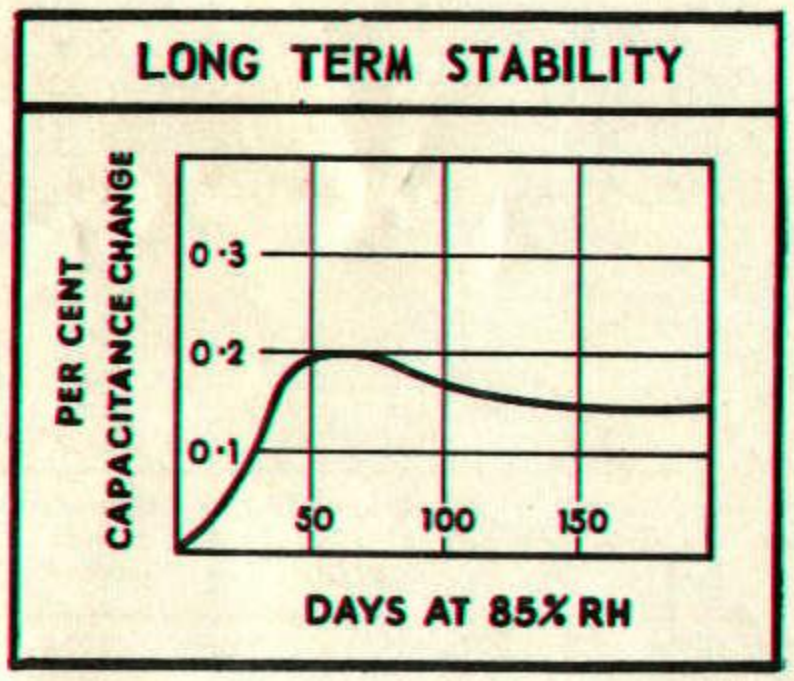
STYROSEAL CAPACITORS TYPE DFB

Ducon "Styroseal" capacitors are particularly suitable for use with IF transformers, ratio detectors, filter circuits, FM discriminators, coupling and decoupling at all frequencies, computing circuits, tuned circuits, X-ray dosage, and many other applications where high insulation resistance, capacitance stability, and low dielectric absorption are designed prerequisites.

They are available in DC working voltage ratings of 125, 200, 400, 600, 1000 and 2000 volts with nominal capacitance values shown in the six accompanying tables.

Features are: Extremely high insulation resistance; negligible moisture absorption; constant temperature coefficient of capacitance; low dielectric absorption and low power factor, and excellent long term stability characteristics as shown in curve below.



Special techniques employed during manufacture take advantage of the rapid and permanent film relaxation occurring at critical elevated temperature.

This relaxation eliminates spaces between electrodes, seals the ends, grips the welded terminations, obviates impregnation, and results in a very stable capacitor self-encapsulated in the moisture repellent outside wraps of film.

The most important feature is the insulation resistance which exceeds that of any other capacitor. This may be seen by comparing the accepted standards for typical .01 mfd capacitors:

Styroseal capacitor	$\geq$	1,000,000 megohms
Mica dielectric capacitor	$\geq$	25,000 megohms
Paper dielectric capacitor	$\geq$	10,000 megohms

Styroseal capacitors exhibit a well-defined temperature capacitance excursion which is repeatable from batch to batch. The temperature coefficient of capacitance is - 120 ± 30 ppm per degree Centigrade in the temperature range - 40°C to + 80°C.

The extremely low power factor compares favourably with that of good quality mica, and is constant over a wide frequency range. They may be used in tuned circuits at frequencies up to 100 Mc/s without loss in circuit constants.

Where circuit conditions are such that both direct and alternating voltages are encountered, the working voltage must be considered as the sum of direct and peak alternating voltages for frequencies up to 10 Kc/s where an essentially sinusoidal voltage is employed.

For operation under pulse conditions, Ducon Sales Division will be pleased to supply information.

CONDENSED SPECIFICATIONS

Insulation Resistance up to 0.22 µF	$\nless 10^6$ megohms
Insulation Resistance above 0.22 µF	$\nless \frac{250,000}{\text{nom. Cap. in } \mu F}$ megohms
Power Factor at 1 Kc/s at 26°C	0.05%
Temp. Coeff. of Capacitance	− 120 ± 30 ppm/°C
Temperature range	− 40°C to + 80°C
Capacitance Tolerances at 26°C (closer tolerances can be made available to order)	± 20% ± 10% ± 5%
Moisture Absorption	Negligible
Capacitance Stability	Better than 1%
Test Voltage DC	Working Voltage × 2
Dielectric Absorption	< 0.1%
Max. AC (within voltage limit)	0.2 amp.
Capacitor Length Tolerances	− .000" + .093"

Welded axial leads, solder coated copper, minimum length 1¼" x SWG shown in tables. In the larger physical sizes 20 SWG pigtails firmly embedded in the polystyrene core, provide additional mechanical support, 26 SWG lead-out wires being terminated and soldered thereto.

