

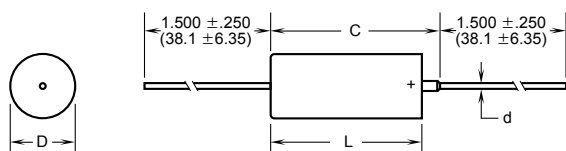
Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

125 °C, Hermetically Sealed, Axial Leaded, Solid Tantalum Capacitors



Type CSR13 (MIL-C-39003/01) military grade, axial leaded, solid tantalum capacitors are hermetically sealed for rugged environmental applications. They are miniature in size and are available in graded failure rate levels.

Outline Drawing



Highlights

- Hermetically Sealed
- Graded Failure Rates
- Low DC Leakage
- Long Shelf Life
- Low DF
- Temperature Stable
- Frequency Stable

Specifications

Capacitance Range:	.0047 to 330 μ F
Voltage Range:	6 to 100 WVdc at +85 °C
Capacitance Tolerance:	$\pm 10\%$, $\pm 20\%$, ($\pm 5\%$ by special order)
Operating Temperature Range:	-55 to +125 °C
Reverse Voltage (Non-continuous)	15% of rated voltage @ +25 °C 5% of rated voltage @ +85 °C 1% of rated voltage @ +125 °C
DC Leakage:	At +25 °C – See ratings limit At +85 °C – 10 x ratings limit At +125 °C – 12.5 x ratings limit
Capacitance Change Maximum:	-10% @ -55°C +8% @ +85 °C +12% @ +125 °C

Maximum Power Dissipation @ +25 °C:

Case Code	Watts
A	.090
B	.100
C	.125
D	.180

Case Sizes

Case Code	Uninsulated		Insulated		C Maximum	d $\pm .001$ ($\pm .03$)	Quantity Per Reel
	D $\pm .005$ ($\pm .13$)	L $\pm .031$ ($\pm .79$)	D $\pm .010$ ($\pm .25$)	L $\pm .031$ ($\pm .79$)			
A	.125 (3.18)	.250 (6.35)	.135 (3.43)	.286 (7.26)	.422 (10.72)	.020 (.51)	3,500
B	.175 (4.45)	.438 (11.13)	.185 (4.70)	.474 (12.04)	.610 (15.49)	.020 (.51)	2,500
C	.279 (7.09)	.650 (16.51)	.289 (7.34)	.686 (17.42)	.822 (20.88)	.025 (.64)	500
D	.341 (8.66)	.750 (19.05)	.351 (8.92)	.786 (19.96)	.922 (23.42)	.025 (.64)	400

