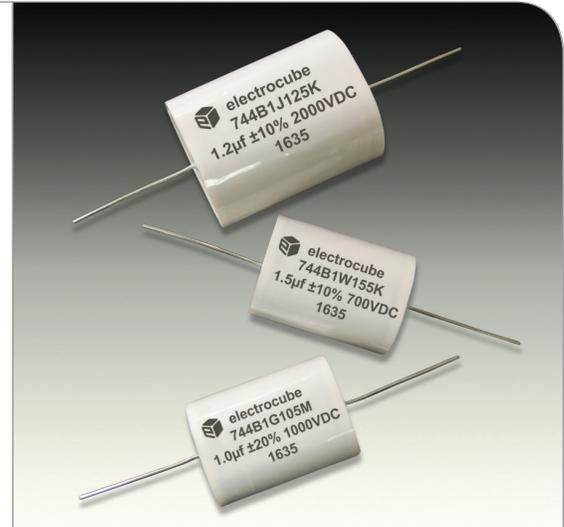
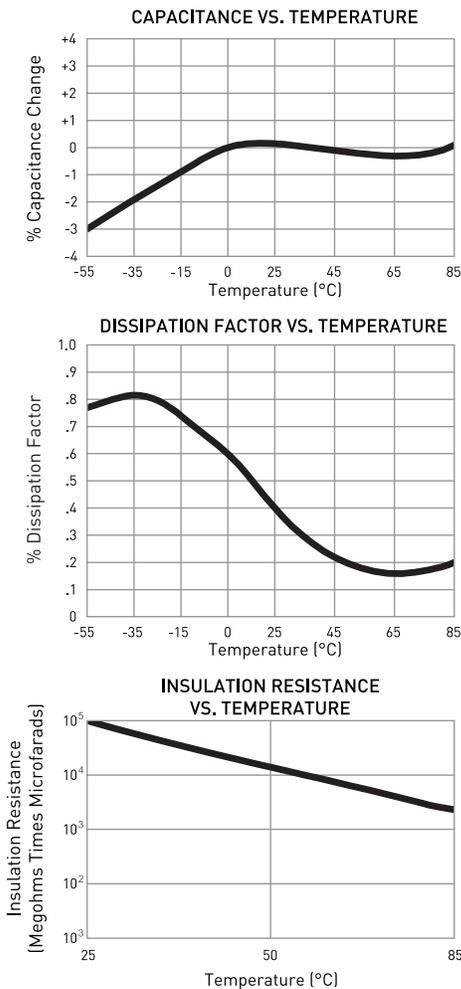


Metallized Combination Film, IGBT Snubber 744B Series Film Capacitors

High Current

The Electrocube 744B series is part of a designated line of film capacitors specially designed and optimized for high current applications subject to AC and pulsing signals. This film capacitor series offers high frequency operation and stability in a miniature package able to handle high surge currents without degrading. It's a rugged, non-inductively wound metallized capacitor with flame-retardant polyester outer wrap and flame-retardant epoxy endfill. Manufactured with design expertise and high-grade materials, engineers prefer the 744B series for any high current applications such as avionics, wind generation and other high power applications.

Typical Dielectric Characteristic Curves



744B Series
Available in oval shape

Features

- Protective clear wrap offered on all wrap and fill units
- Extended electrode construction and standard tin-coated, oxygen-free solid copper leads
- Tolerances available: ±5%, ±10%, ±20%
- Epoxy Resin endfills meet or exceed flammability requirements of UL94V0
- Compliance and certification to worldwide and other environmental standards available upon request; available in RoHS construction only
- May be used for frequencies up to 100 KHz
- Applications include pulse, filter circuits as well as audio amplifiers, speakers and musical instruments
- Customizable insulating sleeves, mountings, special terminals, non-standard leads, circuit connections and other hardware
- Assorted styles, ratings and customization for unusual requirements necessitated by special circuit applications [including higher IR or lower DF]
- Dimensional variations for all mfd. values available with same volume

Specifications

Temperature range

- -55°C to +85°C at rated voltage

Dielectric voltage test

- Will withstand 200% of DC rated voltage for a period not to exceed 1 minute at temperature of 25°C
- Current limited to 5 mA

DC life test

- Will withstand 140% of DC rated voltage at 150°C for 250 hours with not more than 1 failure in 12 permitted
- Current limited to 5 mA
- Additional life test details available

Insulation resistance

- $\geq 30\text{Kmeg} \times \mu\text{f}$, NTE 100Kmeg

Dissipation factor

- Will not exceed 0.06% 1KHz at 25°C

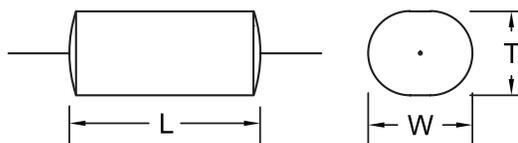
Dielectric absorption

- Will not exceed 0.02% at 25°C per MIL-C-19978

Acceptance criteria

- Measurement frequency for capacitance and dissipation factor will be 1,000 Hz

Wrap and Fill Round Configuration



For max T, W, and L dimensions, allow +.078".

