

## DOCUMENT CHANGE REQUEST

928 DCR number Changes required for: General Originator: Steve Thacker Date: 2015/11/25 Date sent: 2015/04/13 Organisation: ESCC Executive Secretariat Status: IMPLEMENTED Title: Capacitors, Fixed, Chips, Cermic Dielectric, Type II with Flexible Terminations, Based on Types Number: 3009/039 Issue: 1 Other documents affected: Page: Total reformat/re-write of ESCC Detail Specification 3009/039 issue 1 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. 3009 issue 1 (per DCR695). The layout, format and general content of 3009/039 issue 2 is based on other converted ESCC Detail Specifications (see attached for proposed 3009/039 issue 2 Draft E). The technical content of ESCC 3009/039 issue 2 remains closely based on the original ESCC 3009/039 issue 1 except as detailed herein. Paragraph: See Below Original wording: See original Specification Proposed wording: Total reformat of this Detail Specification (from the range of various ESCC Detail Specifications, 3009/xxx, for capacitors under Generic Specification No. 3009) as part of the ongoing conversion to the ESCC format. See below for summary of changes, also see attached the proposed 3009/039 Issue 2 Draft E.

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

• Eurofarad/France (is willing to support procurement of all Variants).

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 based on the layout and editorial content of other Detail Specifications already converted to ESCC format.

In addition, editorial and technical amendments resulting from the changes made to the test requirements of the Generic



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Specification No. 3009.

Specific amendments include:

- Table 3: Delete Insulation Resistance, and Temperature Characteristic for each capacitance value (due to SCC level B being deleted)
- Para. 4.7.1 & Table 4 is deleted (due to SCC level B being deleted)
- Table 6 only includes specified electrical measurement requirements as required for the various Chart F4 Qual level tests (editorial change)
- Table 6: Adhesion is renamed as Robustness of Terminations
- Table 6: Add note that the capacitance values recorded during Mounting may be used as initial measurements for other tests (to provide the same flexibility included in 3009 issue 1)
- Table 6: Climatic Test Sequence requirements are deleted.
- Table 6: Damp Heat Steady State is deleted and replaced by Steady State Humidity (85/85) test requirements.
- Table 6: Add notes applicable to Operating Life, to explain when the 1000h & 2000h measurements apply.

### 2) Table 1(a) (& Notes 2, 3 & Para 4.2, Table 3):

For variants 01 to 12 & 19 to 24, the finish definition is simplified to be: Sn/Pb plating (was 'coating')
Temperature Characteristic limits for VT = UR are moved to be specified in Table 3 (Para 2.3.2 in issue 2)
Add new note and associated new deviation to the Generic Specification for Variants 07 to 12 and 19 to 24 are not suitable for solder assembly methods. They shall be assembled using glue or wire bond techniques."; "Solderability: not applicable to Variants 07 to 12 and 19 to 24."

3) Table 1(a) Note 1, Table 1(b) & Para 4.5.2.3:

The range of components is expanded to also include components with rated voltage = 200V (see attached for details) A note is added to the available range of capacitance values: "Any capacitance value in the capacitance range may be available on request."

- 4) Figure 2: Dimension 'e' max limits are changed (see attached for details)(to be consistent across the range of currently published 3009/xxx specs)
- 5) Para 4.5.1: The 2nd sentence is amended to read: "The information to be marked on the component or its primary package shall be:" (in order to cater for small components and to be consistent with all other 3009/xxx Detail specs)
- 6) Table 2 & Table 6: Units for Insulation Resistance are rewritten as Gohm.nF (instead of 'Mohm.uF')
- 7) Table 2 Capacitance: Add the following new note 1 (in order to provide more flexibility to the Manufacturer during testing and to be consistent with the Generic spec on capacitance ageing):

"Capacitance limits may be adjusted to take into account capacitance ageing, as specified in the Generic Specification."

8) Table 5 (Para 2.5 in issue 4)

Delete test conditions that are already specified in the Generic spec (Temperature & Voltage).



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#### 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 ESCC Generic Specification No. 3009 issue 2.

See also change details for justification for specific items above.

Note: the changes per this DCR have been agreed with the PSWG adhoc WG on ceramic capacitor generic specifications.

Attachments:

3009039\_draft\_2e\_for\_publishing.docx

Modifications:

N/A

Approval signature:

Date signed:

2015-11-25