

2222 122 – small
long life – high stability – resin dipped



Nominal capacitance range (E6 series)	0,1 to 68 μF
Tolerance on nominal capacitance	-10 to +50%
Rated voltage range, U_R (R5 series)	6,3 to 40 V
Category temperature range	-55 to +125 °C
Endurance test at 85 °C, U_R applied	5000 h
Climatic category IEC 68	55/125/56

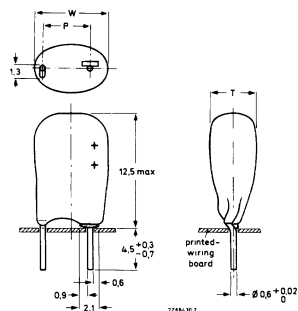
Selection chart for C_{nom} – U_R and relevant case sizes

C_{nom} μF	U_R (V)				
	6,3	10	16	25	40 ¹⁾
0,1					1
0,15					1
0,22					1
0,33					1
0,47					2
0,68				1	2
1				1	3
1,5				1	4
2,2			1	2	
3,3			1	2	
4,7		1	2	3	
6,8		1	2	4	
10	1	2	3		
15	1	2	4		
22	2	3			
33	3	4			
47	4				
68	4				

¹⁾ 85 °C < T ≤ 125 °C: 25 V

Dimensions (mm)

case size	W_{max}	T_{max}	P_{min}
1	8	3,5	5
2	8	4,5	5
3	8	5	5
4	8	6	5



Composition of the catalogue no.

2222 122 5				
U_R			first two digits of capacitance value in μF	factor
3 = 6,3 V	6 = 25 V			7 = 0,01
4 = 10 V	7 = 40 V			8 = 0,1
5 = 16 V				9 = 1

electrolytic and solid capacitors

solid aluminium

2222 141 — standard
hermetic seal

Established reliability, MIL-C-39003, style CSR13.
Hermetic seal tubular case, axial leads.

Nominal capacitance range (E12 series)	0,1 to 330 μ F
Tolerance on nominal capacitance	$\pm 20\%$, $\pm 10\%$
Rated voltage range, U_R	6 to 75 V
Category temperature range at U_R	-55 to $+85$ °C
at $0,67 \times U_R$	-55 to $+125$ °C
Basic specification	MIL-C-39003/01, style CSR 13
Climatic category, IEC 68 at U_R	55/085/56
at $0,67 \times U_R$	55/125/56

Selection chart for C_{nom} — U_R and relevant case sizes.

C_{nom} μ F	U_R (V)				
	10	15	20	50	75
0,1				A	A
0,12				A	A
0,15				A	A
0,18				A	A
0,22				A	A
0,27				A	A
0,33				A	A
0,39				A	A
0,47				A	A
0,56				A	A
0,68				A	A
0,82				A	B
1				A	B
1,2			A	B	B
1,5			A	B	B
1,8			A	B	B
2,2			A	B	B
2,7		A		B	B
3,3		A		B	B
3,9	A			B	B
4,7	A			B	C

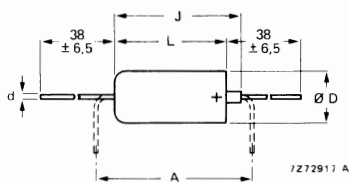
C_{nom} μ F	U_R (V)						
	6	10	15	20	35	50	75
5,6	A				B	C	C
6,8	A				B	C	C
8,2				B		C	C
10				B		C	C
12				B		C	D
15				B		C	D
18						C	
22			B			C	D
27		B		C	D		
33		B		C	D		
39		B		C	D		
47	B			C	D		
56	B			C	D		
68			C	D			
82		C		D			
100		C		D			
120		C	D				
150	C		D				
180	C	D					
220		D					
270	D						
330	D						

Composition of the catalogue no.

2222 141 . . .
dash number of failure rate level to MIL-C-39003/1E
case size
1 = case A
2 = case B
3 = case C
4 = case D

Dimensions (mm)

case size	A	D	L	J _{max}	d
A	12,7	3,43	7,26	10,72	0,51
B	17,8	4,70	+ 0,41 - 0,38	12,04	15,49
C	25,4	7,34	17,42	20,88	0,64
D	27,9	8,92	19,96	23,42	0,64



MILITARY CODING SYSTEM

CSR13	F	476	K	P
				Failure rate level in %/1000 h L = 2 P = 0,1 S = 0,001 M = 1 R = 0,01
				Tolerance on C _{nom} K = ± 10% M = ± 20%
				Capacitance Nominal capacitance in pF. First two digits are significant figures, third figure is number of zeros to follow. Example: 476 means 47 µF, 475 means 4,7 µF
				Rated voltage -55 to +85 °C B = 6 V F = 35 V C = 10 V G = 50 V D = 15 V H = 75 V E = 20 V J = 100 V
				Style, CSR13 Established reliability sintered tantalum anode solid electrolyte capacitor. Insulated case only.

