

+125°C Miniature Axial, Aluminum Capacitors

M39018/01

- Styles CU12, CU13, CUR13

General Specifications-

Operating Temperature:

-55 to +125°C

Voltage Range:

7.0 – 300 VDC

Capacitance Range:

1.5μF to 1,000μF

Capacitance Tolerances:

-10%/+30%

-10%/+50%

-10%/+75%

Case Size Range:

0.281" X 0.937" – 0.375" X 2.687"

Termination:

Axial Leads.

Life Validation Test:

Refer to MIL-PRF-39018/1F for test requirements.

Shelf Test:

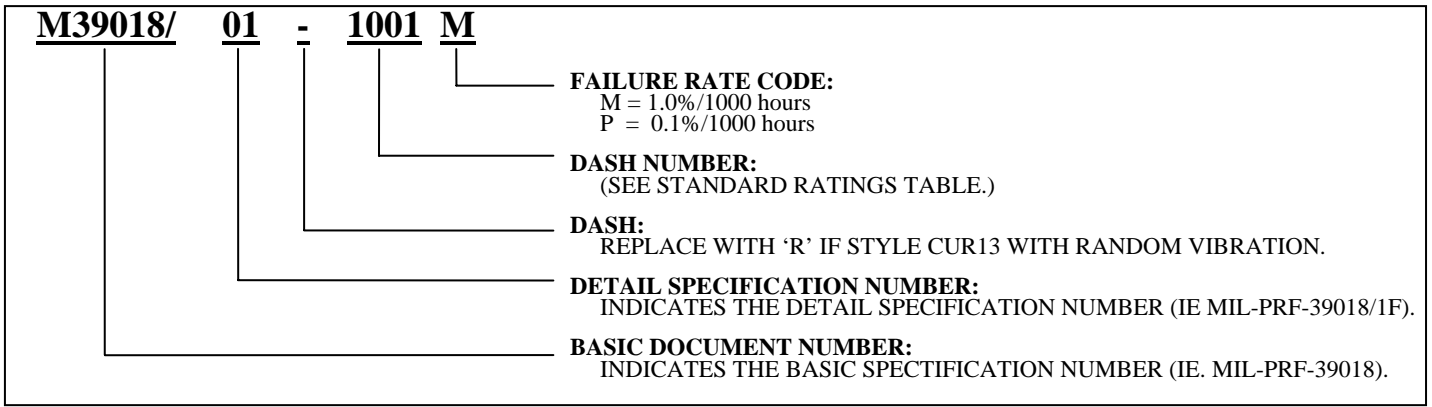
Refer to MIL-PRF-39018/1F for test requirements.

Other Test Parameters:

Refer to MIL-PRF-39018/1F for test requirements.



PART NUMBER BREAK-DOWN:



