DOCUMENT CHANGE REQUEST

DCR number 1315	Changes required for: General	Originator: Steve Jeffery
Date: 2020/06/09	Date sent: 2020/01/27	Organisation: ESCC Executive
Status: IMPLEMENTED		

Title:	Capacitors, Fixed, Surface Mount, D.C. Self Healing, Non-Inductive, Polyterephtalate Dielectric,		
Number:	3006/024	Issue:	5

Other documents affected:

Page:

All.

Paragraph:

Total reformat/re-write of ESCC Detail Specification 3006/024 issue 5 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. 3006 (ref. DCR 1231).

The layout, format and general content of 3006/024 issue 6 is based on other converted ESCC Detail Specifications, see the attached draft Detail specification that implements all the proposed changes:
3006024 draft 6B for DCR review.docx

The technical content of ESCC 3006/024 issue 6 remains closely based on the original ESCC 3006/024 issue 5 except as detailed herein.

Original wording:

See 3006/024 issue 5

Proposed wording:

Total reformat of this Detail Specification (one of a range of various ESCC Detail Specifications for capacitors under Generic Specification No. 3006) as part of the ongoing conversion to the ESCC format.

See below for summary of changes, also see attached the proposed 3006/024 issue 6.

Note: known support for active procurement against this specification includes the following Manufacturers:
• Exxelia Technologies (formerly Eurofarad).

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.

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Specific amendments include:

2) Para 1.2 and Table 1(a): Range of Components and Size Variants Table, and Notes, are revised (e.g. “Size Variant” is now “Type Variant”) and Terminal Finish information and Note added.

3) Para 1.3 and Table 1(b), Maximum Ratings:
• Note 2 is deleted (as information is now included in the Para “Deviations from the Generic Specification”).
• New Note on parameter derating is added for the DC Rated Voltage Characteristic.

4) Para 1.5 and Figure 2, Physical Dimensions (re-named “Physical Dimensions and Terminal Identification”): New Note 2 for Terminal Identification is added.

5) Para 4.2 Deviations from Generic Specification is revised as follows:
• Paras 4.2.2(a), 4.2.3(a), 4.2.4(a), 4.2.5(a) “Seal Test: Not applicable” are deleted (not a deviation, as by definition the components are non-hermetically sealed).
• Para 4.2.3(b): This deviation is considered to no longer be required (different yield possibility in new format of Generic 3006) and is deleted accordingly.
• Para 4.2.3(c) is deleted (as, per new Generic Chart F3, Sleeving is only “If specified in the Detail Specification”).
• Para 4.2.4(b) is deleted (however test Ua is now specified in the Para “Robustness of Terminations”).
• Para 4.2.5 is deleted.

6) Para 4.2.4 and Table 6: Permanence of Marking (for which the Identification in Table 6 was “not applicable”) is now considered to be required and performed.

7) Para 4.3.3, Robustness of Terminations: paragraph is re-worded for clarification purposes.

8) Para 4.4.2, Lead Material and Finish: only the Terminal Finish is now required to be specified and this information is moved to Component Type Variants and Range of Components.

9) Para 4.6.1 and Table 2 (was “Electrical Measurements at Room Temperature”, now “Room Temperature Electrical Measurements”):
• Capacitance Limits column, the limit reference is replaced by two new Notes where Note 1 defines the Minimum Limit and Note 2 defines the Maximum Limit.
• The two Insulation Resistance Characteristics are re-named (simplification & clarification).
• The unit for Insulation Resistance, “sec”, is re-written as M.µF.
• Note 1 is re-numbered (Note 3) and re-written for clarification purposes.
• New explanatory note for the VP and VPB limits is added.

10) Para. 4.6.2 and Table 3 (was “Electrical Measurements at High and Low Temperatures”, now “High and Low Temperatures Electrical Measurements”):
• Note 1 (which defines the sampling) is amended to “… a sample of 5 components from each manufacturing lot with 0 failures allowed. In the event of any failure a 100% inspection may be performed.”
• Capacitance Change characteristic is re-named “Temperature Coefficient” and the applicable tolerances added to the Test

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Temperatures. Associated Note 2 re-worded for clarification purposes.

11) Para 4.7.2 and Table 5 (was “Conditions for Burn-in”, now “Burn-in Conditions”): The sentence regarding 24 ±2 hours recovery is re-worded and is included in Note 1. There is now no Para for Operating Life, as this is specified by the new Generic ESCC 3006 and deviations (Para 2.1.1.1(b)).

12) Table 6 (Measurements and Inspections on Completion of Environmental Tests and at Intermediate Points and on Completion of Endurance Testing) is modified and incorporated into new Para “Intermediate and End-Point Electrical Measurements” (Para 2.5):
• The Capacitance Change Identification for Shock or Bump was never required and is therefore deleted.
• Where limits are specified as either “Record Values” or “Table 2”, this is now a Note directing to Room Temperature Electrical Measurements.
• Voltage Proof testing (Climatic Sequence, Final Measurements): different notes apply to VP and VPB; Note 3 is re-written (now only applicable to VPB).
• Notes 4 and 5 are re-worded (and re-numbered as necessary).

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. 3006.

See also change details above for justification for specific items.

Attachments:

3006024_draft_6b_for_dcr_review.docx, 3006024_draft_6c_for_dcr_review(2).docx

Modifications:

N/A

Approval signature:

Date signed:

2020-06-09