

High Temperature, Rugged, Long Life Snapmounts

The higher temperature complement to Type 380, Type 381 gives exceptionally long life with ripple currents and temperatures that would kill ordinary snapmounts. Great for tough power supply applications.

Capacitance: 47 to 120,000µF

Voltage: 6.3 to 400Vdc

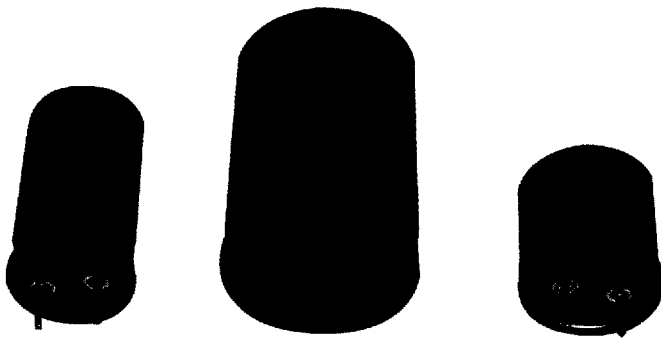
Operating Temperature: -40°C to +105°C

Life Test: 4,000 hours @ +105°C

Ripple Test: 2,000 hours at full load @ +105°C

Shelf Test: 500 hours @ +105°C

DCL: ≤ 3√CV µA



60

Cap. µF	Catalog Number	ESR Max Ω		Ripple A		Nominal Size (mm) D x L
		Max	±30% 20kHz	120Hz	20kHz	

Cap. µF	Catalog Number	ESR Max Ω		Ripple A		Nominal Size (mm) D x L
		Max	±30% 20kHz	120Hz	20kHz	

6.3Vdc - 10 Vdc Surge

8,200	381822M6R3H012	0.101	0.047	3.2	3.6	22 x 25
12,000	381123M6R3H022	0.074	0.035	4.0	4.6	22 x 30
12,000	381123M6R3J012	0.083	0.041	3.7	4.1	25 x 25
15,000	381153M6R3H032	0.059	0.028	4.8	5.4	22 x 35
18,000	381183M6R3H042	0.049	0.023	5.6	6.3	22 x 40
18,000	381183M6R3K012	0.049	0.023	6.2	7.0	30 x 25
18,000	381183M6R3J022	0.061	0.030	4.7	5.2	25 x 30
22,000	381223M6R3J032	0.049	0.024	5.5	6.1	25 x 35
27,000	381273M6R3K022	0.036	0.017	7.7	8.7	30 x 30
27,000	381273M6R3J042	0.040	0.020	6.5	7.1	25 x 40
33,000	381333M6R3K032	0.029	0.014	9.1	10.2	30 x 35
33,000	381333M6R3A022	0.032	0.015	9.0	9.9	35 x 30
39,000	381393M6R3K042	0.024	0.011	10.5	11.7	30 x 40
39,000	381393M6R3A032	0.025	0.012	10.1	11.1	35 x 35
39,000	381393M6R3J052	0.029	0.015	8.2	8.9	25 x 50
47,000	381473M6R3A042	0.021	0.010	11.1	12.2	35 x 40
56,000	381563M6R3K052	0.017	0.008	12.3	13.6	30 x 50
68,000	381683M6R3A052	0.015	0.007	13.0	14.0	35 x 50
82,000	381823M6R3A062	0.013	0.006	14.6	15.6	35 x 60
100,000	381104M6R3A072	0.011	0.005	15.9	16.9	35 x 70
120,000	381124M6R3A082	0.009	0.005	16.9	17.7	35 x 80

