

STANDARD/EXTENDED RATINGS: CLR69*, M39006/21-XXXX													
CAPACITANCE (μF)	CASE CODE	CAP. TOL. (± %)	PART NO. M39006/21- FAILURE RATE LEVEL (%/1000 h)				MAX. DCL (μA) at		MAX. DF at + 25 °C (%)	MAX. IMP. at - 55 °C (Ω)	MAX. CAPACITANCE CHANGE (%) at		
			L 2.0	M 1.0	P 0.1	R 0.01	+ 25 °C	+ 85 °C + 125 °C			- 55 °C	+ 85 °C	+ 125 °C
6 WVDC at + 85 °C . . . 4 WVDC at + 125 °C													
220.0	T1	20	0001	0089	0177	0265	2.0	9.0	50	36	- 64	+ 13	+ 16
220.0	T1	10	0002	0090	0178	0266	2.0	9.0	50	36	- 64	+ 13	+ 16
820.0	T2	20	0003	0091	0179	0267	3.0	14.0	155	18	- 88	+ 16	+ 20
820.0	T2	10	0004	0092	0180	0268	3.0	14.0	155	18	- 88	+ 16	+ 20
1500.0	T3	20	0005	0093	0181	0269	5.0	20.0	172	18	- 90	+ 20	+ 25
1500.0	T3	10	0006	0094	0182	0270	5.0	20.0	172	18	- 90	+ 20	+ 25
2200.0	T4	20	0007	0095	0183	0271	6.0	24.0	170	13	- 90	+ 25	+ 30
2200.0	T4	10	0008	0096	0184	0272	6.0	24.0	170	13	- 90	+ 25	+ 30
8 WVDC at + 85 °C . . . 5 WVDC at + 125 °C													
180.0	T1	20	0009	0097	0185	0273	2.0	9.0	41	45	- 60	+ 13	+ 16
180.0	T1	10	0010	0098	0186	0274	2.0	9.0	41	45	- 60	+ 13	+ 16
680.0	T2	20	0011	0099	0187	0275	3.0	14.0	130	22	- 83	+ 16	+ 20
680.0	T2	10	0012	0100	0188	0276	3.0	14.0	130	22	- 83	+ 16	+ 20
1500.0	T3	20	0013	0101	0189	0277	5.0	20.0	170	18	- 90	+ 20	+ 25
1500.0	T3	10	0014	0102	0190	0278	5.0	20.0	170	18	- 90	+ 20	+ 25
1800.0	T4	20	0015	0103	0191	0279	7.0	25.0	138	14	- 90	+ 25	+ 30
1800.0	T4	10	0016	0104	0192	0280	7.0	25.0	138	14	- 90	+ 25	+ 30
10 WVDC at + 85 °C . . . 7 WVDC at + 125 °C													
150.0	T1	20	0017	0105	0193	0281	2.0	9.0	34	54	- 55	+ 13	+ 16
150.0	T1	10	0018	0106	0194	0282	2.0	9.0	34	54	- 55	+ 13	+ 16
560.0	T2	20	0019	0107	0195	0283	3.0	16.0	106	27	- 77	+ 16	+ 20
560.0	T2	10	0020	0108	0196	0284	3.0	16.0	106	27	- 77	+ 16	+ 20
1200.0	T3	20	0021	0109	0197	0285	5.0	20.0	137	18	- 88	+ 20	+ 25
