



DOCUMENT CHANGE REQUEST

DCR number 919 Changes required for: General

Date: 2015/05/29

Date sent: 2015/03/11

Originator: Steve Jeffery

Organisation: ESCC Executive

Status: IMPLEMENTED

Title: Capacitors, Microwave, Silicon, Naked die, MOS, based on Type 101M, 201M, 400M and 401M

Number: 5711/002

Issue: 2

Other documents affected:

Page:

Total reformat/re-write of ESCC Detail Specification 5711/002 issue 2 as part of the ongoing conversion of legacy ESA/SCC specifications to the ESCC format, as well as reflecting changes resulting from the conversion of ESCC Generic Specification No. 5010.

The layout, format and general content of 5711/002 issue 3 are based on other converted ESCC Detail Specifications (see attached for proposed 5711/002 issue 3).

The technical content of ESCC 5711/002 issue 3 remains closely based on the original ESCC 5711/002 issue 2 except as detailed herein.

Paragraph:

All.

Original wording:

See original ESCC 5711/002 issue 2

Proposed wording:

Total reformat of this Detail Specification (from the range of various ESCC Detail Specifications, 5xxx/xxx, for microwave discrete semiconductors under Generic Specification No. 5010) as part of the ongoing conversion to the ESCC format.

See below for summary of changes, also see attached the proposed 5711/002 issue 3.

Note: known support for active procurement against this specification includes the following Manufacturers:

- Cobham Microwave.

Summary of changes to the current format, layout and content is as follows:

1) General

Rewording and restructure of various sections and paragraphs of the specification, plus other editorial changes including deletion of any redundant paragraphs and information, based on the layout and editorial content of other Detail Specifications already converted to ESCC format.

Specific amendments include:

- 2) Table 1(a) Note 2 is rewritten to clarify the requirements (for clarification and consistency purposes).



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3) Table 1(a) Note 3 is deleted because all Capacitance Values for Variant 11 are in fact available with both tolerance options (confirmed by Cobham Microwave).

4) Table 1(b) Note 1: the text "when using Gold/Tin (Au/Sn 80/20) preforms" is deleted from the note, as the rating applies independent of the die attach materials.

5) Paras 4.2.1(a) & 4.3.4 are deleted as the default requirements specified in the latest Generic spec 5010 shall apply.

6) Paras 4.2.2(a) (ref. Para 6.2), 4.2.2(b), (c), (d), 4.2.3(b), (c), (d): Deviations are effectively moved to the Manufacturer's Appendix.

7) Paras 4.2.2(a) (ref. Para 9.2.4) & 4.3.5: requirements replaced by Para 2.3 in 5711/002 spec issue 3.

8) Paras 4.2.4(a), 4.2.5(a) & 4.10: are moved to be part of Production Control/Wafer Lot Acceptance (Chart F2). A tolerance is added to the bake temperature [(+5 -0) degC] (for clarification purposes).

9) Paras 4.2.4(b) to (h) and 4.2.5(b) to (f): Deviations are made redundant by the latest Generic spec 5010 and hence are deleted.

10) Para 4.3.2: Weight requirements are deleted from this spec as weight is not required to be specified for naked die components in latest Generic spec 5010.

11) Para 4.4.2 is rewritten to clarify the materials & finishes.

12) Table 2 Capacitance: capacitance tolerance limits are added to the table (for clarification purposes).

13) Table 3 & Table 3 Note 2: The Temperature Coefficient of Capacitance Characteristic and associated Note 2 are deleted.

Note: Temperature Coefficient of Capacitance has been confirmed by Cobham Microwave as guideline information only (the given min. / max. test limits are actually just 'typical' values; Note 2 states "For information only not tested").

14) Table 5(b): duration is removed from the table as the default duration in the latest generic spec 5010 already covers this requirement.

15) Appendix A: the "ESCC Versus Chelton Component Number List" is deleted as it is not an ESCC requirement (Manufacturer-specific information, such as part number cross-references, shall not be included in ESCC Detail Specifications).

Justification:

Part of the ongoing conversion of legacy ESA/SCC specifications to the ESCC format. Amendments are made to the format and presentation to be consistent with the various other ESCC Detail Specifications, already converted to ESCC format, as well as the current issue of ESCC Generic Specification No. 5010.



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See also change details above for justification for specific items.

Attachments:

5711002_draft_3b_incl._modification_para._2.5.docx

Modifications:

Para. 2.5, Parameter Drift Values, Characteristic Leakage Current: The Drift Value Limit given in the attached proposed spec is incorrect. " ± 5 or (1) $\pm 10\%$ " shall be deleted and replaced by " ± 5 or (1) $\pm 100\%$ "

Approval signature:

Date signed:

2015-05-29