



# DOCUMENT CHANGE REQUEST

DCR number 519

Changes required for: N/A

Originator: Torsten Schmidt

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Organisation: DLR

Status: IMPLEMENTED

Title: Resistor Fixed Chip Metal Foil, based on Type SMP-PW, SMS-PW, SMT-PW

Number: 4001/027

Issue: 2

Other documents affected:

Page:

Complete Document

Paragraph:

Complete Document

Original wording:

Proposed wording:

4.2.1 Deviations from Special In-Process Controls

a) 100% measurement of dimensions will be performed

4.2.3 Deviations from Burn-in and Electrical Measurements (Chart III)

(a) Testing Level C is not applicable.--->>> DELETING

(a) Para. 8.2, NON-LINEARITY: Not applicable

(d) Para. 7.1.1 Burn-in:

For the 100% Testing during Chart III the passive burn-in duration shall be 24 (+24, -0)h in accordance with Table 5(a) of this specification (without initial measurement and drift calculation).

For the testing of the mounted Screening Sub-lot samples during Chart III the burn-in duration shall be 168 (+24 -0)h in accordance with Table 5(b) of this specification.

Verification of different refers from DS to GS4001 Issue 2

Justification:

Updating of Detail Specification 4001/027 because change of GS 4001 Issue 1 to Issue 2.

Attachments:

N/A

Modifications:

The following amendments and additions shall be included in DCR519 to fully detail the Total reformat of this Detail Specification as part of the ongoing conversion of specifications to the ESCC format as well as making it consistent with the current issue of generic spec ESCC4001.

See below for summary of all changes; also see attached proposed 4001/027 Issue 3 Draft B.

Note: With regard to the original changes contained in DCR519, as above, they are still included in this DCR but their implementation is amended to be consistent with the other changes, as detailed in points 6 & 13 below.

Note: The layout, format and general content of 4001/027 issue 3 is based closely on other re-written/converted, published ESCC Detail Specifications (e.g. 4001/026).

Note: known support for active procurement against this specification includes the following Manufacturer: Isabellenhuetten/Germany (is willing to support procurement of all variants).

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

1. Rewording, restructure, modification and removal of various sections and paragraphs of the specification, plus other editorial changes based on the usual layout and editorial content of other Detail Specifications already converted to ESCC format.

2. Paras 1.4.1, 1.4.1.1, 1.4.2;

The Value Series specified in Para 1.4.2 is amended to reflect the E12 series of standard resistance values. See also point 14 below.

The characteristic code for resistance value, used in the ESCC Component Number, is amended accordingly in Para 1.4.1 & 1.4.1.1 (i.e. a 2 significant figure code). See also point 14 below.

The minimum resistance values in the resistance Range are amended to have 4 decimal places (e.g. 0.005 becomes 0.0050) and the maximum resistance values in the resistance Range are amended to have 1 decimal place (e.g. 1.000 becomes 1.0).

3. In the Maximum Ratings table amend "Insulation Voltage" to be "Isolation Voltage" (to be consistent with ESCC4001 & ESCC2134000)(in Para 1.5).

4. Figure 1 is deleted & the Parameter Derating Requirements moved to become notes 1 & 2 to the Maximum Ratings table (in Para 1.5).

5. Figure 3 is amended to refer to Rn.

6. Paras 4.2.1, 4.2.2, 4.2.3, 4.2.4 are amended to make the existing deviations consistent with the contents of ESCC4001 including:

- Delete the deviation from Para 4.2.3(a) that Testing Level C is not applicable.
- Add deviation to Screening Tests that Non-Linearity is not applicable.
- Delete the Overload deviation from Para 4.2.4(a) (as Overload is no longer required)
- Delete the deviation 4.2.4(d) (a typographic error)
- Note: For the 100% lot testing during Screening Tests (which was previously per testing level B) there is now no pre-burn-in electrical test and no parameter drift calculation.

7. New Para 2.4 for Resistance to Soldering Heat test is added (to be consistent with ESCC 4001).

8. Para 4.7.2 post Burn-in requirements are transferred to become note 3 to both Para 2.7.1 & 2.7.2.
9. Para 4.6.2 & Table 3. High & Low Temp Electrical Measurements: For test TCR over range 60C to 22C, which applies to the 100% lot testing, change from a 100% test to a sample of 5 components from the total production lot (to be consistent with ESCC 4001)(in Para 2.5.2).
10. Table 4 is deleted (to be consistent ESCC 4001)
11. Table 5(a) & (b) are renamed as 'No-Bias Burn-in' & 'Biased Burn-in' respectively.
12. Table 6 is amended to be consistent with 4001; Only tests that include electrical measurement are included in Para 2.6. Delete drying "Procedure I" reference from both Solderability & Resistance to Soldering Heat.
13. Appendix A for Isabellenhuetten:  
Add a deviation to Chart F2 such that the sample Dimension check may be performed on a 100% basis.
14. Appendix A for Isabellenhuetten:  
Add a deviation to the Range of Components (Para 1.4.2) such that additional values within the specified resistance range, for all variants, are available upon request from the Manufacturer.  
Add a deviation to the definition of the resistance value characteristic code used in the ESCC Component Number (Para 1.4.1.1) such that a non-standard code can be used by the Manufacturer (a mix of 2 & 3 significant figure codes, see proposed 4001/027 Issue 3 Draft B for details).

Justification

For the purposes of editorial consistency with the generic and other details specifications in the family.

In addition correction to the specified resistance value range in the main body of the spec, to be consistent with the Manufacturers baseline capability (the E12 series). The ISA appendix is amended to allow other resistance values, outside of the E12 series, to be ordered on special request.

Approval signature:



Date signed:

2009-05-19