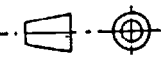
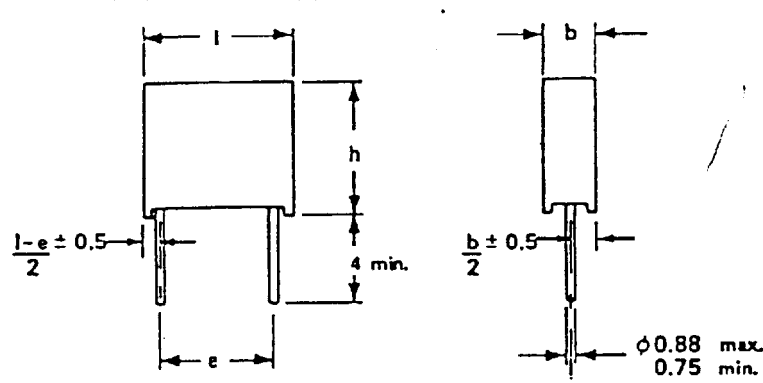


BRITISH STANDARDS INSTITUTION 2, PARK STREET, LONDON, W1A 2BS	BS CECC 30 501-007
Specification available from:- as shown in PD 9002, CECC 00 200 and ASHCROFT ELECTRONICS LTD. SOMERFORD ROAD, CIRENCESTER, GLOS. GL7 1TW TELEPHONE 0285 67756 TELEX 43619	ISSUE 1 SEPT 1982  Page 1 of 16 pages
ELECTRONIC COMPONENTS OF ASSESSED QUALITY DETAIL SPECIFICATION IN ACCORDANCE WITH BS E9070: 1975 CECC 30 000 BS CECC 30 500: 1978	MANUFACTURER'S TYPE NUMBER M2 series See PD 9002 & CECC 00 200 For ordering information see clause 6
Outline and dimensions First angle projection  All dimensions in mm See Table 1  Marking information - see clause 5	FIXED METALLISED POLYCARBONATE FILM DIELECTRIC D.C. CAPACITOR RECTANGULAR PLASTIC CASE RADIAL TERMINATIONS LONG LIFE USE FULL ASSESSMENT

1. DIMENSIONS

Table 1

Pattern reference	b max	h max	l max	e		
				min	nom	max
1	4.0	9.5	13.0	9.5	10.16	10.5
2	4.5	9.5	13.0			
3	5.5	11.0	13.0			
4	5.5	11.5	13.0			
5	6.5	12.5	13.0			
6	5.5	11.0	18.0	14.5	15.24	15.6
7	5.5	11.5	18.0			
8	6.5	12.5	18.0			
9	7.5	14.0	18.0			
10	8.5	14.5	18.0			
11	8.5	15.0	18.0			
12	7.5	16.5	26.5	22.2	22.86	23.2
13	7.5	17.0	26.5			
14	8.5	18.5	26.5			
15	10.5	19.0	26.5			
16	11.5	21.0	31.5	27.2	27.94	28.3
17	11.5	22.0	31.5			
18	13.5	24.0	31.5			

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 AND SHOCK TESTING

Each capacitor shall be mounted on a rigid surface plate to simulate a printed circuit board, the body being pressed firmly against the mounting surface and fixed by soldering the leads. Units of mass greater than 3 g shall also have their bodies clamped.

3. RATINGS AND CHARACTERISTICS

Grade	Long life use
Capacitance range	See Table 2 The preferred values are those of the E6 series of BS 2488. Where the use of intermediate values is essential they shall be chosen from that document
Capacitance tolerance	1%, 2%, 5%, 10%, 20%
Rated voltage	See Table 2
Rated temperature	85 °C
Tangent of the loss angle	
C_r not greater than 1 uF	30×10^{-4} maximum at 1 kHz
C_r greater than 1 uF	50×10^{-4} maximum at 1 kHz
Insulation resistance	
C_r not greater than 0.33 uF	
U_r not greater than 100 V	15 Gohm minimum
U_r greater than 100 V	30 Gohm minimum
C_r greater than 0.33 uF	
U_r not greater than 100 V	5 ks minimum
U_r greater than 100 V	10 ks minimum
Climatic category	55/100/56

TABLE 2

CAPACITANCE AND VOLTAGE

Rated voltage at 85°C	63Vd.c.	160Vd.c.	250Vd.c.	400Vd.c.
Category voltage at 100°C	50Vd.c.	130Vd.c.	200Vd.c.	320Vd.c.
Rated capacitance (uF)				
0.01	-	-	-	1
0.015	-	-	-	1
0.022	-	-	1	2
0.033	-	-	1	3
0.047	-	-	2	7
0.068	-	1	3	7
0.1	-	1	6	8
0.15	1	4	6	10
0.22	1	5	6	12
0.33	2	6	9	14
0.47	3	8	13	15
0.68	6	9	14	16
1.0	8	10	14	18
1.5	9	12	17	-
2.2	11	14	17	-
3.3	13	15	-	-
4.7	14	16	-	-
6.8	15	18	-	-
10.0	16	-	-	-

Note 1: The numbers in columns 2 to 5 are preferred pattern numbers. The next lower pattern number is permitted. See clause 6.

Note 2: The preferred pattern number for intermediate values is that corresponding to the next higher preferred value.

4. RELATED DOCUMENTS

BS 2011 (IEC 68)	Basic environmental testing procedures
BS 2488	Schedule of preferred numbers for the resistance of resistors and the capacitance of capacitors
BS 6001	Sampling procedures and tables for inspection by attributes
BS 9000 Part 1	General Requirements for a system for electronic components of assessed quality Specification of basic rules and procedures
BS E9000 Part 2	General requirements for electronic components of assessed quality harmonized with the CENELEC Electronic Component Committee System Rules of procedure
BS E9070 (CECC 30 000)	Generic specification for fixed capacitors
BS CECC 30 500	Sectional specification: Fixed metallized polycarbonate film dielectric d.c. capacitors
CECC 00 200	Qualified products list
PD 9002	BS9000 - BS CECC Qualified products list

5. MARKING INFORMATION

The following information will be marked on the capacitor:

- (1) Rated capacitance
- (2) Rated voltage
- (3) Tolerance on rated capacitance (in percent)
- (4) Type number
- (5) Week and year of manufacture

6. ORDERING INFORMATION

Orders for components to this specification shall include the following minimum information:

- (1) Quantity
- (2) Rated capacitance
- (3) Tolerance on rated capacitance
- (4) Rated voltage
- (5) Manufacturer's type number
- (6) BS specification number and issue number
- (7) Length of terminations
- (8) Pattern number, if other than the preferred pattern number
(see Table 2)

The specification is taken to include all current amendments

7. QUALIFICATION APPROVAL AND QUALITY CONFORMANCE INSPECTION

For qualification approval test and quality conformance inspection the test schedule, severities and requirements given in the sectional specification, apply.

In addition Table 4 specifies the tests, severities and requirements

8. CERTIFIED TEST RECORDS

Not required