Axial-Leaded Capacitor Dimensions

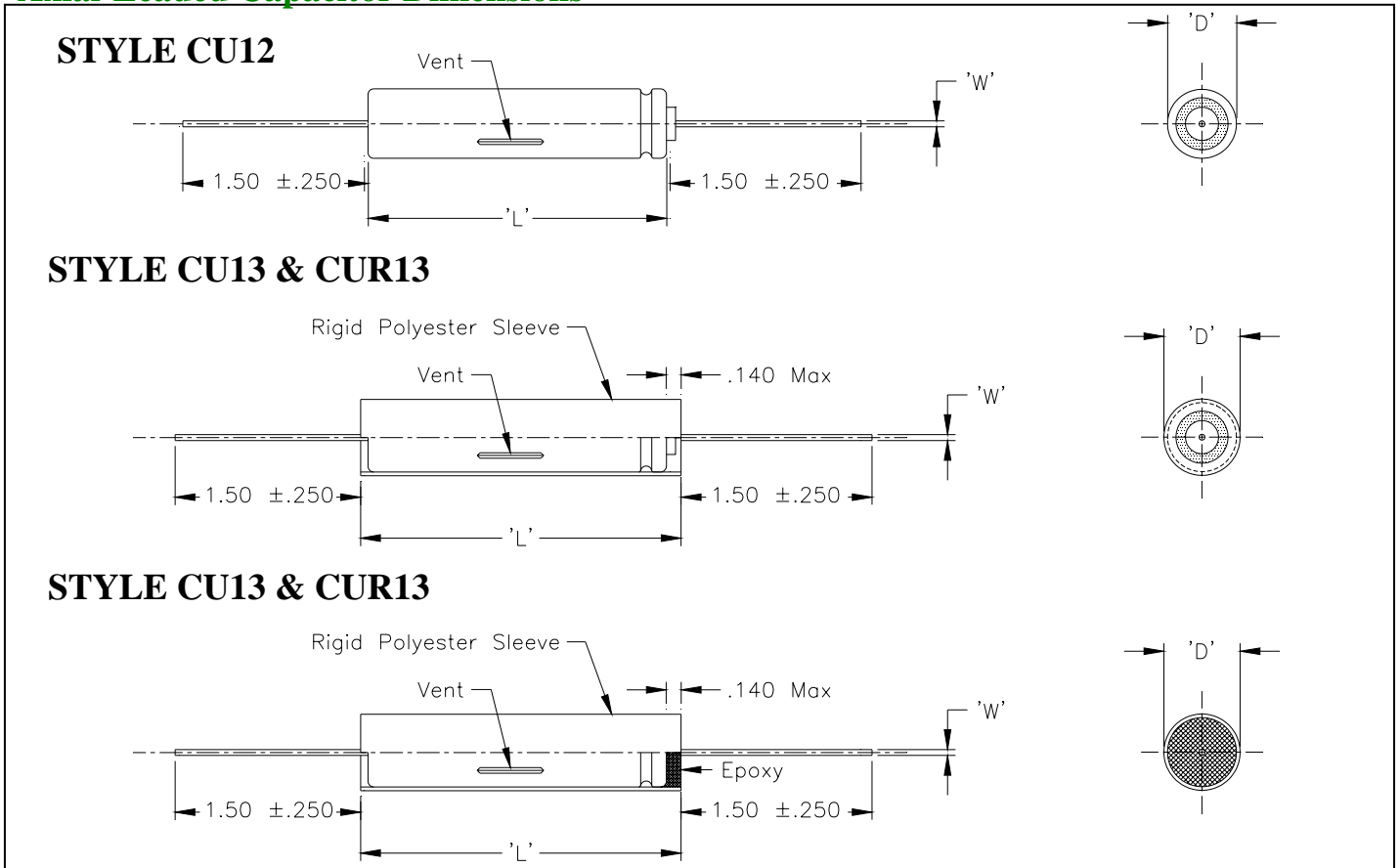


Table 1. Case Dimensions mm (in.)

CASE CODE	CU12		CU13 & CUR13 (Sleeve Only)		CU13 & CUR13 (Epoxy & Sleeve)		WIRE GAUGE 'W'
	'D' ±0.4 (±0.015)	'L' ±0.79 (±0.031)	'D' MAX.	'L' MAX.	'D' MAX.	'L' MAX.	
A0	7.14 (0.281)	23.81 (0.937)	7.72 (0.304)	25.40 (1.000)	7.72 (0.304)	28.98 (1.141)	No. 20 AWG (0.032")
A1	9.53 (0.375)	23.81 (0.937)	10.11 (0.398)	25.40 (1.000)	10.11 (0.398)	28.98 (1.141)	No. 20 AWG (0.032")
A2	9.53 (0.375)	28.58 (1.125)	10.11 (0.398)	30.16 (1.187)	10.11 (0.398)	33.73 (1.328)	No. 20 AWG (0.032")
A3	9.53 (0.375)	34.93 (1.375)	10.11 (0.398)	36.51 (1.437)	10.11 (0.398)	40.08 (1.578)	No. 20 AWG (0.032")
A4	9.53 (0.375)	41.28 (1.625)	10.11 (0.398)	42.86 (1.687)	10.11 (0.398)	46.43 (1.828)	No. 20 AWG (0.032")
A5	9.53 (0.375)	55.56 (2.187)	10.11 (0.398)	57.12 (2.249)	10.11 (0.398)	60.73 (2.391)	No. 20 AWG (0.032")
A6	9.53 (0.375)	68.26 (2.687)	10.11 (0.398)	69.82 (2.749)	10.11 (0.398)	73.43 (2.891)	No. 20 AWG (0.032")

