

**Harmonized detail
specification for fixed
tantalum capacitors —
Porous anode, solid
electrolyte —
Cylindrical
insulated/non-insulated
metallic case,
polar/hermetic seal,
axial terminations —
Basic plus additional
assessment level**

UDC 621.319.45:669.294

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 13 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date	Comments

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Committee reference ECL/4

ISBN 0 580 12348 0

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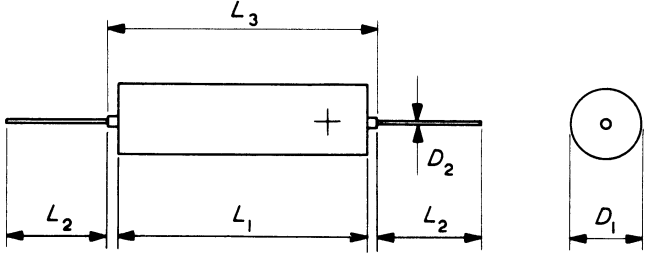
ELECTRONIC COMPONENT OF ASSESSED QUALITY IN ACCORDANCE WITH: BS E9070 (CECC 30000) BS E9073 (CECC 30200)	MANUFACTURER'S TYPE NUMBER SEE PD 9002 For ordering information see clause 5
Outline and dimensions  (See Table 1) Marking information see clause 4	TANTALUM CAPACITORS WITH SOLID ELECTROLYTE POROUS ANODE METAL CASE
	TYPICAL CONSTRUCTION: CYLINDRICAL POLAR/HERMETIC SEAL METALLIC CASE INSULATED/NON-INSULATED CASE AXIAL TERMINATIONS
	ASSESSMENT LEVEL: BASIC PLUS ADDITIONAL

Table 1 — Dimensions (see note 1)

All dimensions are in millimetres.

Case size reference	L ₁ max.	L ₂ min.	L ₃ max.	D ₁ max.	D ₂ (see note 2)	Typical mass
A	7.14	30	10.71	3.58	0.5	0.7 ^g
B	11.91	30	15.49	4.85	0.5	1.3
C	17.30	30	20.87	7.49	0.6	4.7
D	19.84	30	23.41	9.07	0.6	7.4

NOTE 1 The dimensions in Table 1 are for the uninsulated style. For the insulated style the insulation shall extend 0.4 mm minimum and 1.1 mm maximum beyond each end of the capacitor body. However, when a shrink fitted insulation is used it shall be over the ends of the body (L₁). The increase in diameter for insulated types shall not exceed 0.25 mm.

NOTE 2 Tolerances on the wire dimensions are given in IEC 301.

See the relevant Qualified Products List for availability of components made to this detail specification.

This standard is identical with BS E9073 N001 including amendments which is withdrawn on publication of this standard.

1 Ratings (including limiting conditions of use) and characteristics

		Table number
Capacitance range	Capacitance values are taken from the E12 series of BS 2488 (IEC 63)	Table 2A
Capacitance tolerances	$\pm 5 \%$, $\pm 10 \%$, $\pm 20 \%$	
Rated voltage U_R		Table 2A
Category voltage U_C		Table 2A
Surge voltage	130 % of the rated or category voltage.	Table 3A
Reverse voltage	≤ 1 V or 10 % of the category voltage, whichever is the less	
Rated temperature	85 °C	
Leakage current		Table 2B
Tangent of loss angle		Table 2B
Impedance		Table 2C
Ripple ratings	See Appendix A for graphs of r.m.s. ripple voltage over a range of frequencies. Derating factors are given in Table 3B.	Table 3B
Environmental classification	55/125/56	
Bump severity	390 m/s ²	
Shock severity	980 m/s ²	
Vibration severity	0.75 mm or 98 m/s ² whichever is the less	
Acceleration severity	980 m/s ²	
Low air pressure	10 mbar ^a	
Resistance to soldering heat	350 °C	

^a 1 mbar = 10^2 N/m² = 100 Pa.

2 Additional information (not for inspection purposes)

The reliability of these capacitors depends on circuit impedance. In very low impedance (e.g. less than 3Ω V) circuits, such as power supplies, particular care is necessary to ensure that the surge voltage rating is not exceeded. This may necessitate voltage derating of up to 50 %.

The main mode of failure is high leakage current or short circuit.

These capacitors may not meet the above mechanical severities when mounted solely by their leads.

This type of capacitor is designed to operate over the temperature range – 55 °C to + 85 °C and with proper derating to + 125 °C (see Table 3A and Table 3B).