Note. Military number does not designate case size.
Use selection chart for C_{nom}-U_R for available case sizes.

electrolytic and solid capacitors

solid aluminium

2222 143 — hermetic seal

Nominal capacitance range (E6 series)	0,1 to 330 μ F
Tolerance on nominal capacitance	$\pm 20\%$, $\pm 10\%$
Rated voltage range, U_R	6 to 50 V
Category temperature range at U_R	-55 to $+85$ °C
	at $0,67 \times U_R$ -55 to $+125$ °C
Endurance test at 85 °C, U_R applied	2000 h
Basic specification	MIL-C-39003
Climatic category, IEC 68 at U_R	55/085/56
	at $0,67 \times U_R$ 55/125/56

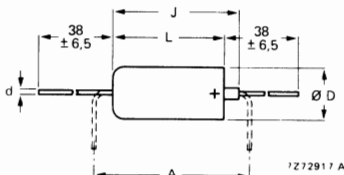
Selection chart for C_{nom} — U_R and relevant case sizes

C_{nom} μ F	U_R (V)					
	6	10	15	20	35	50
0,1					A	A
0,12					A	A
0,15					A	A
0,18					A	A
0,22					A	A
0,27					A	A
0,33					A	A
0,39					A	A
0,47					A	A
0,56					A	A
0,68					A	A
0,82					A	A
1					A	A
1,2				A	B	B
1,5				A	B	B
1,8				A	B	B
2,2				A	B	B
2,7			A		B	B
3,3			A		B	B
3,9		A			B	B
4,7		A			B	B
5,6	A				B	C

C_{nom} μ F	U_R (V)					
	6	10	15	20	35	50
6,8	A				B	C
8,2				B	C	C
10				B	C	C
12				B	C	C
15				B	C	C
18			B		C	C
22			B		C	D
27		B			C	D
33		B			C	D
39		B			C	D
47	B				C	D
56	B				C	D
68			C		D	
82			C		D	
100			C		D	
120			C		D	
150			C	D		
180	C	D				
220		D				
270	D					
330	D					

Dimensions (mm)

case size	A	D	L	J _{max}	d
A	12,7	3,43	7,26	10,72	0,51
B	17,8	4,70	12,04	15,49	0,51
C	25,4	7,34	17,42	20,88	0,64
D	27,9	8,92	19,96	23,42	0,64



Composition of the catalogue no.

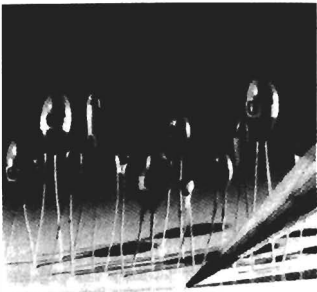
	2222 143		
tolerance on capacitance	U _R	first two digits of capacitance value in μF	factor
1 = $\pm 20\%$	3 = 6 V		1 = 10
	4 = 10 V		9 = 1
8 = $\pm 10\%$	5 = 15 V		8 = 0,1
	6 = 20 V		7 = 0,01
	7 = 35 V		
	8 = 50 V		

electrolytic and solid capacitors

solid tantalum

2222 146 – subminiature resin dipped

These capacitors are eminently suitable for use in electronic circuitry and are especially designed for those applications where extremely small dimensions are an absolute must and also a high stability and reliability are required, such as hearings-aids, electronic watches and paging systems.



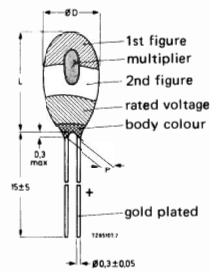
Nominal capacitance range (E6 series)	0,01 to 68 μ F
Tolerance on nominal capacitance	-20 to +20%
Rated voltage range, U_R (R5 series)	1,6 to 25 V
Category temperature range	-55 to +85 °C
Endurance test at 85 °C, U_R applied	2000 h
Climatic category IEC 68	55/085/21

Dimensions (mm)

case size	D max	L max	P $\pm$ 0,3
1	2	2,7	1
2	2	4	1
3	2	4,9	1
4	3,2	4,5	1,1
5	4	7,5	1,2

Selection chart for C_{nom} – U_R and relevant case sizes

C_{nom} μ F	U_R (V)						
	1,6	2,5	4	6,3	10	16	25
0,01							1
0,015							1
0,022							1
0,033							1
0,047							1
0,068							1
0,1							1
0,15							1
0,22						1	2
0,33					1		2
0,47				1		2	3
0,68			1		2		3
1,0		1		2		3	4
1,5	1		2		3		4
2,2	1	2		3		4	5
3,3	2		3		4		5
4,7	2	3		4			5
6,8	3		4			5	
10	3	4			5		
15	4			5			
22	4		5				
33		5					
47	5						
68	5						



value figs (μ F)		multiplier	U_R V (d.c.)	colour code
1st	2nd			
—	0	1	10	black
1	1	—	1,6	brown
2	2	—	4	red
3	3	—	—	orange
4	4	—	6,3	yellow
5	5	—	16	green
6	6	—	—	blue
7	7	0,001	—	violet
8	8	0,01	25	grey
9	9	0,1	2,5	white

Composition of the catalogue no.

2222 146 1			
U_R		first two digits of capacitance value in μ F	factor
0 = 1,6 V	4 = 10 V		6 = 0,001
1 = 2,5 V	5 = 16 V		7 = 0,01
2 = 4 V	6 = 25 V		8 = 0,1
3 = 6,3 V			9 = 1