DOCUMENT CHANGE REQUEST

DCR number 1318	Changes required for: General	Originator: Steve Jeffery
Date: 2020/06/09	Date sent: 2020/01/27	Organisation: ESCC Executive
Status: IMPLEMENTED		

Title:	Capacitors Fixed DC Self-Healing Metallised Film Dielectric, Based on type PM90S		
Number:	3006/020	Issue:	4

Other documents affected:

Page:

All.

Paragraph:

Total reformat/re-write of ESCC Detail Specification 3006/020 issue 4 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 3006/020 issue 5 is based on other converted ESCC Detail Specifications, see the attached draft Detail specification that implements all the proposed changes:
3006020 draft 5A for DCR review.docx

The technical content of ESCC 3006/020 issue 5 remains closely based on the original ESCC 3006/020 issue 4 except as detailed herein.

Original wording:

See 3006/020 issue 4

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 3006/020 issue 5.

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 Variants” is now Type Variant(s)).

3) Para 1.5 and Figures 2(a), 2(b), Physical Dimensions (re-named “Physical Dimensions and Terminal Identification”):
• A Terminal Identification (i.e. voltage polarity symbol marking) Note is added.
• Figure 2(b) is amended (now only applicable to Variants 09 to 16, and a new Figure added for Variants 17 to 21.

4) Figure 3, Functional Diagram: A new explanatory Note is added for Variants 01 to 08 and 17 to 21, as these Variants have two rows of terminals.

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 4.2.4(b), Robustness of Terminations deviation is revised (a Robustness of Terminations test shall be performed; this ensures homogeneity with components in identical basic package, defined in Detail Spec ESCC 3006/025).
• Para 4.2.5 (b) and (c) are deleted.

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

7) Para 4.4, Materials and Finishes: Case information is no longer needed (per new Generic) and is therefore deleted; the Lead Material and Finish information is split into two subparagraphs.

8) 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 and clarification).
• The unit for Insulation Resistance, “sec”, is re-written as M.µF.
• Note 2 is re-numbered (Note 3).

9) 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 are added to the test temperatures. Associated Note 2 re-worded for clarification purposes.

10) Para 4.7.2 and Table 5 (was “Conditions for Burn-in”, now “Burn-in Conditions”):
• Note 1 is re-numbered (Note 2).
• The sentence regarding 24 ±2 hours recovery is re-worded and included in new 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

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(a)).

11) 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):
• Where limits are specified as either “Record Values” or “Table 2”, this is now a Note directing to Room Temperature Electrical Measurements.
• The Temperature Coefficient limits are amended to be the same as the equivalent limits given in High and Low Temperature Electrical Measurements.
• Note 3 is re-worded (no longer requires the information regarding VPB).
• Notes 4 and 5 are re-worded/combined into a single new Note 4.

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:

3006020_draft_5b_for_dcr_review.docx, 3006020_draft_5a_for_dcr_review.docx

Modifications:

N/A

Approval signature:

Date signed:

2020-06-09