



## DOCUMENT CHANGE REQUEST

DCR number	1460	Changes required for:	General	Originator:	Steve Jeffery
Date:	2021/11/29	Date sent:	2021/09/07	Organisation:	ESCC Executive
Status:	IMPLEMENTED				

Title: CAPACITORS, FIXED, SELF HEALING, NON-INDUCTIVE, POLYETHYLENE TEREPHTALATE

Number: 3006/025 Issue: 5

Other documents affected:

3008/034-3, 3008/035-3, 3008/036-3, 3008/037-3, 3009/003-8, 3009/004-7, 3009/005-7, 3009/006-7, 3009/008-7, 3009/009-7, 3009/010-6, 3009/011-6, 3009/022-7, 3009/023-7, 3009/037-4, 3009/038-5, 3009/041-3, 3009/042-4, 3009/043-4, 3009/044-3, 3009/045-2, 3201/008-8, 4001/022-5, 4001/029-3

Page:

Various (see each individual Detail Specification)

Paragraph:

Various (see each individual Detail Specification)

Original wording:

See existing Detail Specifications as applicable.

Proposed wording:

The currently specified lead/terminal solder finish shall be clarified in terms of the composition of tin and lead such that the following requirements are met:

- no pure tin (> 97% purity), as specified in Para. 7.1(c) of ESCC Basic Specification No. 22600,
- the solderability requirements in the Detail Spec and the applicable Generic Spec relevant to Soldering Temperature rating and solderability test temperatures.


The following solder material definition shall replace the current definition (as applicable) in the listed specs:

"Solder finish with tin content of 50% minimum and 97% maximum, remainder lead."

Justification:

Solder composition requirements are clarified in order to:

- Eliminate the risk of tin-whisker growth (ref. ESCC No. 22600 as above)
- Ensure the 'solidus -> liquidus' transition of the specified solder meets the specified ESCC ratings in each of the listed Detail Specs, and the Generic Spec's test conditions for Solderability, i.e.  $\geq +230^{\circ}\text{C}$  where, for the case where Sn/Pb = 50/50, the temp. for 'solidus -> liquidus' transition is  $+183^{\circ}\text{C}$  to  $+214^{\circ}\text{C}$ .

Attachments:
N/A
Modifications:
N/A
Approval signature:

Date signed:
2021-11-29