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BS CECC 30 201-010

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SPECIFICATION AVAILABLE FROM:- AS SHOWN
IN PD 9002 CECC 00200 AND

ITT COMPONENTS GROUP EUROPE
STANDARD TELEPHONES & CABLES LTD,
BRIXHAM ROAD,
PAIGNTON, DEVON TQ4 7BE.



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ELECTRONIC PARTS OF ASSESSED QUALITY
DETAIL SPECIFICATION IN ACCORDANCE WITH

BSE 9070 (CECC 30 000)

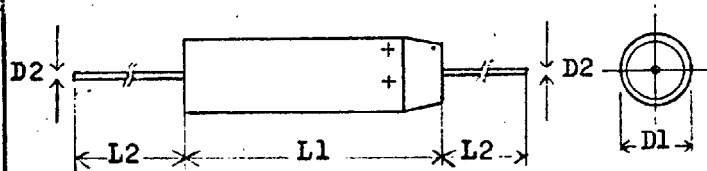
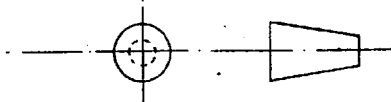
BSE 9073 (CECC 30 200)

MANUFACTURER'S TYPE: TAR

See PD 9002 and CECC 00 200

For ordering information
See Clause 6.

Outline and dimensions: Third angle projection



(See table 1 below) All dimensions are in
millimetres.

Marking information see clause 5.

TANTALUM CAPACITOR
SOLID ELECTROLYTE
POROUS ANODE
POLAR

RESIN MOULDED
CYLINDRICAL CASE
AXIAL TERMINATIONS

QUICK REFERENCE DATA:

RATED CAP RANGE 0.1 - 68 μ F

CAPACITANCE TOLERANCE 10 or 20%

RATED VOLTAGE RANGE 6.3 - 35 VDC

CLIMATIC CATEGORY 55/85/56

ASSESSMENT LEVEL:

FULL PLUS ADDITIONAL (LONG LIFE GRADE)

TABLE 1. DIMENSIONS (mm)

CASE SIZE	L1 MAX	L2 MIN	D1 MAX	D2 NOM	TYPICAL MASS (grams)
R	7.65	25	2.75	0.5	0.26
S	8.85	25	4.55	0.5	0.54
T	13.75	25	5.05	0.5	0.95

NOTE: Up to 0.2mm of "gate" flash is allowed on both ends of the body; which may exceed specified L1 maximum

Clause 1. Tolerances on the wire dimensions are given in IEC 301

REFER TO QUALIFIED PRODUCTS LIST PD 9002 AND/OR CECC 00200 FOR DETAILS OF
MANUFACTURERS APPROVED TO THIS SPECIFICATION

2. SPECIFIED METHOD OF MOUNTING FOR VIBRATION, BUMP, SHOCK AND ACCELERATION.

The component shall be mounted by clamping the body and the terminations.

3. RATINGS AND CHARACTERISTICS

Grade	Type 3	
Capacitance range	Capacitance values are taken from the E12 series of BS 2488 (IEC 63)	(See Table 2A)
Capacitance tolerances	$\pm 10\%$, $\pm 20\%$	
Rated voltage		(See Table 2A)
Category voltage	Equal to rated voltage	(See Table 2A)
Surge voltage	130% of the rated voltage	(See Table 3A)
Rated temperature	85°C	
Leakage current		(See Table 2D)
Tangent of loss angle		(See Table 2B)
Impedance		(See Table 2C)
Environmental classification	55/85/56	
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	2 kPa (20 mbar)	
Resistance to soldering heat	350°C	
Ripple Ratings	See graphs (App. 1 and 2)	

3.1. Additional information (not for inspection purposes)

The reliability of these capacitors depends on circuit impedance. In very low impedance (e.g. less than 3Ω per volt) 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.

TABLE 2A. VALUES OF CAPACITANCE AND VOLTAGE RELATED TO CASE SIZE

Capacitance μ F	Rated V	<u>6.3</u>	<u>10</u>	<u>16</u>	20	<u>25</u>	<u>35</u>
0.10							R
0.12							R
0.15							R
0.18							R
0.22							R
0.27							R
0.33							R
0.39							R
0.47							R
0.56							R
0.68							R
0.82							R
1.0							R
1.2							R
1.5						R	S
1.8						R	S
2.2						R	S
2.7					R	S	S
3.3				R		S	S
3.9				R		S	S
4.7			R			S	S
5.6			R			S	T
6.8			R			S	T
8.2		R			S	T	T
10		R			S	T	T
12		R		S		T	
15				S		T	
18			S		T		
22		S	S		T		
27		S		T			
33		S		T			
39			T				
47			T				
56		T					
68		T					

- Notes 1. Letters indicate case size
 2. Preferred rated voltages are underlined.
 3. The capacitors may be used for any lower voltage rating.

TABLE 2B. CAPACITANCE CHANGE, TAN DELTA, AND LEAKAGE CURRENT

TEST TEMPERATURE	CAP CHANGE	TAN DELTA	LEAKAGE CURRENT MAX (1)
Room Temp.	-	0.06	As table 2D
- 55 °C + 2	≤ 12 %	0.08	-
+ 85 °C + 2	≤ 12 %	0.10	10 x requirement of table 2D

(1) Measured at rated voltage at room temperature and at rated voltage at rated temperature.

TABLE 2C IMPEDANCE AT 100 kHz (C ≥ 0.68 μF only)

CASE SIZE	IMP (Ω) (MAX)
R	10
S	5
T	5