 and P-2.5 at a minimum. Given the multiple committees involved, S-1 committee needs to select a representative to attend JEDEC.

2.7 Review and update EIA list of “active working projects”

Dave to discuss with Cecilia regarding an update for the Active Working Projects List.

2.8 Review Niobium/NbO draft specification/ PN number 5075

Chris presented the draft spec. Chris will send out for committee review.

2.9 Update EIA IS717 Qualification specification PN 5097

Reviewed document and discussed changes with the group. Jayson will update the changes and send out.

3 NEW BUSINESS

3.1.1 Address AEC Q200 Rev C preconditioning concerns

No discussion

3.1.2 Update 809 Applications Guideline. Include polymer, 150C. Facedown terminations and mini-chip technologies

No discussion

3.1.3 Status of Component Bulletin for Tin Whiskers as it relates to Tantalum

3.2 Inputs for "All-Chairs Meeting"

No discussion.

4 ADJOURNMENT

Meeting was adjourned at approximately 4:00 pm. The next meeting will be held in Reno, NV 25-29 September 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

Jayson Young
Acting Secretary