



DOCUMENT CHANGE REQUEST

DCR number	541	Changes required for:	General	Originator:	Steve Thacker - ESCC
Date:	2009/09/10	Date sent:	2009/09/10	Organisation:	
Status:	IMPLEMENTED				

Title: Resistor Fixed Chip Metal Foil based on Type SMR-PW, SMV-PW

Number: 4001/028 Issue: 1

Other documents affected:

Page:

The layout and content of this Specification totally rewritten. See also details below.

Paragraph:

The layout and content of this Specification totally rewritten. See also details below.

Original wording:

Proposed wording:

The following amendments and additions detail the Total reformat of this Detail Specification as part of the ongoing conversion of ESCC specifications in the old ESA/SCC layout to the latest 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 4001/028 Issue 2 Draft A.

Note: The layout, format and general content of 4001/028 issue 2 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. In the Maximum Ratings Table 1(b), amend "Insulation Voltage" to be "Isolation Voltage" (to be consistent with ESCC4001 & ESCC2134000)(in Para 1.5).



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3. Figure 1 is deleted & the Parameter Derating Requirements moved to become note 1 to the Maximum Ratings table (in Para 1.5).
4. Figure 3 is amended to refer to Rn.
5. Paras 4.2.2, 4.2.3, 4.2.4, 4.2.5 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 (which replaces the equivalent deviation in Para 4.2.2(b) that Third Harmonic Control or Current Noise are not applicable).
 - Delete the Overload deviation from Para 4.2.4(a) (as Overload is no longer required for Qualification testing in ESCC 4001)
 - 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.
6. New Para 2.4 for Resistance to Soldering Heat test is added (to be consistent with ESCC 4001).
7. Para 4.7.2 requirements immediately after Burn-in are transferred to become note 3 to both Para 2.7.1 & 2.7.2.
8. Table 2, Add Insulation Resistance which is guaranteed but not tested during Screening Tests (to be consistent with Para 2.6 Intermediate and End-point Electrical Measurements)
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 (This is a specific change request from Isabellenhuetten).

Justification:

(See also change details for each item above)

Part of the ongoing activity of conversion of ESA/SCC layout 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



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format, as well as the latest ESCC Generic Specification No. 4001 issue 2.

Attachments:

N/A

Modifications:

The following amendments shall be included in DCR541; see attached proposed 4001/028 Issue 2 Draft B for details.

A. 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 B 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 B below.

For Variant 02 the minimum resistance values in the resistance Range is amended to have 4 decimal places (i.e. 0.001 becomes 0.0010).

For both Variants the maximum resistance values in the resistance Range are amended to have 1 decimal place (e.g. 4.700 becomes 4.7).

B. 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 4001/028 Issue 2 Draft B for details).

Justification

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:

2009-09-10