LEAD LENGTH: 2.0" \pm .50"

700 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.22	744B1W224*	1.26	.53	.34	20	480	106	5.5	7.5	
.33	744B1W334*	1.26	.69	.37	20	480	158	6	7.0	
.47	744B1W474*	1.26	.78	.47	20	480	226	8	5.7	
.68	744B1W684*	1.73	.76	.44	18	325	321	9	5.4	
.68	744B1W684*-L	1.26	.90	.59	18	480	326	9	4.9	
1.0	744B1W105*	1.73	.87	.56	16	325	325	9	4.9	
1.5	744B1W155*	1.73	1.03	.71	16	325	488	12	4.3	
2.0	744B1W205*	1.73	1.16	.85	16	325	650	12	4.0	
2.2	744B1W225*	2.25	1.02	.70	16	240	528	12	4.8	
2.2	744B1W225*-L	1.73	1.21	.89	16	325	715	12	3.9	
2.5	744B1W255*	2.25	1.07	.76	16	240	600	12	4.8	
2.5	744B1W255*-L	1.73	1.28	.96	16	325	813	12	4.5	
3.0	744B1W305*	2.25	1.15	.84	16	240	720	12	4.3	
3.0	744B1W305*-L	1.73	1.38	1.07	16	325	975	12	4.1	
3.3	744B1W335*	1.73	1.44	1.13	16	325	1073	12	3.9	
3.5	744B1W355*	2.25	1.23	.92	16	240	840	12	3.7	
3.5	744B1W355*-L	2.25	1.31	.99	16	240	960	12	3.6	
4.0	744B1W405*	2.25	1.40	1.09	16	240	1128	12	3.5	
5.6	744B1W565*	2.25	1.52	1.20	16	240	1344	12	3.3	
6.8	744B1W685*	2.25	1.63	1.32	16	240	1632	12	3.0	

1000 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.10	744B1G104*	1.26	.49	.30	20	850	85	5	9.5	
.15	744B1G154*	1.26	.65	.33	20	850	128	6	9.2	
.22	744B1G224*	1.26	.75	.43	18	850	187	7	6.9	
.33	744B1G334*	1.73	.73	.41	18	570	188	9	6.8	
.33	744B1G334*-L	1.26	.87	.55	18	850	281	9	5.5	
.47	744B1G474*	1.73	.83	.52	18	570	268	9	5.7	
.47	744B1G474*-L	1.26	1.00	.68	18	850	400	9	4.8	
.68	744B1G684*	1.73	.96	.65	18	570	388	9	5.0	
1.0	744B1G105*	1.73	1.13	.81	16	570	570	12	4.2	
1.5	744B1G155*	2.25	1.12	.80	16	340	510	12	4.9	
1.5	744B1G155*-L	1.73	1.34	1.02	16	570	855	12	4.6	
2.0	744B1G205*	2.25	1.26	.95	16	340	680	12	4.0	
2.2	744B1G225*	2.25	1.32	1.00	16	340	748	12	3.7	
3.0	744B1G305*	2.25	1.51	1.20	16	340	1020	12	3.4	
3.3	744B1G335*	2.25	1.58	1.26	16	340	1122	12	3.1	

1500 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.068	744B1H683*	1.26	.55	.36	20	1225	83	4	13.8	
.10	744B1H104*	1.26	.71	.39	20	1225	125	5.5	9.6	
.15	744B1H154*	1.26	.83	.51	18	1225	184	7	7.2	
.22	744B1H224*	1.73	.80	.48	18	800	176	9	7.0	
.22	744B1H224*-L	1.26	.96	.65	18	1225	270	9	5.3	
.33	744B1H334*	1.73	.94	.74	18	800	264	9	4.3	
.47	744B1H474*	1.73	1.34	1.04	20	800	376	11	3.7	
.68	744B1H688*	1.73	1.27	.95	20	800	544	12	3.2	
1.0	744B1H105*	2.25	1.25	.94	20	800	570	12	3.4	
1.0	744B1H105*-L	1.73	1.50	1.19	20	800	800	12	3.7	
1.2	744B1H125*	2.25	1.35	1.04	20	570	684	12	2.9	
1.5	744B1H155*	2.25	1.49	1.18	20	570	855	12	2.7	
2.0	744B1H205*	2.25	1.70	1.38	20	570	1140	12	2.5	

