

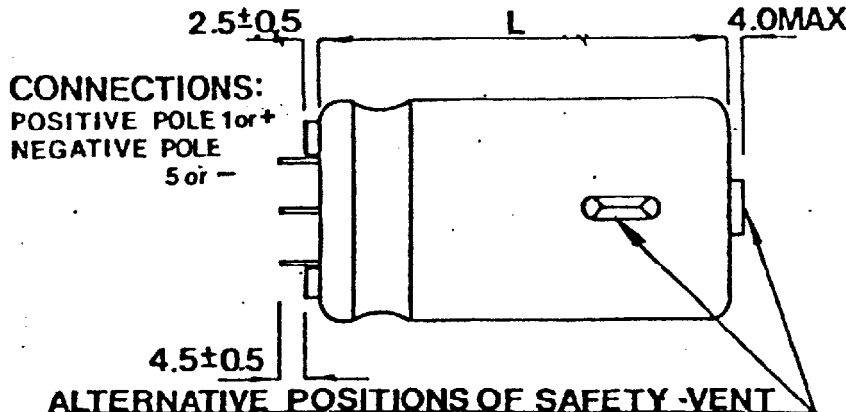


SPECIFICATION AVAILABLE FROM:- FILM CAP,
MILWARD, STC
AS SHOWN IN PD 9002, CECC 00 200

PAGE 1 OF 22.

ELECTRONIC COMPONENTS OF ASSESSED QUALITY
DETAIL SPECIFICATION IN ACCORDANCE WITH:
BSE 9070 (CECC 30.000) 1975
BS CECC 30.300 (CECC 30.300) 1978

MANUFACTURERS TYPE NUMBER
SEE PD 9002 AND CECC 00 200
FOR ORDERING INFORMATION SEE CLAUSE 6

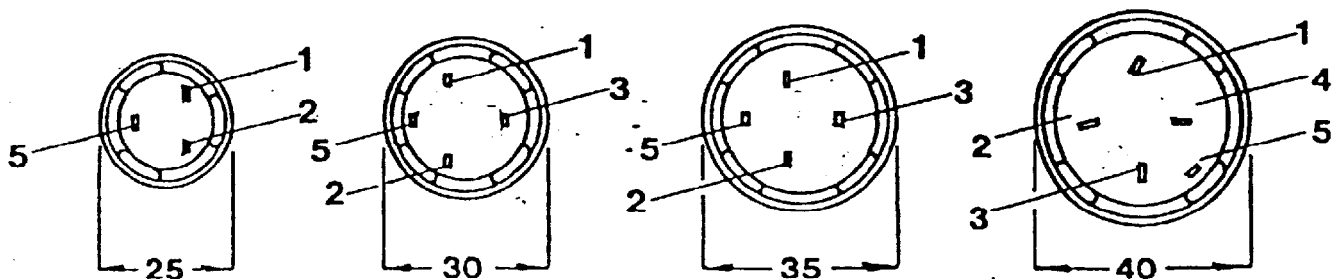


ALUMINIUM ELECTROLYTIC
TYPE 1 WITH NON SOLID
ELECTROLYTE, CYLINDRICAL
INSULATED CASE.

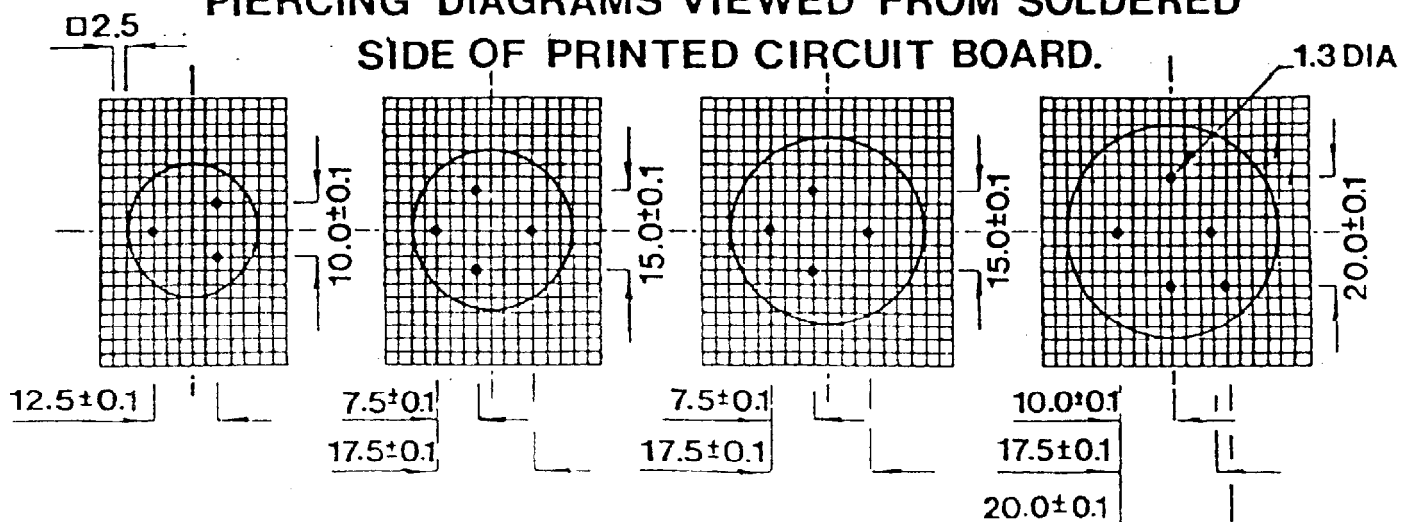
PLAIN CAN STYLES A & C.
STUDED CAN STYLE B.