7.5Vdc - 12 Vdc Surge

8,200	381822M7R5H012	0.110	0.047	3.1	3.6	22 x 25
12,000	381123M7R5H022	0.081	0.035	3.9	4.6	22 x 30
12,000	381123M7R5J012	0.090	0.041	3.6	4.1	25 x 25
15,000	381153M7R5H032	0.064	0.028	4.6	5.4	22 x 35
15,000	381153M7R5J022	0.066	0.030	4.6	5.2	25 x 30
18,000	381183M7R5J032	0.053	0.024	5.4	6.1	25 x 35
18,000	381183M7R5H042	0.053	0.023	5.4	6.3	22 x 40
18,000	381183M7R5K012	0.053	0.023	6.0	7.0	30 x 25
22,000	381223M7R5K022	0.039	0.017	7.5	8.7	30 x 30
22,000	381223M7R5J042	0.043	0.020	6.3	7.1	25 x 40
27,000	381273M7R5K032	0.031	0.014	8.8	10.2	30 x 35
27,000	381273M7R5A022	0.034	0.015	8.8	9.9	35 x 30
33,000	381333M7R5J052	0.032	0.015	8.0	8.9	25 x 50
39,000	381393M7R5K042	0.026	0.011	10.2	11.7	30 x 40
39,000	381393M7R5A032	0.027	0.012	9.9	11.1	35 x 35
47,000	381473M7R5K052	0.019	0.008	12.0	13.6	30 x 50
47,000	381473M7R5A042	0.022	0.010	10.9	12.2	35 x 40
68,000	381683M7R5A052	0.016	0.008	12.7	14.0	35 x 50
82,000	381823M7R5A062	0.013	0.000	14.3	15.6	35 x 60
100,000	381104M7R5A072	0.011	0.005	15.6	16.8	35 x 70
120,000	381124M7R5A082	0.010	0.005	16.6	17.7	35 x 80

10Vdc - 15 Vdc Surge

6,800	381682M010H012	0.121	0.047	3.0	3.6	22 x 25
10,000	381103M010H022	0.089	0.035	3.7	4.6	22 x 30
10,000	381103M010J012	0.098	0.041	3.5	4.1	25 x 25
12,000	381123M010H032	0.070	0.028	4.4	5.4	22 x 35

10Vdc - 15 Vdc Surge (continued)

15,000	381153M010H042	0.058	0.023	5.2	6.3	22 x 40
15,000	381153M010K012	0.059	0.023	5.7	7.0	30 x 25
15,000	381153M010J022	0.072	0.030	4.4	5.1	25 x 30
18,000	381183M010J032	0.057	0.024	5.3	6.1	25 x 35
22,000	381223M010K022	0.043	0.017	7.2	8.7	30 x 30
22,000	381223M010J042	0.047	0.020	6.1	7.1	25 x 40
27,000	381273M010K032	0.034	0.014	8.5	10.2	30 x 35
27,000	381273M010A022	0.037	0.015	8.5	9.9	35 x 30
33,000	381333M010K042	0.028	0.011	9.8	11.7	30 x 40
33,000	381333M010A032	0.030	0.012	9.6	11.1	35 x 35
33,000	381333M010J052	0.034	0.015	7.8	8.9	25 x 50
39,000	381393M010A042	0.025	0.010	10.6	12.2	35 x 40
47,000	381473M010K052	0.021	0.008	11.6	13.5	30 x 50
56,000	381563M010A052	0.018	0.008	12.4	14.0	35 x 50
68,000	381683M010A062	0.015	0.006	14.0	15.6	35 x 60
82,000	381823M010A072	0.012	0.005	15.3	16.8	35 x 70
100,000	381104M010A082	0.011	0.005	16.3	17.7	35 x 80

16Vdc - 24 Vdc Surge

4,700	381472M016H012	0.126	0.047	2.9	3.6	22 x 25
6,800	381682M016H022	0.092	0.035	3.7	4.6	22 x 30
6,800	381682M016J012	0.102	0.041	3.5	4.1	25 x 25
8,200	381822M016H032	0.073	0.028	4.4	5.4	22 x 35
10,000	381103M016H042	0.061	0.023	5.1	6.3	22 x 40
10,000	381103M016K012	0.061	0.023	5.7	7.0	30 x 25
10,000	381103M016J022	0.074	0.030	4.4	5.1	25 x 30
12,000	381123M016J032	0.059	0.024	5.2	6.1	25 x 35
15,000	381153M016K022	0.045	0.017	7.1	8.7	30 x 30
15,000	381153M016J042	0.049	0.020	6.1	7.7	25 x 40
18,000	381183M016K032	0.036	0.014	8.3	10.1	30 x 35
18,000	381183M016A022	0.039	0.015	8.4	9.9	35 x 30
22,000	381223M016K042	0.029	0.011	9.7	11.7	30 x 40
22,000	381223M016A032	0.031	0.012	9.5	11.1	35 x 35
22,000	381223M016J052	0.036	0.015	7.7	8.9	25 x 50
27,000	381273M016A042	0.025	0.010	10.4	12.2	35 x 40
33,000	381333M016K052	0.021	0.008	11.5	13.5	30 x 50
39,000	381393M016A052	0.018	0.008	12.2	14.0	35 x 50
47,000	381473M016A062	0.015	0.006	13.9	15.6	35 x 60
56,000	381563M016A072	0.013	0.005	15.2	16.8	35 x 70
68,000	381683M016A082	0.011	0.005	16.2	17.7	35 x 80