2000 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.022	744B1J223*	1.26	.43	.24	20	1750	39	2.5	35.5	
.033	744B1J333*	1.26	.49	.30	20	1750	58	3.5	24.7	
.047	744B1J473*	1.73	.47	.28	20	1000	47	4	22.0	
.047	744B1J473*-L	1.26	.56	.37	20	1750	82	4.5	17.8	
.068	744B1J683*	1.73	.54	.35	20	1000	68	5.5	17.3	
.068	744B1J683*-L	1.26	.72	.41	18	1750	119	5.5	12.8	
.10	744B1J104*	1.73	.70	.39	18	1000	100	7	13.4	
.10	744B1J104*-L	1.26	.83	.52	18	1750	175	7.5	9.4	
.15	744B1J154*	1.73	.81	.50	18	1000	150	9	7.6	
.22	744B1J224*	1.73	.94	.63	18	1000	220	9	7	
.33	744B1J334*	1.73	1.11	.80	16	1000	330	12	5.7	
.47	744B1J474*	1.73	1.18	.87	16	1000	473	12	4.9	
.56	744B1J564*	2.24	1.17	.85	16	640	358	12	5.5	
.56	744B1J564*-L	1.73	1.40	1.09	16	1000	560	12	4.6	
.68	744B1J684*	2.24	1.27	.96	16	640	435	12	5.0	
1.0	744B1J105*	2.24	1.50	1.19	16	640	640	12	4.3	
1.2	744B1J125*	2.24	1.63	1.32	16	640	768	12	4.0	

2500 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.022	744B1K223*	1.26	.50	.30	20	2150	47	3.5	25.0	
.033	744B1K333*	1.26	.65	.33	20	2150	71	4	23.7	
.047	744B1K473*	1.26	.73	.41	20	2150	101	6.5	16.5	
.068	744B1K683*	1.26	.84	.52	18	2150	146	8.5	12.1	
.10	744B1K104*	1.73	.81	.50	18	1350	135	9	13.2	
.10	744B1K104*-L	1.26	.98	.66	18	2150	215	8.5	8.8	
.15	744B1K154*	1.73	.95	.64	18	1350	203	11	9.1	
.22	744B1K224*	1.73	1.12	.80	16	1350	297	12	6.9	
.33	744B1K334*	2.24	1.11	.80	16	880	290	12	6.4	
.33	744B1K334*-L	1.73	1.33	1.01	16	1350	446	12	5.5	
.47	744B1K474*	2.24	1.29	.95	16	880	414	12	5.4	
.68	744B1K684*	2.24	1.52	1.20	16	880	598	12	4.7	
.82	744B1K824*	2.24	1.65	1.34	16	880	722	12	4.3	

3000 VOLTAGE DC										
MFD.	PART NO.	DIMENSIONS			LEAD SIZE (AWG)	DU/dt (V/ μ s)	I _{peak} (A)	IRMS MAX (A)	ESR (m Ω)	
		T	W	L						
.0068	744B1L682*	1.26	.39	.20	20	2750	19	1.5	90.0	
.010	744B1L103*	1.26	.45	.26	20	2750	28	2	61.8	
.015	744B1L153*	1.26	.52	.33	20	2750	41	3	43.5	
.022	744B1L223*	1.26	.67	.36	20	2750	61	4	29.5	
.033	744B1L333*	1.26	.78	.46	18	2750	91	5	20.7	
.047	744B1L473*	1.73	.75	.43	18	1600	75	6	18.8	
.047	744B1L473*-L	1.26	.89	.58	18	2750	129	6.5	14.8	
.068	744B1L683*	1.73	.86	.55	18	1600	109	8	13.8	
.10	744B1L104*	1.73	1.01	.69	16	1600	160	11	10.4	
.15	744B1L154*	1.73	1.19	.88	16	1600	240	12	7.8	
.22	744B1L224*	2.24	1.17	.86	16	990	218	12	6.9	
.22	744B1L224*-L	1.73	1.41	1.09	16	1600	352	12	6.2	
.33	744B1L334*	2.24	1.40	1.09	16	990	327	12	5.9	
.39	744B1L394*	2.24	1.51	1.19	16	990	368	12	5.4	
.47	744B1L474*	2.24	1.64	1.32	16	990	465	12	5.0	

* Consult factory as sizes may change

Add tolerance designator to complete part number: J = $\pm 5\%$, K = $\pm 10\%$, M = $\pm 20\%$

For questions and/or a quote, contact Sales at 909-595-4037 or info@electrocube.com.



Founded in 1961, Electrocube is one of the most respected design manufacturers of passive electrical components – film capacitors, RC Networks, EMI Filters and foil transformers – for a wide range of standard and custom applications in the aerospace, audio, elevator, heavy equipment industries and more. Electrocube's hallmark is its clear understanding of the challenges faced by design engineers and purchasing agents. www.electrocube.com