FULL ASSESSMENT
LONG LIFE GRADE

STYLE A



PIERCING DIAGRAMS VIEWED FROM SOLDERED SIDE OF PRINTED CIRCUIT BOARD.



DIMENSIONS IN MILLIMETRES

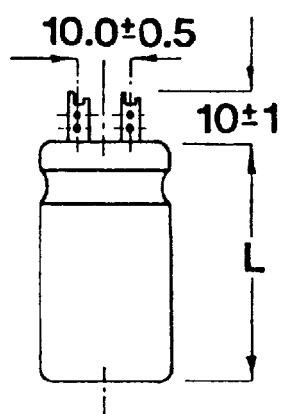


Documents

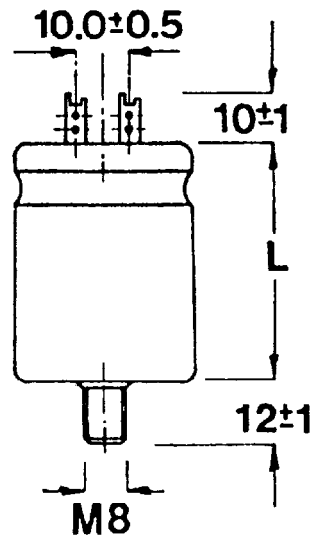
Document Sharing Hub

CECC 301-033-10E DE*220 197444000 6644441 197444000 6644441

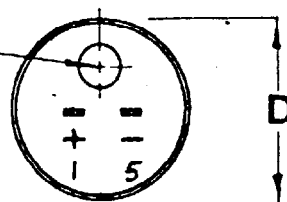
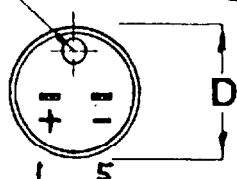
STYLE C



STYLE B



SAFETY VENT.



ON 40m.m. DIAMETER CASES, TAG SPACING OF 20.0 ± 0.5 PERMISSIBLE.

1. DIMENSIONS

TABLE 1. Dimensions (mm)

Case size	Diameter $D \pm 1$	Length $L \pm 2$
1	25	35
2	25	45
3	30	45
4	35	45
5	35	55
6	40	45
7	40	55
8	40	75
9	40	105

2. SPECIFIED METHOD OF MOUNTING FOR VIBRATION AND BUMP TESTING

Style A and C: by the body (clamped)

Style B : by the stud

3. RATINGS AND CHARACTERISTICS

3.1 Application grade	Long life use
3.2 Rated capacitance range	See table 2A
3.3 Capacitance tolerance	-10% +30%
3.4 Rated voltage range U_R	See table 2A
3.5 Category voltage U_C	As rated voltage
3.6 Category temperature range	-40°C to +85°C
3.7 Rated temperature	85°C
3.8 Insulation resistance	$\geq 100M\Omega$
3.9 Climatic category	40/085/56
3.10 Leakage current	$(0.006CU + 4)\mu A$ (see note 2)
3.11 Bump test severity	390m/s ² , 4000 $\pm$ 10 bumps
3.12 Vibration test severity	10Hz to 500Hz 0.75mm or 10g
3.13 Low air pressure	8.5KPa (85mbar)
3.14 Maximum ripple current at 100Hz	see table 2B
3.15 Tangent of loss angle	see table 2B2
3.16 Voltage proof	1000V for 1 minute
3.17 Maximum impedance at 10KHz and 20°C	see table 2B1

TABLE 2A. VALUE OF CAPACITANCE AND OF VOLTAGE RELATED TO CASE
SIZE (see note 1).