STANDARD RATINGS FOR TYPE M39018/01

Rated Cap. (μ F)	Case Size	Max. ESR +25°C 120Hz (Ω)	Max. Ripple Current +85°C 120Hz (Arms)	Dash Number								
				Capacitance Tolerance (%)								
				CU12			CU13			CUR13		
				-10/+30	-10/+50	-10/+75	-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												
220	A1	1.21	0.290	0401	---	0501	0601	---	0701	1001-	---	1101-
270	A2	0.98	0.360	0402	---	0502	0602	---	0702	1002-	---	1102-
390	A3	0.68	0.520	0403	---	0503	0603	---	0703	1003-	---	1103-
560	A4	0.47	0.750	0404	---	0504	0604	---	0704	1004-	---	1104-
820	A5	0.32	1.100	0405	---	0505	0605	---	0705	1005-	---	1105-
1,000	A6	0.27	1.340	0406	---	0506	0606	---	0706	1006-	---	1106-
10 VOLTS DC WORKING & 15 VOLTS DC SURGE @ 85°C; 7 VOLTS DC WORKING & 10 VOLTS DC SURGE @ 125°C												
100	A0	2.65	0.285	0407	---	0507	0607	---	0707	1007-	---	1107-
180	A1	1.47	0.438	0408	---	0508	0608	---	0708	1008-	---	1108-
220	A2	1.21	0.527	0409	---	0509	0609	---	0709	1009-	---	1109-
330	A3	0.80	0.696	0410	---	0510	0610	---	0710	1010-	---	1110-
470	A4	0.56	0.892	0411	---	0511	0611	---	0711	1011-	---	1111-
680	A5	0.39	1.210	0412	---	0512	0612	---	0712	1012-	---	1112-
820	A6	0.32	1.490	0413	---	0513	0613	---	0713	1013-	---	1113-
15 VOLTS DC WORKING & 20 VOLTS DC SURGE @ 85°C; 10 VOLTS DC WORKING & 15 VOLTS DC SURGE @ 125°C												
68	A0	3.90	0.181	0414	---	0514	0614	---	0714	1014-	---	1114-
82	A0	3.23	0.219	0415	---	0515	0615	---	0715	1015-	---	1115-
150	A1	1.77	0.400	0416	---	0516	0616	---	0716	1016-	---	1116-
180	A2	1.47	0.475	0417	---	0517	0617	---	0717	1017-	---	1117-
270	A3	0.98	0.628	0418	---	0518	0618	---	0718	1018-	---	1118-
390	A4	0.68	0.810	0419	---	0519	0619	---	0719	1019-	---	1119-
560	A5	0.47	1.100	0420	---	0520	0620	---	0720	1020-	---	1120-
680	A6	0.39	1.320	0421	---	0521	0621	---	0721	1021-	---	1121-
30 VOLTS DC WORKING & 40 VOLTS DC SURGE @ 85°C; 20 VOLTS DC WORKING & 30 VOLTS DC SURGE @ 125°C												
33	A0	8.04	0.164	0422	---	0522	0622	---	0722	1022-	---	1122-
47	A0	5.64	0.196	0423	---	0523	0623	---	0723	1023-	---	1123-
82	A1	3.23	0.297	0424	---	0524	0624	---	0724	1024-	---	1124-
100	A2	2.65	0.353	0425	---	0525	0625	---	0725	1025-	---	1125-
120	A3	2.21	0.419	0426	---	0526	0626	---	0726	1026-	---	1126-
150	A3	1.77	0.470	0427	---	0527	0627	---	0727	1027-	---	1127-
220	A4	1.20	0.607	0428	---	0528	0628	---	0728	1028-	---	1128-
330	A5	0.80	0.848	0429	---	0529	0629	---	0729	1029-	---	1129-
390	A6	0.68	1.000	0430	---	0530	0630	---	0730	1030-	---	1130-
50 VOLTS DC WORKING & 60 VOLTS DC SURGE @ 85°C; 40 VOLTS DC WORKING & 50 VOLTS DC SURGE @ 125°C												
22	A0	9.04	0.134	0431	---	0531	0631	---	0731	1031-	---	1131-
33	A1	5.03	0.188	0432	---	0532	0632	---	0732	1032-	---	1132-
47	A2	4.23	0.243	0433	---	0533	0633	---	0733	1033-	---	1133-
56	A3	3.55	0.286	0434	---	0534	0634	---	0734	1034-	---	1134-
68	A3	2.92	0.315	0435	---	0535	0635	---	0735	1035-	---	1135-
100	A4	1.99	0.410	0436	---	0536	0636	---	0736	1036-	---	1136-
150	A5	1.33	0.571	0437	---	0537	0637	---	0737	1037-	---	1137-
180	A6	1.11	0.680	0438	---	0538	0638	---	0738	1038-	---	1138-