20Vdc - 30 Vdc Surge

3,900	381392M020H012	0.132	0.048	2.9	3.6	22 x 25
5,600	381562M020H022	0.096	0.035	3.6	4.6	22 x 30
5,600	381562M020J012	0.105	0.041	3.4	4.1	25 x 25
6,800	381682M020H032	0.076	0.028	4.3	5.4	22 x 35
6,800	381682M020J022	0.077	0.030	4.3	5.1	25 x 30
8,200	381822M020H042	0.063	0.023	5.0	6.3	22 x 40
8,200	381822M020K012	0.064	0.023	5.6	7.0	30 x 25
10,000	381103M020J032	0.061	0.024	5.1	6.1	25 x 35

62

Cap. µF	Catalog Number	ESR Max Ω		Ripple A		Nominal Size (mm) D x L
		Max 120Hz	±30% 20kHz	@85°C 120Hz	20kHz	

Cap. µF	Catalog Number	ESR Max Ω		Ripple A		Nominal Size (mm) D x L
		Max 120Hz	±30% 20kHz	@85°C 120Hz	20kHz	

100Vdc - 150 Vdc Surge

200Vdc - 275 Vdc Surge (continued)

330	381331M100H012	0.314	0.108	1.9	2.6	22 x 25
470	381471M100H022	0.229	0.079	2.4	3.2	22 x 30
470	381471M100J012	0.240	0.088	2.4	3.0	25 x 25
560	381561M100H032	0.181	0.063	2.9	3.8	22 x 35
680	381681M100H042	0.149	0.051	3.4	4.5	22 x 40
680	381681M100K012	.15	.052	3.8	4.9	30 x 25
680	381681M100J022	0.175	0.064	3.0	3.8	25 x 30
820	381821M100J032	0.139	0.051	3.6	4.5	25 x 35
1,000	381102M100K022	0.110	0.038	4.8	6.2	30 x 30
1,000	381102M100J042	0.114	0.042	4.2	5.3	25 x 40
1,200	381122M100K032	0.087	0.030	5.7	7.3	30 x 35
1,200	381122M100A022	0.092	0.033	5.8	7.3	35 x 30
1,500	381152M100K042	0.071	0.025	6.6	8.5	30 x 40
1,500	381152M100A032	0.073	0.026	6.6	8.3	35 x 35
1,500	381152M100J052	0.082	0.030	5.5	6.8	25 x 50
1,800	381182M100A042	0.060	0.022	7.3	9.2	35 x 40
2,200	381222M100K052	0.051	0.018	8.1	10.2	30 x 50
2,700	381272M100A052	0.043	0.016	8.8	10.9	35 x 50
3,300	381332M100A062	0.035	0.013	10.3	12.4	35 x 60
3,900	381392M100A072	0.029	0.011	11.5	13.8	35 x 70
4,700	381472M100A082	0.025	0.009	12.7	14.9	35 x 80

1,500	381152M200A072	0.048	0.048	7.5	10.1	35 x 70
1,800	381182M200A082	0.041	0.041	8.5	11.5	35 x 80