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap (μF)	Catalog Part Number	Cap Tol. ± (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
6 WVdc @ +85 °C — 4 WVdc @ +125 °C												
5.6	CSR13B565K*	10	A	0.3	4	2241	2481	2721	2961	6002	7002	8002
6.8	CSR13B685K*	10	A	0.3	6	2242	2482	2722	2962	6004	7004	8004
6.8	CSR13B685M*	20	A	0.3	6	2243	2483	2723	2963	6005	7005	8005
47	CSR13B476K*	10	B	1.5	6	2244	2484	2724	2964	6007	7007	8007
47	CSR13B476M*	20	B	1.5	6	2245	2485	2725	2965	6008	7008	8008
56	CSR13B566K*	10	B	1.5	6	2246	2486	2726	2966	6010	7010	8010
150	CSR13B157K*	10	C	4.5	6	2247	2487	2727	2967	6012	7012	8012
150	CSR13B157M*	20	C	4.5	6	2248	2488	2728	2968	6013	7013	8013
180	CSR13B187K*	10	C	5.5	6	2249	2489	2729	2969	6015	7015	8015
270	CSR13B277K*	10	D	6.0	8	2250	2490	2730	2970	6017	7017	8017
330	CSR13B337K*	10	D	7.5	8	2251	2491	2731	2971	6019	7019	8019
330	CSR13B337M*	20	D	7.5	8	2252	2492	2732	2972	6020	7020	8020
10 WVdc @ +85 °C — 7 WVdc @ +125 °C												
3.9	CSR13C395K*	10	A	0.3	4	2253	2493	2733	2973	6022	7022	8022
4.7	CSR13C475K*	10	A	0.4	4	2254	2494	2734	2974	6024	7024	8024
4.7	CSR13C475M*	20	A	0.4	4	2255	2495	2735	2975	6025	7025	8025
27	CSR13C276K*	10	B	2.0	6	2256	2496	2736	2976	6027	7027	8027
33	CSR13C336K*	10	B	2.0	6	2257	2497	2737	2977	6029	7029	8029
33	CSR13C336M*	20	B	2.0	6	2258	2498	2738	2978	6030	7030	8030
39	CSR13C396K*	10	B	2.0	6	2259	2499	2739	2979	6032	7032	8032
82	CSR13C826K*	10	C	3.0	6	2260	2500	2740	2980	6034	7034	8034
100	CSR13C107K*	10	C	5.0	6	2261	2501	2741	2981	6036	7036	8036
100	CSR13C107M*	20	C	5.0	6	2262	2502	2742	2982	6037	7037	8037
120	CSR13C127K*	10	C	6.0	6	2263	2503	2743	2983	6039	7039	8039
180	CSR13C187K*	10	D	9.0	6	2264	2504	2744	2984	6041	7041	8041
220	CSR13C227K*	10	D	10.0	8	2265	2505	2745	2985	6043	7043	8043
220	CSR13C227M*	20	D	10.0	8	2266	2506	2746	2986	6044	7044	8044
15 WVdc @ +85 °C — 10 WVdc @ +125 °C												
2.7	CSR13D275K*	10	A	0.3	4	2267	2507	2747	2987	6046	7046	8046
3.3	CSR13D335K*	10	A	0.4	4	2268	2508	2748	2988	6048	7048	8048
3.3	CSR13D335M*	20	A	0.4	4	2269	2509	2749	2989	6049	7049	8049
18	CSR13D186K*	10	B	2.0	6	2270	2510	2750	2990	6051	7051	8051
22	CSR13D226K*	10	B	2.0	6	2271	2511	2751	2991	6053	7053	8053
22	CSR13D226M*	20	B	2.0	6.0	2272	2512	2752	2992	6054	7054	8054
56	CSR13D566K*	10	C	4.0	6.0	2273	2513	2753	2993	6056	7056	8056
68	CSR13D686K*	10	C	5.0	6.0	2274	2514	2754	2994	6058	7058	8058
68	CSR13D686M*	20	C	5.0	6.0	2275	2515	2755	2995	6059	7059	8059
120	CSR13D127K*	10	D	6.0	6.0	2276	2516	2756	2996	6061	7061	8061
150	CSR13D157K*	10	D	8.0	6.0	2277	2517	2757	2997	6063	7063	8063
150	CSR13D157M*	20	D	8.0	6.0	2278	2518	2758	2998	6064	7064	8064

