

+125°C Non-Polar, Miniature Aluminum Capacitors

M39018/02

- Styles CU14 and CU15

General Specifications-

Operating Temperature:

-55 to +125°C

Voltage Range:

7.0 – 250 VDC

Capacitance Range:

0.68μF to 680μF

Capacitance Tolerance:

-10%/+30%

-10%/+50%

-10%/+75%

Case Size Range:

0.296" X 1.000" – 0.390" X 2.812"

Termination:

Axial Leads.

Life Validation Test:

Refer to MIL-PRF-39018/2D for test requirements.

Shelf Test:

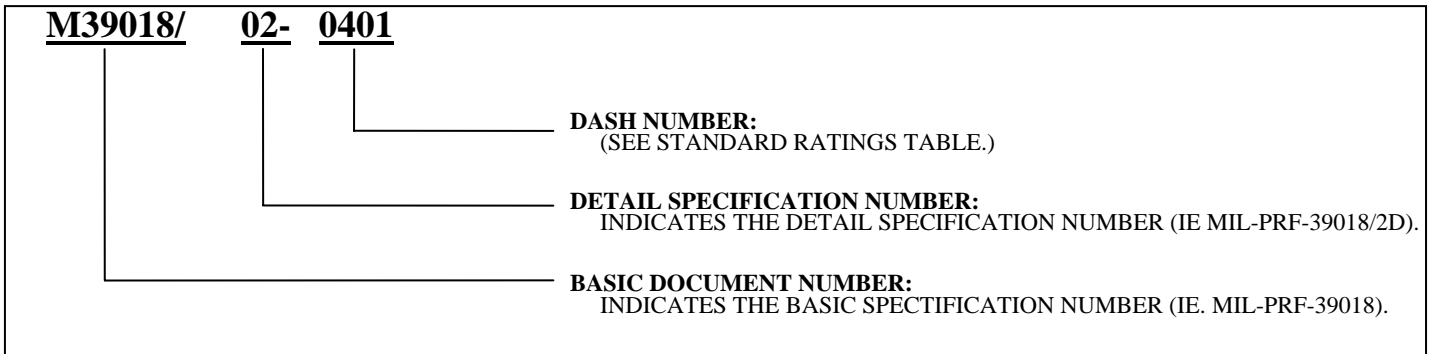
Refer to MIL-PRF-39108/2D for test requirements.

Other Test Parameters:

Refer to MIL-PRF-39108/2D for test requirements.



PART NUMBER BREAK-DOWN:



Axial-Leaded Capacitor Dimensions

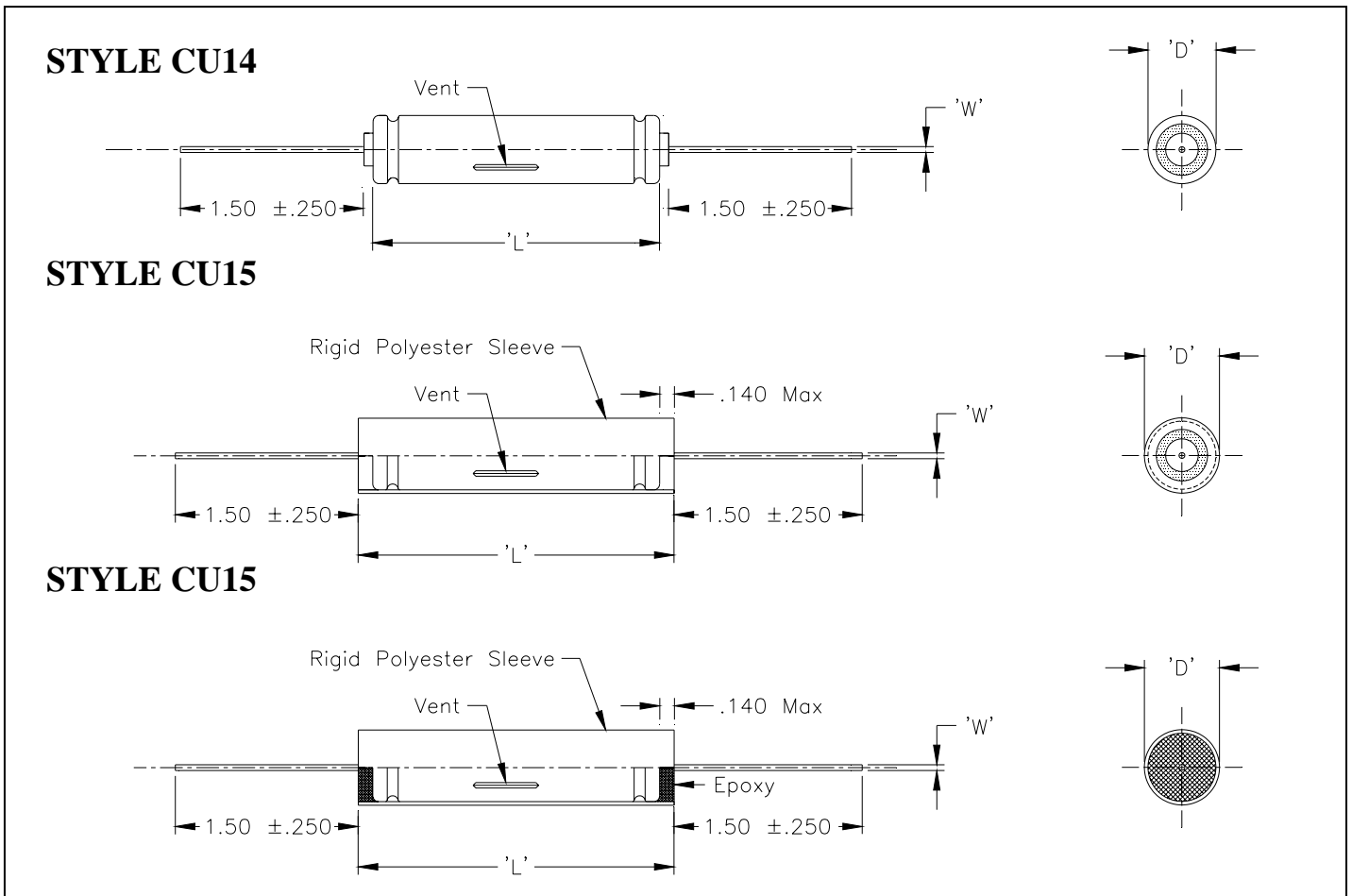


Table 1. Case Dimensions mm(in.)

CASE CODE	CU14		CU15 (w/ sleeve)		CU15 (w/epoxy end-seal)		WIRE GAUGE 'W'
	'D' ±0.38(±0.015)	'L' ±0.79(±0.031)	'D' MAX.	'L' MAX.	'D' MAX.	'L' MAX.	
A0	7.14 (0.281)	23.83 (0.938)	7.72 (0.304)	25.40 (1.000)	7.72 (0.304)	28.17 (1.109)	No. 20 AWG (0.032")
A7	9.53 (0.375)	36.53 (1.438)	10.11 (0.398)	38.10 (1.500)	10.11 (0.398)	40.87 (1.609)	No. 20 AWG (0.032")
A8	9.53 (0.375)	53.98 (2.125)	10.11 (0.398)	55.55 (2.187)	10.11 (0.398)	58.32 (2.296)	No. 20 AWG (0.032")
A9	9.53 (0.375)	69.85 (2.750)	10.11 (0.398)	71.42 (2.812)	10.11 (0.398)	74.19 (2.921)	No. 20 AWG (0.032")