1200.0	T3	10	0022	0110	0198	0286	5.0	20.0	137	18	- 88	+ 20	+ 25
1500.0	T4	20	0023	0111	0199	0287	7.0	25.0	114	15	- 88	+ 25	+ 30
1500.0	T4	10	0024	0112	0200	0288	7.0	25.0	114	15	- 88	+ 25	+ 30
15 WVDC at + 85 °C . . . 10 WVDC at + 125 °C													
100.0	T1	20	0025	0113	0201	0289	2.0	9.0	30	72	- 44	+ 13	+ 16
100.0	T1	10	0026	0114	0202	0290	2.0	9.0	30	72	- 44	+ 13	+ 16
390.0	T2	20	0027	0115	0203	0291	3.0	16.0	74	31	- 66	+ 16	+ 20
390.0	T2	10	0028	0116	0204	0292	3.0	16.0	74	31	- 66	+ 16	+ 20
820.0	T3	20	0029	0117	0205	0293	6.0	24.0	111	22	- 77	+ 20	+ 25
820.0	T3	10	0030	0118	0206	0294	6.0	24.0	111	22	- 77	+ 20	+ 25
1000.0	T4	20	0031	0119	0207	0295	8.0	32.0	92	17	- 77	+ 25	+ 30
1000.0	T4	10	0032	0120	0208	0296	8.0	32.0	92	17	- 77	+ 25	+ 30
25 WVDC at + 85 °C . . . 15 WVDC at + 125 °C													
68.0	T1	20	0033	0121	0209	0297	2.0	9.0	22	90	- 40	+ 12	+ 15
68.0	T1	10	0034	0122	0210	0298	2.0	9.0	22	90	- 40	+ 12	+ 15
270.0	T2	20	0035	0123	0211	0299	3.0	16.0	55	33	- 62	+ 13	+ 16
270.0	T2	10	0036	0124	0212	0300	3.0	16.0	55	33	- 62	+ 13	+ 16
560.0	T3	20	0037	0125	0213	0301	7.0	28.0	76	24	- 72	+ 20	+ 25
560.0	T3	10	0038	0126	0214	0302	7.0	28.0	76	24	- 72	+ 20	+ 25
680.0	T4	20	0039	0127	0215	0303	8.0	32.0	63	19	- 72	+ 25	+ 30
680.0	T4	10	0040	0128	0216	0304	8.0	32.0	63	19	- 72	+ 25	+ 30
30 WVDC at + 85 °C . . . 20 WVDC at + 125 °C													
56.0	T1	20	0041	0129	0217	0305	2.0	9.0	22	100	- 38	+ 12	+ 15
56.0	T1	10	0042	0130	0218	0306	2.0	9.0	22	100	- 38	+ 12	+ 15
220.0	T2	20	0043	0131	0219	0307	3.0	16.0	42	36	- 60	+ 13	+ 16
220.0	T2	10	0044	0132	0220	0308	3.0	16.0	42	36	- 60	+ 13	+ 16
470.0	T3	20	0045	0133	0221	0309	8.0	32.0	64	25	- 65	+ 20	+ 25
470.0	T3	10	0046	0134	0222	0310	8.0	32.0	64	25	- 65	+ 20	+ 25
560.0	T4	20	0047	0135	0223	0311	9.0	36.0	55	20	- 65	+ 25	+ 30
560.0	T4	10	0048	0136	0224	0312	9.0	36.0	55	20	- 65	+ 25	+ 30