250Vdc - 325 Vdc Surge

150Vdc - 225 Vdc Surge

120	381121M250H012	0.669	0.211	1.0	1.5	22 x 25
150	381151M250H022	0.487	0.154	1.2	1.9	22 x 30
150	381151M250J012	0.521	0.179	1.2	1.8	25 x 25
180	381181M250H032	0.385	0.122	1.5	2.3	22 x 35
220	381221M250H042	0.316	0.100	1.7	2.7	22 x 40
220	381221M250K012	0.344	0.108	1.9	2.9	30 x 25
220	381221M250J022	0.380	0.131	1.6	2.3	25 x 30
270	381271M250K022	0.250	0.079	2.4	3.7	30 x 30
270	381271M250J032	0.300	0.104	1.9	2.7	25 x 35
330	381331M250J042	0.247	0.085	2.2	3.2	25 x 40
390	381391M250K032	0.198	0.062	2.8	4.4	30 x 35
390	381391M250A022	0.210	0.069	2.9	4.4	35 x 30
470	381471M250K042	0.163	0.051	3.3	5.2	30 x 40
470	381471M250A032	0.166	0.055	3.4	5.1	35 x 35
470	381471M250J052	0.175	0.061	2.9	4.2	25 x 50
560	381561M250A042	0.136	0.045	3.8	5.7	35 x 40
680	381681M250K052	0.116	0.037	4.1	6.4	30 x 50
820	381821M250A052	0.097	0.032	4.6	7.0	35 x 50
1,000	381102M250A062	0.078	0.026	5.5	8.3	35 x 60
1,200	381122M250A072	0.065	0.022	6.4	9.6	35 x 70
1,500	381152M250A082	0.055	0.019	7.3	10.9	35 x 80

300Vdc - 375 Vdc Surge

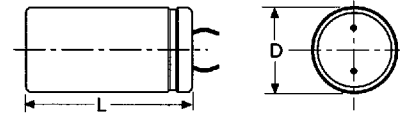
200Vdc - 275 Vdc Surge

68	381680M300H012	0.570	0.720	0.7	1.0	22 x 25
100	381100M300H022	0.140	0.527	0.9	1.3	22 x 30
100	381101M300J012	0.170	0.545	1.0	1.3	25 x 25
120	381121M300J022	0.850	0.397	1.2	1.7	25 x 30
120	381121M300H032	0.904	0.416	1.1	1.6	22 x 35
150	381151M300H042	0.741	0.341	1.3	1.8	22 x 40
150	381151M300K012	0.810	0.372	1.4	2.0	30 x 25
180	381181M300K022	0.590	0.271	1.8	2.5	30 x 30
180	381181M300J032	0.672	0.314	1.4	2.0	25 x 35
220	381221M300K032	0.466	0.214	2.1	3.0	30 x 35
220	381221M300A022	0.480	0.223	2.2	3.1	35 x 30
220	381221M300J042	0.551	0.258	1.7	2.3	25 x 40
270	381271M300A032	0.380	0.176	2.5	3.5	35 x 35
270	381271M300K042	0.382	0.176	2.5	3.5	30 x 40
270	381271M300J052	0.391	0.183	2.2	3.0	25 x 50
390	381391M300K052	0.271	0.125	3.1	4.3	30 x 50
390	381391M300A042	0.311	0.144	2.9	4.0	35 x 40
470	381471M300A052	0.221	0.103	3.5	4.9	35 x 50
680	381681M300A062	0.177	0.082	4.2	5.8	35 x 60
820	381821M300A082	0.124	0.058	5.6	7.7	35 x 80
820	381821M300A072	0.148	0.069	4.9	6.8	35 x 70

350Vdc - 450 Vdc Surge

68	381680M350H012	0.710	0.740	0.7	1.0	22 x 25
82	381820M350H022	0.250	0.540	0.9	1.3	22 x 30
82	381820M350J012	0.270	0.558	0.9	1.3	25 x 25
120	381121M350K012	0.884	0.382	1.3	1.9	30 x 25
120	381121M350J022	0.926	0.407	1.1	1.6	25 x 30
120	381121M350H032	0.986	0.427	1.0	1.5	22 x 35
150	381151M350J032	0.732	0.322	1.4	1.9	25 x 35
150	381151M350H042	0.808	0.350	1.2	1.8	22 x 40
180	381181M350J042	0.600	0.264	1.6	2.3	25 x 40
180	381181M350K022	0.644	0.278	1.7	2.4	30 x 30
220	381221M350K032	0.509	0.220	2.0	2.9	30 x 35
220	381221M350A022	0.524	0.228	2.1	3.0	35 x 30
270	381271M350A032	0.414	0.180	2.4	3.5	35 x 35
270	381271M350K042	0.417	0.180	2.3	3.4	30 x 40