STANDARD RATINGS FOR TYPE M39018/01

Rated Cap. (μ F)	Case Size	Max. ESR	Current	Dash Number								
		+25°C	+85°C	Capacitance Tolerance (%)								
		120Hz (Ω)	120Hz (Arms)	CU12			CU13			CUR13		
				-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75
75 VOLTS DC WORKING & 90 VOLTS DC SURGE @ 85°C; 60 VOLTS DC WORKING & 75 VOLTS DC SURGE @ 125°C												
12	A0	16.58	0.096	0439	---	0539	0639	---	0739	1039-	---	1139-
22	A1	9.04	0.153	0440	---	0540	0640	---	0740	1040-	---	1140-
33	A2	6.03	0.204	0441	---	0541	0641	---	0741	1041-	---	1141-
47	A3	4.27	0.262	0442	---	0542	0642	---	0742	1042-	---	1142-
68	A4	2.92	0.337	0443	---	0543	0643	---	0743	1043-	---	1143-
100	A5	1.99	0.506	0444	---	0544	0644	---	0744	1044-	---	1144-
120	A6	1.65	0.555	0445	---	0545	0645	---	0745	1045-	---	1145-
100 VOLTS DC WORKING & 125 VOLTS DC SURGE @ 85°C; 75 VOLTS DC WORKING & 100 VOLTS DC SURGE @ 125°C												
8.2	A0	24.26	0.082	0446	---	0546	0646	---	0746	1046-	---	1146-
12	A1	16.54	0.109	0447	---	0547	0647	---	0747	1047-	---	1147-
15	A2	13.26	0.137	0448	---	0548	0648	---	0748	1048-	---	1148-
22	A3	9.04	0.179	0449	---	0549	0649	---	0749	1049-	---	1149-
33	A4	6.03	0.235	0450	---	0550	0650	---	0750	1050-	---	1150-
47	A5	4.23	0.319	0451	---	0551	0651	---	0751	1051-	---	1151-
68	A6	2.92	0.417	0452	---	0552	0652	---	0752	1052-	---	1152-
150 VOLTS DC WORKING & 175 VOLTS DC SURGE @ 85°C; 100 VOLTS DC WORKING & 125 VOLTS DC SURGE @ 125°C												
4.7	A0	28.22	0.069	0453	0553	---	0653	0753	---	1053-	1153-	---
5.6	A0	23.68	0.075	0454	0554	---	0654	0754	---	1054-	1154-	---
8.2	A1	10.17	0.105	0455	0555	---	0655	0755	---	1055-	1155-	---
12	A2	11.05	0.137	0456	0556	---	0656	0756	---	1056-	1156-	---
18	A3	7.37	0.182	0457	0557	---	0657	0757	---	1057-	1157-	---
22	A4	6.03	0.214	0458	0558	---	0658	0758	---	1058-	1158-	---
33	A5	4.02	0.300	0459	0559	---	0659	0759	---	1059-	1159-	---
56	A6	2.37	0.423	0460	0560	---	0660	0760	---	1060-	1160-	---
200 VOLTS DC WORKING & 225 VOLTS DC SURGE @ 85°C; 150 VOLTS DC WORKING & 175 VOLTS DC SURGE @ 125°C												