STANDARD RATINGS FOR TYPE M39018/02

Rated Cap. (μ F)	Case Size	Max. ESR +25°C	Max. ESR +85°C & +125°C	Max. Imped. -55°C	Dash Number					
		120Hz (Ω)	120Hz (Ω)	120Hz (Ω)	Capacitance Tolerance (%)					
					CU14			CU15		
			-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75		
7 VOLTS DC WORKING & 10 VOLTS DC SURGE @ 85°C; 5 VOLTS DC WORKING & 7 VOLTS DC SURGE @ 125°C										
47	A0	5.64	7.05	64	0401	---	0501	0601	---	0701
220	A7	1.21	1.51	14	0402	---	0502	0602	---	0702
470	A8	0.56	0.71	6.4	0403	---	0503	0603	---	0703
680	A9	0.39	0.49	4.4	0404	---	0504	0604	---	0704
10 VOLTS DC WORKING & 15 VOLTS DC SURGE @ 85°C; 7 VOLTS DC WORKING & 10 VOLTS DC SURGE @ 125°C										
39	A0	6.80	8.50	77	0405	---	0505	0605	---	0705
180	A7	1.47	1.84	17	0406	---	0506	0606	---	0706
330	A8	0.80	1.00	9.1	0407	---	0507	0607	---	0707
470	A9	0.56	0.71	6.4	0408	---	0508	0608	---	0708
15 VOLTS DC WORKING & 20 VOLTS DC SURGE @ 85°C; 10 VOLTS DC WORKING & 15 VOLTS DC SURGE @ 125°C										
33	A0	8.04	10.05	91	0409	---	0509	0609	---	0709
120	A7	2.21	2.76	25	0410	---	0510	0610	---	0710
150	A7	1.77	2.21	20	0411	---	0511	0611	---	0711
270	A8	0.98	1.23	11	0412	---	0512	0612	---	0712
390	A9	0.68	0.85	7.7	0413	---	0513	0613	---	0713
30 VOLTS DC WORKING & 40 VOLTS DC SURGE @ 85°C; 20 VOLTS DC WORKING & 30 VOLTS DC SURGE @ 125°C										
15	A0	17.68	22.10	130	0414	---	0514	0614	---	0714
56	A7	4.74	5.92	36	0415	---	0515	0615	---	0715
68	A7	3.90	4.88	30	0416	---	0516	0616	---	0716
120	A8	2.21	2.76	17	0417	---	0517	0617	---	0717
150	A8	1.77	2.21	13	0418	---	0518	0618	---	0718
180	A9	1.47	1.84	11	0419	---	0519	0619	---	0719
50 VOLTS DC WORKING & 60 VOLTS DC SURGE @ 85°C; 40 VOLTS DC WORKING & 50 VOLTS DC SURGE @ 125°C										
6.8	A0	19.50	39.01	300	0420	---	0520	0620	---	0720
27	A7	4.91	9.82	74	0421	---	0521	0621	---	0721
56	A8	2.37	4.74	36	0422	---	0522	0622	---	0722
82	A9	1.62	3.23	23	0423	---	0523	0623	---	0723
75 VOLTS DC WORKING & 90 VOLTS DC SURGE @ 85°C; 60 VOLTS DC WORKING & 75 VOLTS DC SURGE @ 125°C										
3.9	A0	34.01	68.01	510	0424	---	0524	0624	---	0724
15	A7	8.84	17.68	130	0425	---	0525	0625	---	0725
18	A7	7.37	14.74	110	0426	---	0526	0626	---	0726
39	A8	3.40	6.80	51	0427	---	0527	0627	---	0727
56	A9	2.37	4.74	36	0428	---	0528	0628	---	0728
100 VOLTS DC WORKING & 125 VOLTS DC SURGE @ 85°C; 75 VOLTS DC WORKING & 100 VOLTS DC SURGE @ 125°C										
2.2	A0	60.29	120.57	910	0429	0529	---	0629	0729	---
12	A7	11.05	22.10	170	0430	0530	---	0630	0730	---
22	A8	6.03	12.06	91	0431	0531	---	0631	0731	---
33	A9	4.02	8.04	61	0432	0532	---	0632	0732	---

STANDARD RATINGS FOR TYPE M39018/02

Rated Cap. (μ F)	Case Size	Max. ESR +25°C	Max. ESR +85°C & +125°C	Max. Imped. -55°C	Dash Number					
		120Hz (Ω)	120Hz (Ω)	120Hz (Ω)	Capacitance Tolerance (%)					
					CU14			CU15		
					-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75
150 VOLTS DC WORKING & 175 VOLTS DC SURGE @ 85°C; 100 VOLTS DC WORKING & 125 VOLTS DC SURGE @ 125°C										
1.8	A0	73.68	147.37	1100	0433	0533	---	0633	0733	---
5.6	A7	23.68	47.37	360	0434	0534	---	0634	0734	---
8.2	A7	16.17	32.35	230	0435	0535	---	0635	0735	---
12	A8	11.05	22.10	170	0436	0536	---	0636	0736	---
15	A8	8.84	17.68	130	0437	0537	---	0637	0737	---
22	A9	6.03	12.06	91	0438	0538	---	0638	0738	---
200 VOLTS DC WORKING & 225 VOLTS DC SURGE @ 85°C; 150 VOLTS DC WORKING & 175 VOLTS DC SURGE @ 125°C										
1.0	A0	132.63	265.26	2000	0439	0539	---	0639	0739	---
4.7	A7	28.22	56.44	400	0440	0540	---	0640	0740	---
10	A8	13.26	26.53	200	0441	0541	---	0641	0741	---
15	A9	8.84	17.68	130	0442	0542	---	0642	0742	---
250 VOLTS DC WORKING & 275 VOLTS DC SURGE @ 85°C; 200 VOLTS DC WORKING & 225 VOLTS DC SURGE @ 125°C										
0.68	A0	290.00	390.09	3000	0443	0543	---	0643	0743	---
3.3	A7	40.19	80.38	610	0444	0544	---	0644	0744	---
6.8	A8	19.50	39.01	300	0445	0545	---	0645	0745	---
10	A9	13.26	26.53	200	0446	0546	---	0646	0746	---

NOTE: Additional Electrical Parameters can be found in MIL-PRF-39018/2D.