Capacitance uF	Rated Voltage (U _R) d.c.									
	10	16	25	40	63	100	160	250	$\frac{385}{400}$	450
22										1
33										1
47									1	1
68									2	2
100								1	3	3
150							1	2	4	5
220							2	3	5/6	7
330							3	4	7	8
470						1	4	5/6	8	9
680						2	5/6	7	9	
1,000					1	3	7	8		
1,500				1	2	4	8	9		
2,200			1	2	3	5/6	9			
3,300		1	2	3	4	7				
4,700	1	2	3	4	5/6	8				
6,800	2	3	4	5/6	7	9				
10,000	3	4	5/6	7	8					
15,000	4	5/6	7	8	9					
22,000	5/6	7	8	9						
33,000	7	8	9							
47,000	8	9								
68,000	9									

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TABLE 2B. MAX. RIPPLE CURRENT (AMPS) AT 100HZ AND 85°C
(see note 3).

Capacitance uF	Rated Voltage (U _R) d.c.									
	10	16	25	40	63	100	160	250	$\frac{385}{400}$	450
22										.24
33										.3
47									0.4	.35
68									0.6	.5
100								0.6	0.8	.65
150							0.8	0.8	1.0	.8
220							1.0	1.0	1.3/1.3	1.1
330							1.1	1.4	1.7	1.5
470						1.2	1.5	1.8/1.8	2.8	2.1
680						1.7	2.0/2.0	2.3	3.0	
1,000					1.8	2.2	2.2	3.0		
1,500				2.0	2.5	2.6	3.0	3.5		
2,200			2.3	2.7	3.1	3.2/3.0	3.6			
3,300		2.4	3.1	3.3	3.6	3.6				
4,700	2.4	3.1	3.7	3.8	4.4/3.8	5.0				
6,800	3.2	3.7	4.1	4.7/4.1	4.7	6.9				
10,000	3.8	4.1	5.0/4.2	4.9	6.2					
15,000	4.1	5.0/4.2	5.0	6.6	8.5					
22,000	5.0/4.2	5.0	6.8	9.0						
33,000	5.0	6.7	9.2							
47,000	6.8	9.1								
68,000	9.2									

TABLE 2B1. MAX. IMPEDANCE @ 20°C AND 10KHZ. (MILLIOHMS).

Capacitance uF	Rated Voltage (U _R) d.c.									
	10	16	25	40	63	100	160	250	$\frac{385}{400}$	450
22										5,000
33										3,600
47									2,200	2,800
68									1,350	2,000
100								1,300	850	1,500
150							800	850	525	950
220							550	550	350/420	650
330							400	400	230	420
470						300	310	290/350	160	300
680						210	250/290	190	160	
1,000					74	150	150	140		
1,500				68	54	120	120	120		
2,200			52	51	41	90/110	100			
3,300		50	38	41	35	75				
4,700	50	37	31	35	27/33	55				
6,800	37	30	28	27/33	27	40				
10,000	29	27	21/27	27	20					
15,000	26	21/27	22	20	16					
22,000	21/27	22	17	16						
33,000	22	17	14							
47,000	17	14								
68,000	14									

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TABLE 2B2. MAX. TANGENT OF THE LOSS ANGLE @ 20°C AND 100HZ

Cap. uF	Rated Voltage (U _R) d.c.									
	10	16	25	40	63	100	160	250	$\frac{385}{400}$	450
22										.12
33										.14
△ 47									.108	.15
68									.094	.16
100								.147	.090	.16
150							.086	.135	.089	.18
220							.088	.135	.090/.108	.18
330							.113	.135	.092	.16
470						.142	.115	.138/.161	.092	.15
680						.133	.117/.119	.139	.111	
1,000					.116	.139	.123	.139		
1,500				.153	.122	.147	.135	.159		
2,200			.176	.138	.129	.151/.173	.135			
3,300		.243	.178	.167	.143	.189				
4,700	.319	.250	.200	.184	.161/.177	.188				
6,800	.306	.289	.233	.200/.250	.244	.189				
10,000	.359	.343	.270/.302	.327	.245					
15,000	.515	.404/.453	.417	.319	.257					
22,000	.557/.647	.611	.467	.341						
33,000	1.051	.701	.512							
47,000	.960	.729								
68,000	1.055									