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.
Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap Cap (μF)	Catalog Part Number	Cap Tolerance (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
20 WVdc @ +85 °C — 13 WVdc @ +125 °C												
1.2	CSR13E125K*	10	A	0.3	6	2279	2519	2759	2999	6066	7066	8066
1.5	CSR13E155K*	10	A	0.3	6	2280	2520	2760	3000	6068	7068	8068
1.5	CSR13E155M*	20	A	0.3	6	2281	2521	2761	3001	6069	7069	8069
1.8	CSR13E185K*	10	A	0.3	6	2282	2522	2762	3002	6071	7071	8071
2.2	CSR13E225K*	10	A	0.4	6	2283	2523	2763	3003	6073	7073	8073
2.2	CSR13E225M*	20	A	0.4	6	2284	2524	2764	3004	6074	7074	8074
8.2	CSR13E825K*	10	B	1.0	6	2285	2525	2765	3005	6076	7076	8076
10	CSR13E106K*	10	B	1.0	6	2286	2526	2766	3006	6078	7078	8078
10	CSR13E106M*	20	B	1.0	6	2287	2527	2767	3007	6079	7079	8079
12	CSR13E126K*	10	B	1.0	6	2288	2528	2768	3008	6081	7081	8081
15	CSR13E156K*	10	B	2.0	6	2289	2529	2769	3009	6083	7083	8083
15	CSR13E156M*	20	B	2.0	6	2290	2530	2770	3010	6084	7084	8084
27	CSR13E276K*	10	C	2.5	6	2291	2531	2771	3011	6086	7086	8086
33	CSR13E336K*	10	C	3.0	6	2292	2532	2772	3012	6088	7088	8088
33	CSR13E336M*	20	C	3.0	6	2293	2533	2773	3013	6089	7089	8089
39	CSR13E396K*	10	C	3.0	6	2294	2534	2774	3014	6091	7091	8091
47	CSR13E476K*	10	C	4.5	6	2295	2535	2775	3015	6093	7093	8093
47	CSR13E476M*	20	C	4.5	6	2296	2536	2776	3016	6094	7094	8094
56	CSR13E566K*	10	D	5.5	6	2297	2537	2777	3017	6096	7096	8096
68	CSR13E686K*	10	D	6.0	6	2298	2538	2778	3018	6098	7098	8098
68	CSR13E686M*	20	D	6.0	6	2299	2539	2779	3019	6099	7099	8099
82	CSR13E826K*	10	D	6.0	6	2300	2540	2780	3020	6101	7101	8101
100	CSR13E107K*	10	D	10.0	6	2301	2541	2781	3021	6103	7103	8103
100	CSR13E107M*	20	D	10.0	6	2302	2542	2782	3022	6104	7104	8104
35 WVdc @ +85 °C — 23 WVdc @ +125 °C												
5.6	CSR13F565K*	10	B	1.0	4	2303	2543	2783	3023	6106	7106	8106
6.8	CSR13F685K*	10	B	1.5	4	2304	2544	2784	3024	6108	7108	8108
6.8	CSR13F685M*	20	B	1.5	4	2305	2545	2785	3025	6109	7109	8109
22.0	CSR13F226K*	10	C	4.0	4	2306	2546	2786	3026	6111	7111	8111
22.0	CSR13F226M*	20	C	4.0	4	2307	2547	2787	3027	6112	7112	8112
27.0	CSR13F276K*	10	D	4.5	4	2308	2548	2788	3028	6114	7114	8114
33.0	CSR13F336K*	10	D	5.5	4	2309	2549	2789	3029	6116	7116	8116
33.0	CSR13F336M*	20	D	5.5	4	2310	2550	2790	3030	6117	7117	8117
39.0	CSR13F396K*	10	D	6.0	4	2311	2551	2791	3031	6119	7119	8119
47.0	CSR13F476K*	10	D	6.0	4	2312	2552	2792	3032	6121	7121	8121
47.0	CSR13F476M*	20	D	8.0	4	2313	2553	2793	3033	6122	7122	8122
50 WVdc @ +85 °C — 33 WVdc @ +125 °C												
0.0047	CSR13G472K*	10	A	0.1	2	2314	2554	2794	3034	6124	7124	8124
0.0047	CSR13G472M*	20	A	0.1	2	2315	2555	2795	3035	6125	7125	8125
0.0056	CSR13G562K*	10	A	0.1	2	2316	2556	2796	3036	6127	7127	8127

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.

Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap (μF)	Catalog Part Number	Cap Tolerance (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
50 WVdc @ +85 °C — 33 WVdc @ +125 °C												
0.0068	CSR13G682K*	10	A	0.1	2	2317	2557	2797	3037	6129	7129	8129
0.0068	CSR13G682M*	20	A	0.1	2	2318	2558	2798	3038	6130	7130	8130
0.0082	CSR13G822K*	10	A	0.1	2	2319	2559	2799	3039	6132	7132	8132
0.010	CSR13G103K*	10	A	0.1	2	2320	2560	2800	3040	6134	7134	8134
0.010	CSR13G103M*	20	A	0.1	2	2321	2561	2801	3041	6135	7135	8135
0.012	CSR13G123K*	10	A	0.1	2	2322	2562	2802	3042	6137	7137	8137
0.015	CSR13G153K*	10	A	0.1	2	2323	2563	2803	3043	6139	7139	8139
0.015	CSR13G153M*	20	A	0.1	2	2324	2564	2804	3044	6140	7140	8140
0.018	CSR13G183K*	10	A	0.1	2	2325	2565	2805	3045	6142	7142	8142
0.022	CSR13G223K*	10	A	0.1	2	2326	2566	2806	3046	6144	7144	8144
0.022	CSR13G223M*	20	A	0.1	2	2327	2567	2807	3047	6145	7145	8145
0.027	CSR13G273K*	10	A	0.1	2	2328	2568	2808	3048	6147	7147	8147
0.033	CSR13G333K*	10	A	0.1	2	2329	2569	2809	3049	6149	7149	8149
0.033	CSR13G333M*	20	A	0.1	2	2330	2570	2810	3050	6150	7150	8150
0.039	CSR13G393K*	10	A	0.1	2	2331	2571	2811	3051	6152	7152	8152
0.047	CSR13G473K*	10	A	0.1	2	2332	2572	2812	3052	6154	7154	8154
0.047	CSR13G473M*	20	A	0.1	2	2333	2573	2813	3053	6155	7155	8155
0.056	CSR13G563K*	10	A	0.1	2	2334	2574	2814	3054	6157	7157	8157
0.068	CSR13G683K*	10	A	0.1	2	2335	2575	2815	3055	6159	7159	8159
0.068	CSR13G683M*	20	A	0.1	2	2336	2576	2816	3056	6160	7160	8160
0.082	CSR13G823K*	10	A	0.1	2	2337	2577	2817	3057	6162	7162	8162
0.10	CSR13G104K*	10	A	0.3	2	2338	2578	2818	3058	6164	7164	8164
0.10	CSR13G104M*	20	A	0.3	2	2339	2579	2819	3059	6165	7165	8165
0.12	CSR13G124K*	10	A	0.3	2	2340	2580	2820	3060	6167	7167	8167
0.15	CSR13G154K*	10	A	0.3	2	2341	2581	2821	3061	6169	7169	8169
0.15	CSR13G154M*	20	A	0.3	2	2342	2582	2822	3062	6170	7170	8170
0.18	CSR13G184K*	10	A	0.3	2	2343	2583	2823	3063	6172	7172	8172
0.22	CSR13G224K*	10	A	0.3	2	2344	2584	2824	3064	6174	7174	8174
0.22	CSR13G224M*	20	A	0.3	2	2345	2585	2825	3065	6175	7175	8175
0.27	CSR13G274K*	10	A	0.3	2	2346	2586	2826	3066	6177	7177	8177
0.33	CSR13G334K*	10	A	0.3	2	2347	2587	2827	3067	6179	7179	8179
0.33	CSR13G334M*	20	A	0.3	2	2348	2588	2828	3068	6180	7180	8180
0.39	CSR13G394K*	10	A	0.3	2	2349	2589	2829	3069	6182	7182	8182
0.47	CSR13G474K*	10	A	0.3	2	2350	2590	2830	3070	6184	7184	8184
0.47	CSR13G474M*	20	A	0.3	2	2351	2591	2831	3071	6185	7185	8185
0.56	CSR13G564K*	10	A	0.3	2	2352	2592	2832	3072	6187	7187	8187
0.68	CSR13G684K*	10	A	0.3	2	2353	2593	2833	3073	6189	7189	8189
0.68	CSR13G684M*	20	A	0.3	2	2354	2594	2834	3074	6190	7190	8190
0.82	CSR13G824K*	10	A	0.3	2	2355	2595	2835	3075	6192	7192	8192
1.00	CSR13G105K*	10	A	0.4	2	2356	2596	2836	3076	6194	7194	8194

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.

Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap (μF)	Catalog Part Number	Cap Tolerance (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
50 WVdc @ +85 °C — 33 WVdc @ +125 °C												
1	CSR13G105M*	20	A	0.4	2	2357	2597	2837	3077	6195	7195	8195
1.2	CSR13G125K*	10	B	0.4	4	2358	2598	2838	3078	6197	7197	8197
1.5	CSR13G155K*	10	B	0.5	4	2359	2599	2839	3079	6199	7199	8199
1.5	CSR13G155M*	20	B	0.5	4	2360	2600	2840	3080	6200	7200	8200
1.8	CSR13G185K*	10	B	0.5	4	2361	2601	2841	3081	6202	7202	8202
2.2	CSR13G225K*	10	B	0.8	4	2362	2602	2842	3082	6204	7204	8204
2.2	CSR13G225M*	20	B	0.8	4	2363	2603	2843	3083	6205	7205	8205
2.7	CSR13G275K*	10	B	0.8	4	2364	2604	2844	3084	6207	7207	8207
3.3	CSR13G335K*	10	B	1.2	4	2365	2605	2845	3085	6209	7209	8209
3.3	CSR13G335M*	20	B	1.2	4	2366	2606	2846	3086	6210	7210	8210
3.9	CSR13G395K*	10	B	1.5	4	2367	2607	2847	3087	6212	7212	8212
4.7	CSR13G475K*	10	B	1.7	4	2368	2608	2848	3088	6214	7214	8214
4.7	CSR13G475M*	20	B	1.7	4	2369	2609	2849	3089	6215	7215	8215
5.6	CSR13G565K*	10	C	2.2	4	2370	2610	2850	3090	6217	7217	8217
6.8	CSR13G685K*	10	C	2.2	4	2371	2611	2851	3091	6219	7219	8219
6.8	CSR13G685M*	20	C	2.2	4	2372	2612	2852	3092	6220	7220	8220
8.2	CSR13G825K*	10	C	2.5	4	2373	2613	2853	3093	6222	7222	8222
10	CSR13G106K*	10	C	2.5	4	2374	2614	2854	3094	6224	7224	8224
10	CSR13G106M*	20	C	2.5	4	2375	2615	2855	3095	6225	7225	8225
12	CSR13G126K*	10	C	0.3	4	2376	2616	2856	3096	6227	7227	8227
15	CSR13G156K*	10	C	4.0	4	2377	2617	2857	3097	6229	7229	8229
15	CSR13G156M*	20	C	4.0	4	2378	2618	2858	3098	6230	7230	8230
18	CSR13G186K*	10	C	4.5	4	2379	2619	2859	3099	6232	7232	8232
22	CSR13G226K*	10	D	5.5	4	2380	2620	2860	3100	6234	7234	8234
22	CSR13G226M*	20	D	5.5	4	2381	2621	2861	3101	6235	7235	8235
75 WVdc @ +85 °C — 50 WVdc @ +125 °C												
0.10	CSR13H104K*	10	A	0.3	2	2382	2622	2862	3102	6237	7237	8237
0.10	CSR13H104M*	20	A	0.3	2	2383	2623	2863	3103	6238	7238	8238
0.12	CSR13H124K*	10	A	0.3	2	2384	2624	2864	3104	6240	7240	8240
0.15	CSR13H154K*	10	A	0.3	2	2385	2625	2865	3105	6242	7242	8242
0.15	CSR13H154M*	20	A	0.3	2	2386	2626	2866	3106	6243	7243	8243
0.18	CSR13H184K*	10	A	0.3	2	2387	2627	2867	3107	6245	7245	8245
0.22	CSR13H224K*	10	A	0.3	2	2388	2628	2868	3108	6247	7247	8247
0.22	CSR13H224M*	20	A	0.3	2	2389	2629	2869	3109	6248	7248	8248
0.27	CSR13H274K*	10	A	0.3	2	2390	2630	2870	3110	6250	7250	8250
0.33	CSR13H334K*	10	A	0.3	2	2391	2631	2871	3111	6252	7252	8252
0.33	CSR13H334M*	20	A	0.3	2	2392	2632	2872	3112	6253	7253	8253
0.39	CSR13H394K*	10	A	0.3	2	2393	2633	2873	3113	6255	7255	8255
0.47	CSR13H474K*	10	A	0.3	2	2394	2634	2874	3114	6257	7257	8257
0.47	CSR13H474M*	20	A	0.3	2	2395	2635	2875	3115	6258	7258	8258
0.68	CSR13H684M*	20	A	0.3	2	2398	2638	2878	3118	6263	7263	8263

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.

Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap (μF)	Catalog Part Number	Cap Tolerance (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
75 WVdc @ +85 °C — 50 WVdc @ +125 °C												
0.56	CSR13H564K*	10	A	0.3	2	2396	2636	2876	3116	6260	7260	8260
0.68	CSR13H684K*	10	A	0.3	2	2397	2637	2877	3117	6262	7262	8262
0.82	CSR13H824K*	10	B	0.3	2	2399	2639	2879	3119	6265	7265	8265
1.0	CSR13H105K*	10	B	0.3	2	2400	2640	2880	3120	6267	7267	8267
1.0	CSR13H105M*	20	B	0.3	2	2401	2641	2881	3121	6268	7268	8268
1.2	CSR13H125K*	10	B	0.3	4	2402	2642	2882	3122	6270	7270	8270
1.5	CSR13H155K*	10	B	0.6	4	2403	2643	2883	3123	6272	7272	8272
1.5	CSR13H155M*	20	B	0.6	4	2404	2644	2884	3124	6273	7273	8273
1.8	CSR13H185K*	10	B	0.7	4	2405	2645	2885	3125	6275	7275	8275
2.2	CSR13H225K*	10	B	0.8	4	2406	2646	2886	3126	6277	7277	8277
2.2	CSR13H225M*	20	B	0.8	4	2407	2647	2887	3127	6278	7278	8278
2.7	CSR13H275K*	10	B	1.0	4	2408	2648	2888	3128	6280	7280	8280
3.3	CSR13H335K*	10	B	1.2	4	2409	2649	2889	3129	6282	7282	8282
3.3	CSR13H335M*	20	B	1.2	4	2410	2650	2890	3130	6283	7283	8283
3.9	CSR13H395K*	10	B	1.5	4	2411	2651	2891	3131	6285	7285	8285
4.7	CSR13H475K*	10	C	3	4	2412	2652	2892	3132	6287	7287	8287
4.7	CSR13H475M*	20	C	3	4	2413	2653	2893	3133	6288	7288	8288
5.6	CSR13H565K*	10	C	3	4	2414	2654	2894	3134	6290	7290	8290
6.8	CSR13H685K*	10	C	5	4	2415	2655	2895	3135	6292	7292	8292
6.8	CSR13H685M*	20	C	5	4	2416	2656	2896	3136	6293	7293	8293
8.2	CSR13H825K*	10	C	5	4	2417	2657	2897	3137	6295	7295	8295
10	CSR13H106K*	10	C	5	4	2418	2658	2898	3138	6297	7297	8297
10	CSR13H106M*	20	C	5	4	2419	2659	2899	3139	6298	7298	8298
12	CSR13H126K*	10	D	5	4	2420	2660	2900	3140	6300	7300	8300
15	CSR13H156K*	10	D	7	4	2421	2661	2901	3141	6302	7302	8302
15	CSR13H156M*	20	D	7	4	2422	2662	2902	3142	6303	7303	8303
100 WVdc @ +85 °C — 67 WVdc @ +125 °C												
0.0047	CSR13J472K*	10	A	0.3	2	2423	2663	2903	3143	6305	7305	+8305
0.0047	CSR13J472M*	20	A	0.3	2	2424	2664	2904	3144	6306	7306	+8306
0.0056	CSR13J562K*	10	A	0.3	2	2425	2665	2905	3145	6308	7308	+8308
0.0068	CSR13J682K*	10	A	0.3	2	2426	2666	2906	3146	6310	7310	+8310
0.0068	CSR13J682M*	20	A	0.3	2	2427	2667	2907	3147	6311	7311	+8311
0.0082	CSR13J822K*	10	A	0.3	2	2428	2668	2908	3148	6313	7313	+8313
0.010	CSR13J103K*	10	A	0.3	2	2429	2669	2909	3149	6315	7315	+8315
0.010	CSR13J103M*	20	A	0.3	2	2430	2670	2910	3150	6316	7316	+8316
0.012	CSR13J123K*	10	A	0.3	2	2431	2671	2911	3151	6318	7318	+8318

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.

Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

+ C failure rate: Not QPL for +7390 thru +7401

+ D failure rate: Not QPL for +8305 thru +8401

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Ratings

Cap Cap (μF)	Catalog Part Number	Cap Tolerance (%)	Case Code	Max DCL @ +25 °C (μA)	Max. DF @ +25 °C 120 Hz (%)	MIL-C-39003/1 (CSR 13) Dash Numbers						
						Exponential Failure Rate (% per 1000 hours)				Weibull Failure Rate (% per 1000 hours)		
						'M' Level (1.0)	'P' Level (.10)	'R' Level (.01)	'S' Level (.001)	'B' Level (.10)	'C' Level (.01)	'D' Level (.001)
100 WVdc @ +85 °C — 67 WVdc @ +125 °C												
0.015	CSR13J153K*	10	A	0.3	2	2432	2672	2912	3152	6320	7320	+8320
0.015	CSR13J153M*	20	A	0.3	2	2433	2673	2913	3153	6321	7321	+8321
0.018	CSR13J183K*	10	A	0.3	2	2434	2674	2914	3154	6323	7323	+8323
0.022	CSR13J223K*	10	A	0.3	2	2435	2675	2915	3155	6325	7325	+8325
0.022	CSR13J223M*	20	A	0.3	2	2436	2676	2916	3156	6326	7326	+8326
0.27	CSR13J274K*	10	A	0.3	2	2455	2695	2935	3175	6358	7358	+8358
0.33	CSR13J334K*	10	A	0.3	2	2456	2696	2936	3176	6360	7360	+8360
0.33	CSR13J334M*	20	A	0.3	2	2457	2697	2937	3177	6361	7361	+8361
0.39	CSR13J394K*	10	A	0.3	2	2458	2698	2938	3178	6363	7363	+8363
0.47	CSR13J474K*	10	A	0.3	2	2459	2699	2939	3179	6365	7365	+8365
0.47	CSR13J474M*	20	A	0.3	2	2460	2700	2940	3180	6366	7366	+8366
0.56	CSR13J564K*	10	A	0.3	2	2461	2701	2941	3181	6368	7368	+8368
0.68	CSR13J684K*	10	B	0.3	2	2462	2702	2942	3182	6370	7370	+8370
0.68	CSR13J684M*	20	B	0.3	2	2463	2703	2943	3183	6371	7371	+8371
0.82	CSR13J824K*	10	B	0.4	2	2464	2704	2944	3184	6373	7373	+8373
1.0	CSR13J105K*	10	B	0.5	2	2465	2705	2945	3185	6375	7375	+8375
1.0	CSR13J105M*	20	B	0.5	2	2466	2706	2946	3186	6376	7376	+8376
1.2	CSR13J125K*	10	B	0.5	3	2467	2707	2947	3187	6378	7378	+8378
1.5	CSR13J155K*	10	B	0.7	3	2468	2708	2948	3188	6380	7380	+8380
1.5	CSR13J155M*	20	B	0.7	3	2469	2709	2949	3189	6381	7381	+8381
1.8	CSR13J185K*	10	B	0.7	3	2470	2710	2950	3190	6383	7383	+8383
2.2	CSR13J225K*	10	B	0.9	3	2471	2711	2951	3191	6385	7385	+8385
2.2	CSR13J225M*	20	B	0.9	3	2472	2712	2952	3192	6386	7386	+8386
2.7	CSR13J275K*	10	B	1.1	3	2473	2713	2953	3193	6388	7388	+8388
3.3	CSR13J335K*	10	C	1.5	3	5157	5357	5557	5757	6390	+7390	+8390
3.3	CSR13J335M*	20	C	1.5	3	5158	5358	5558	5758	6391	+7391	+8391
3.9	CSR13J395K*	10	C	1.5	3	5160	5360	5560	5760	6393	+7393	+8393
4.7	CSR13J475K*	10	C	2.5	3	5162	5362	5562	5762	6395	+7395	+8395
4.7	CSR13J475M*	20	C	2.5	3	5163	5363	5563	5763	6396	+7396	+8396
5.6	CSR13J565K*	10	C	2.5	3	5165	5365	5565	5765	6398	+7398	+8398
6.8	CSR13J685K*	10	C	2.5	3	5167	5367	5567	5767	6400	+7400	+8400
6.8	CSR13J685M*	20	C	2.5	3	5168	5368	5568	5768	6401	+7401	+8401

TO ORDER: Indicate the prefix M39003/01 followed by the applicable MIL dash number.

Example: For M39003/01-2241 or CSR13B565KM; order CSR132241

+ C failure rate: Not QPL for +7390 thru +7401

+ D failure rate: Not QPL for +8305 thru +8401

* Failure rate level indicator
(M, P, R, S)

Type CSR13 (MIL-C-39003/01) Solid Tantalum Capacitors

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.