

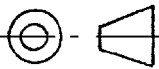
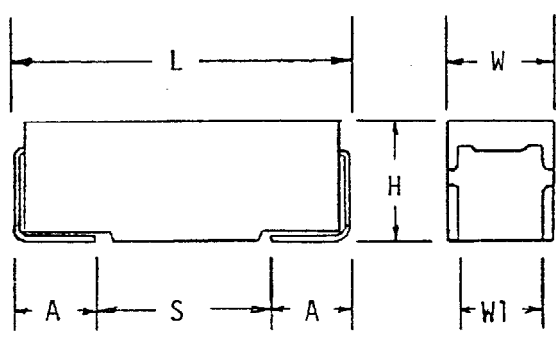
BRITISH STANDARDS INSTITUTION 2, PARK STREET, LONDON, W1A 2BS	
Specification available from:- As shown in PD 9002, CECC 00 200 and AVX LIMITED, TANTALUM DIVISION, LONG ROAD, PAIGNTON, DEVON TQ4 7ER	BS CECC 30 801-005 ISSUE 1 DATE November 1987 Number of pages 16
ELECTRONIC COMPONENTS OF ASSESSED QUALITY DETAIL SPECIFICATION IN ACCORDANCE WITH BS CECC 30 000 1984 BS CECC 30 800 1978	MANUFACTURER'S TYPE NUMBER TAJ SEE PD 9002 AND CECC 00 200
Outline and dimensions   Marking information: See Clause 5.0	For ordering information see Clause 6.0 TANTALUM CHIP CAPACITOR POLAR SOLID ELECTROLYTE METALLISED TERMINATIONS STYLE 1 Complies with the minimum requirements of TABLES 2 & 3 of BS CECC 30 800 Issue 1

TABLE 1 DIMENSIONS RELATED TO CASE SIZE

Case Size	$L \pm 0.2$	$W +0.2/-0.1$	(All dimensions are in mm)				$H \text{ max}$	$W1 \pm 0.1$	$A +0.3/-0.2$	$S \text{ min}$
A	3.2	1.6					1.8	1.2	0.8	1.1
B	3.5	2.8					2.1	2.2	0.8	1.4
C	6.0	3.2					2.8	2.2	1.3	2.9
D	7.3	4.3					3.1	2.4	1.3	4.4

NOTE: W1 dimension applies to the termination width for the 'A' Dimension only.

Information on availability of components qualified to this detail specification are given in the Qualified Product Lists PD 9002 and CECC 00 200

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2.0 METHOD OF MOUNTING

2.1 Methods of mounting the units for normal use include:-

- a) Reflow soldering by direct heat using solder paste or solder preforms.
- b) Vapour Phase reflow soldering using solder paste or solder preforms.
- c) Wave soldering.

Limiting factors are:-

- 1) Temperature : Temperature should not exceed 260°C.
- 2) Duration : Time duration should not exceed 10 seconds at maximum temperature for reflow soldering, and 5 seconds for wave soldering.

Nominal temperature and duration : 230°C for 10 seconds.

2.2 For Qualification Testing the mounting method detailed in the Sectional Specification BS CECC 30 800 Clause 4.8 applies.

3.0 RATING AND CHARACTERISTICS

Style	Style 1 - Encapsulated
Capacitance range	See Table 2A
Tolerance on Rated Capacitance - standard	± 10%, ± 20%
Rated Voltage	See Table 2A
Category Voltage	See Table 2A
Climatic Category	55/125/56
Rated Temperature	85°C
Category Temperature	125°C
Variation of Capacitance with Temperature	See Table 3
Leakage Current	See Table 3
Impedance at 100 kHz	See Table 2B
Tangent of Loss Angle	$: \quad U_R \quad \begin{matrix} > 10V \\ > 10V \\ < 10V \end{matrix} \quad - \quad \begin{matrix} < 0.04 \text{ for } C < 1.0 \mu F \\ < 0.06 \text{ for } C > 1.0 \mu F \\ < 0.06 \end{matrix}$

TABLE 2A

CAPACITANCE AND VOLTAGE RELATED TO CASE SIZE

CAPACITANCE μF	U_R	4.0	6.3	10	16	20	25	35	50
	U_C	2.5	4.0	6.3	10	12.6	16	23	33
CASE SIZE									
0.1								A	A
0.15								A	B
0.22								A	B
0.33								A	B
0.47							A	B	C
0.68						A		B	C
1.0					A			B	C
1.5				A			B	C	D
2.2			A		B	B		C	D
3.3	A				B		C	C&D	D
4.7				B	C	C	C&D	D	D
6.8			B		C	C&D	D	D	
10	B			C	C&D		D	D	
15			C	C&D		D	D		
22	C		C&D		D	D			
33	C			D	D				
47	D		D	D					
68	D		D						
100	D		D						

NOTE: Units may be operated at voltages less than their Rated/Category Voltage.

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TABLE 2 IMPEDANCE (100kHz)

Capacitance OR uFV	Impedance in Ohms - max.
C < 0.68 uF	50
CU < 30 uFV	20
CU > 30 uFV	15
CU > 75 uFV	7.5
CU > 360 uFV	2.5

TABLE 3 CHARACTERISTICS AT HIGH AND LOW TEMPERATURE

U _R (V)	C _R (uF)	Capacitance Change (%)			Maximum Values Tan Delta				Leakage Current (uA)		
		-55°C	+85°C	+125°C	+20°C	-55°C	+85°C	+125°C	+20°C (1)	+85°C (1)	+125°C (1)(2)
4.0	3.3 to 100	-8%	+8%	+12%	0.06	0.09	0.072	0.09	0.01 CU or 0.5	0.10 CU or 1	0.125 CU or 1
6.3	2.2 to 100	"	"	"	"	"	"	"	"	"	"
10	1.5 to 47	"	"	"	"	"	"	"	"	"	"
16	1.0	"	"	"	0.04	"	"	"	"	"	"
	2.2 to 33	"	"	"	0.06	"	"	"	"	"	"
20	0.68	"	"	"	0.04	"	"	"	"	"	"
	2.2 to 22	"	"	"	0.06	"	"	"	"	"	"
25	0.47	"	"	"	0.04	"	"	"	"	"	"
	1.5 to 15	"	"	"	0.06	"	"	"	"	"	"
35	0.1 to 1.0	"	"	"	0.04	"	"	"	"	"	"
	1.5 to 10	"	"	"	0.06	"	"	"	"	"	"
50	0.1 to 1.0	"	"	"	0.04	"	"	"	"	"	"
	1.5 to 4.7	"	"	"	0.06	"	"	"	"	"	"

- (1) Whichever is the greater
(2) Measured with category voltage