Cap. μF	Catalog Number	ESR Max Ω		Ripple A		Nominal Size (mm)
		Max	±30%	@85°C	120Hz 20kHz	



350Vdc - 450 Vdc Surge (continued)

270	381271M350J052	0.425	0.187	2.1	3.0	25 x 50
330	381331M350A042	0.339	0.148	2.7	3.9	35 x 40
390	381391M350K052	0.296	0.128	2.9	4.2	30 x 50
470	381471M350A052	0.240	0.105	3.3	4.8	35 x 50
560	381561M350A062	0.193	0.085	4.0	5.7	35 x 60
680	381681M350A072	0.161	0.070	4.6	6.6	35 x 70
820	381821M350A082	0.135	0.059	5.3	7.6	35 x 80

Lead spacing is 10.0 ±0.1 mm
Leads are 14 AWG (1.82 mm)
Leads are 6.3 ±1.0 mm long

Insulated Case Dimensions

Case Code	Diam.		Length		Case Code	Diam.		Length	
	in.	mm	in.	mm		in.	mm	in.	mm
H01	0.87	22	0.98	25	K04	1.18	30	1.57	40
H02	0.87	22	1.10	30	K05	1.18	30	1.97	50
H04	0.87	22	1.57	40	A01	1.38	35	0.98	25
H05	0.87	22	1.97	50	A02	1.38	35	1.18	30
J01	0.98	25	0.98	25	A04	1.38	35	1.57	40
J02	0.98	25	1.18	30	A05	1.38	35	1.97	50
J04	0.98	25	1.57	40	A06	1.38	35	2.36	60
J05	0.98	25	1.97	50	A07	1.35	35	2.76	70
K01	1.18	30	0.98	25	A08	1.38	35	3.15	80
K02	1.18	30	1.18	30					

400Vdc - 475 Vdc Surge

47	381470M400H012	0.790	0.760	0.7	1.0	22 x 25
68	381680M400H022	0.310	0.550	0.8	1.3	22 x 30
68	381680M400J012	0.330	0.568	0.9	1.3	25 x 25
82	381820M400J022	0.968	0.414	1.1	1.6	25 x 30
82	381820M400H032	0.030	0.435	1.0	1.5	22 x 35
100	381101M400H042	0.846	0.356	1.2	1.8	22 x 40
100	381101M400K012	0.925	0.389	1.3	1.9	30 x 25
120	381121M400K022	0.674	0.283	1.6	2.4	30 x 30
120	381121M400J032	0.765	0.327	1.3	1.9	25 x 35
150	381151M400K032	0.532	0.224	1.9	2.8	30 x 35
150	381151M400A022	0.547	0.232	2.0	3.0	35 x 30
150	381151M400J042	0.627	0.268	1.6	2.3	25 x 40
180	381181M400K042	0.436	0.184	2.3	3.4	30 x 40
180	381181M400J052	0.445	0.191	2.0	2.9	25 x 50
220	381221M400A042	0.355	0.151	2.6	3.8	35 x 40
220	381221M400A032	0.433	0.184	2.3	3.4	35 x 35
270	381271M400K052	0.309	0.130	2.8	4.2	30 x 50
330	381331M400A052	0.251	0.107	3.2	4.7	35 x 50
390	381391M400A062	0.202	0.086	3.9	5.6	35 x 60
560	381561M400A082	0.142	0.060	5.1	7.5	35 x 80
560	381561M400A072	0.168	0.072	4.5	6.5	35 x 70

Ordering Information for Types 381

381 123 M 6R3 H02 2 E

Type: 381-----|
Capacitance: 100 = 10μF; 101 = 100μF-----|
 102 = 1000μF; 123 = 12,000μF
Tolerance: M = ±20%; P = -10% + 30%;-----|
 U = -10% +75%; T = -10% + 50%
Voltage: 6R3 = 6.3Vdc; 063 = 63Vdc; 100 = 100Vdc-----|
Case Code: See table-----|
Insulation: 0 = None; 1 = Polyester; 2 = PVC-----|
 8 = PVC & Standoffs; 9 = Polyester & Standoffs
Epoxy End Seal: E = epoxy; blank = no epoxy-----|

Type 381 Typical Impedance vs. Frequency