**Note**

\* Style CLR65 is inactive for new military design. For new design use Style CLR81.



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CAPACITANCE (μF)	CASE CODE	CAP. TOL. (± %)	PART NO. M39006/21- FAILURE RATE LEVEL (%/1000 h)				MAX. DCL (μA) at		MAX. DF at + 25 °C (%)	MAX. IMP. at - 55 °C (Ω)	MAX. CAPACITANCE CHANGE (%) at		
			L	M	P	R	+ 25 °C	+ 85 °C + 125 °C			- 55 °C	+ 85 °C	+ 125 °C
			2.0	1.0	0.1	0.01							
50 WVDC at + 85 °C . . . 30 WVDC at + 125 °C													
33.0	T1	20	0049	0137	0225	0313	2.0	9.0	12.3	135	- 29	+ 10	+ 12
33.0	T1	10	0050	0138	0226	0314	2.0	9.0	12.3	135	- 29	+ 10	+ 12
120.0	T2	20	0051	0139	0227	0315	4.0	24.0	22.5	49	- 42	+ 12	+ 15
120.0	T2	10	0052	0140	0228	0316	4.0	24.0	22.5	49	- 42	+ 12	+ 15
270.0	T3	20	0053	0141	0229	0317	8.0	32.0	37	29	- 46	+ 20	+ 25
270.0	T3	10	0054	0142	0230	0318	8.0	32.0	37	29	- 46	+ 20	+ 25
330.0	T4	20	0055	0143	0231	0319	9.0	36.0	38	22	- 46	+ 25	+ 30
330.0	T4	10	0056	0144	0232	0320	9.0	36.0	38	22	- 46	+ 25	+ 30
60 WVDC at + 85 °C . . . 40 WVDC at + 125 °C													
27.0	T1	20	0057	0145	0233	0321	3.0	12.0	10.2	144	- 24	+ 10	+ 12
27.0	T1	10	0058	0146	0234	0322	3.0	12.0	10.2	144	- 24	+ 10	+ 12
100.0	T2	20	0059	0147	0235	0323	4.0	20.0	19	54	- 36	+ 12	+ 15
100.0	T2	10	0060	0148	0236	0324	4.0	20.0	19	54	- 36	+ 12	+ 15
220.0	T3	20	0061	0149	0237	0325	8.0	32.0	30	29	- 40	+ 16	+ 20
220.0	T3	10	0062	0150	0238	0326	8.0	32.0	30	29	- 40	+ 16	+ 20
270.0	T4	20	0063	0151	0239	0327	9.0	36.0	27	23	- 45	+ 20	+ 25
270.0	T4	10	0064	0152	0240	0328	9.0	36.0	27	23	- 45	+ 20	+ 25
75 WVDC at + 85 °C . . . 50 WVDC at + 125 °C													
22.0	T1	20	0065	0153	0241	0329	3.0	12.0	8.5	157	- 19	+ 10	+ 12
22.0	T1	10	0066	0154	0242	0330	3.0	12.0	8.5	157	- 19	+ 10	+ 12
82.0	T2	20	0067	0155	0243	0331	4.0	24.0	15.2	63	- 30	+ 12	+ 15
82.0	T2	10	0068	0156	0244	0332	4.0	24.0	15.2	63	- 30	+ 12	+ 15
180.0	T3	20	0069	0157	0245	0333	9.0	36.0	24.4	30	- 35	+ 16	+ 20
180.0	T3	10	0070	0158	0246	0334	9.0	36.0	24.4	30	- 35	+ 16	+ 20
220.0	T4	20	0071	0159	0247	0335	10.0	40.0	37.0	24	- 40	+ 20	+ 25
220.0	T4	10	0072	0160	0248	0336	10.0	40.0	37.0	24	- 40	+ 20	+ 25
100 WVDC at + 85 °C . . . 65 WVDC at + 125 °C													
10.0	T1	20	0073	0161	0249	0337	3.0	12.0	4.5	200	- 17	+ 10	+ 12
10.0	T1	10	0074	0162	0250	0338	3.0	12.0	4.5	200	- 17	+ 10	+ 12
39.0	T2	20	0075	0163	0251	0339	5.0	24.0	10.4	80	- 20	+ 12	+ 15
39.0	T2	10	0076	0164	0252	0340	5.0	24.0	10.4	80	- 20	+ 12	+ 15
68.0	T3	20	0077	0165	0253	0341	10.0	40.0	11.3	40	- 30	+ 14	+ 16
68.0	T3	10	0078	0166	0254	0342	10.0	40.0	11.3	40	- 30	+ 14	+ 16
120.0	T4	20	0079	0167	0255	0343	12.0	48.0	25	30	- 35	+ 15	+ 17
120.0	T4	10	0080	0168	0256	0344	12.0	48.0	25	30	- 35	+ 15	+ 17
125 WVDC at + 85 °C . . . 85 WVDC at + 125 °C													
6.8	T1	20	0081	0169	0257	0345	3.0	12.0	6.0	300	- 14	+ 10	+ 12
6.8	T1	10	0082	0170	0258	0346	3.0	12.0	6.0	300	- 14	+ 10	+ 12
27.0	T2	20	0083	0171	0259	0347	5.0	24.0	7.2	90	- 18	+ 12	+ 15
27.0	T2	10	0084	0172	0260	0348	5.0	24.0	7.2	90	- 18	+ 12	+ 15
47.0	T3	20	0085	0173	0261	0349	10.0	40.0	7.9	50	- 26	+ 14	+ 16
47.0	T3	10	0086	0174	0262	0350	10.0	40.0	7.9	50	- 26	+ 14	+ 16
82.0	T4	20	0087	0175	0263	0351	12.0	48.0	17.4	32	- 30	+ 15	+ 17
82.0	T4	10	0088	0176	0264	0352	12.0	48.0	17.4	32	- 30	+ 15	+ 17

**Note**

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