3.3	A0	40.30	0.063	0490	0590	---	0690	0790	---	1061-	1161-	---
3.9	A0	34.01	0.068	0461	0561	---	0661	0761	---	1089-	1189-	---
5.6	A1	23.68	0.086	0462	0562	---	0662	0762	---	1062-	1162-	---
8.2	A2	16.17	0.113	0463	0563	---	0663	0763	---	1063-	1163-	---
12	A3	11.05	0.148	0464	0564	---	0664	0764	---	1064-	1164-	---
15	A4	8.84	0.177	0465	0565	---	0665	0765	---	1065-	1165-	---
27	A5	4.91	0.271	0466	0566	---	0666	0766	---	1066-	1166-	---
39	A6	3.40	0.353	0467	0567	---	0667	0767	---	1067-	1167-	---
250 VOLTS DC WORKING & 275 VOLTS DC SURGE @ 85°C; 200 VOLTS DC WORKING & 225 VOLTS DC SURGE @ 125°C												
2.2	A0	60.45	0.058	0491	0591	---	0691	0791	---	1068-	1168-	---
3.3	A0	40.19	0.07	0468	0568	---	0668	0768	---	1090-	1190-	---
5.6	A1	23.68	0.086	0469	0569	---	0669	0769	---	1069-	1169-	---
6.8	A2	19.50	0.103	0470	0570	---	0670	0770	---	1070-	1170-	---
10	A3	13.26	0.125	0471	0571	---	0671	0771	---	1071-	1171-	---
12	A4	11.05	0.159	0472	0572	---	0672	0772	---	1072-	1172-	---
22	A5	6.03	0.245	0473	0573	---	0673	0773	---	1073-	1173-	---
27	A6	4.91	0.294	0474	0574	---	0674	0774	---	1074-	1174-	---

STANDARD RATINGS FOR TYPE M39018/01

Rated Cap. (μ F)	Case Size	Max. ESR +25°C 120Hz (Ω)	Max. Ripple Current +85°C 120Hz (Arms)	Dash Number								
				Capacitance Tolerance (%)								
				CU12			CU13			CUR13		
				-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75	-10/+30	-10/+50	-10/+75
300 VOLTS DC WORKING & 325 VOLTS DC SURGE @ 85°C; 225 VOLTS DC WORKING & 250 VOLTS DC SURGE @ 125°C												
1.5	A0	132.66	0.042	0492	0592	---	0692	0792	---	---	---	---
2.2	A0	90.43	0.051	0475	0575	---	0675	0775	---	---	---	---
3.9	A1	51.01	0.071	0493	0593	---	0693	0793	---	---	---	---
4.7	A1	42.33	0.078	0476	0576	---	0676	0776	---	---	---	---
5.6	A2	35.53	0.084	0489	0589	---	0689	0789	---	---	---	---
8.2	A3	24.26	0.110	0478	0578	---	0678	0778	---	---	---	---
10	A4	19.89	0.130	0479	0579	---	0679	0779	---	---	---	---
16	A5	12.43	0.185	0480	0580	---	0680	0780	---	---	---	---
18	A6	11.05	0.217	0481	0581	---	0681	0781	---	---	---	---

NOTE: Additional Electrical Parameters can be found in MIL-PRF-39018/1F.