(P.O. Box 2, Villawood, N.S.W.) **DUCON CONDENSER PTY. LTD.** (Phone 72 0133)
LEIGHTONFIELD WORKS, VILLAWOOD, N.S.W., AUSTRALIA

Victoria and Tasmania: Ducon Condenser Pty Ltd, 6 Clarice Road, Box Hill South, Vic. (89 0411)

Queensland: P. H. Phillips Pty Ltd, 458 Brunswick Street, Valley, Brisbane, Qld. (LW 2011)

South Australia: Wm. T. Matthews Ltd, 95 Grenfell Street, Adelaide, South Aust. (W 7021)

Western Australia: H. J. McQuillan Pty Ltd, 1017 Wellington Street West, Perth, W.A. (21 8911)

New Zealand: Ducon (NZ) Limited, PO Box 2630, Auckland, New Zealand. (5205)

STYROSEAL CAPACITORS TYPE DFB

YELLOW LABEL — 400 v DC Working — 140 v RMS AC Working

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 412	.001 µF	1/2	1/4	26
DFB 413	.0012 µF	1/2	1/4	26
DFB 414	.0015 µF	1/2	1/4	26
DFB 415	.0018 µF	1/2	1/4	26
DFB 416	.0022 µF	1/2	19/64	26
DFB 417	.0027 µF	1/2	19/64	26
DFB 418	.0033 µF	1/2	19/64	26
DFB 419	.0039 µF	1/2	21/64	26
DFB 420	.0047 µF	3/4	19/64	26
DFB 421	.0056 µF	3/4	21/64	26
DFB 422	.0068 µF	3/4	3/8	26
DFB 423	.0082 µF	3/4	25/64	26
DFB 424	.01 µF	3/4	13/32	26
DFB 425	.012 µF	3/4	7/16	26
DFB 426	.015 µF	3/4	15/32	26
DFB 427	.018 µF	3/4	31/64	26
DFB 428	.022 µF	3/4	37/64	26

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 429	.027 µF	1-	37/64	20
DFB 430	.033 µF	1-	9/16	20
DFB 431	.039 µF	1-	9/16	20
DFB 432	.047 µF	1-	5/8	20
DFB 433	.056 µF	1-	5/8	20
DFB 434	.068 µF	1-1/4	11/16	20
DFB 435	.082 µF	1-1/4	11/16	20
DFB 436	.1 µF	1-1/4	13/16	20
DFB 437	.12 µF	1-1/2	3/4	20
DFB 438	.15 µF	1-1/2	3/4	20
DFB 439	.18 µF	1-1/2	3/4	20
DFB 440	.22 µF	1-3/4	13/16	20
DFB 441	.27 µF	1-3/4	1-	20
DFB 442	.33 µF	2-1/4	1-	20
DFB 443	.39 uF	2-1/4	1-	20
DFB 444	.47 µF	2-1/4	1-	20
DFB 445	.56 µF	2-1/4	1-	20

BLUE LABEL — 600 v DC Working — 240 v RMS AC Working

DFB0633	33 pF	1/2	13/64	26
DFB0639	39 pF	1/2	13/64	26
DFB0647	47 pF	1/2	13/64	26
DFB0656	56 pF	1/2	13/64	26
DFB0668	68 pF	1/2	7/32	26
DFB0682	82 pF	1/2	7/32	26
DFB 600	100 pF	1/2	3/16	26
DFB 601	120 pF	1/2	3/16	26
DFB 602	150 pF	1/2	3/16	26
DFB 603	180 pF	1/2	13/64	26
DFB 604	220 pF	1/2	13/64	26
DFB 605	270 pF	1/2	7/32	26
DFB 606	330 pF	1/2	7/32	26
DFB 607	390 pF	1/2	7/32	26
DFB 608	470 pF	1/2	15/64	26
DFB 609	560 pF	1/2	1/4	26
DFB 610	680 pF	1/2	1/4	26
DFB 611	820 pF	1/2	17/64	26
DFB 612	.001 µF	1/2	1/4	26
DFB 613	.0012 µF	1/2	17/64	26
DFB 614	.0015 µF	1/2	9/32	26
DFB 615	.0018 µF	1/2	19/64	26
DFB 616	.0022 µF	1/2	5/16	26
DFB 617	.0027 µF	1/2	5/16	26
DFB 618	.0033 µF	3/4	5/16	26
DFB 619	.0039 µF	3/4	21/64	26

DFB 620	.0047 µF	3/4	23/64	26
DFB 621	.0056 µF	3/4	3/8	26
DFB 622	.0068 µF	3/4	13/32	26
DFB 623	.0082 µF	3/4	27/64	26
DFB 624	.01 µF	3/4	29/64	26
DFB 625	.012 µF	3/4	31/64	26
DFB 626	.015 µF	3/4	35/64	26
DFB 627	.018 µF	3/4	19/32	26
DFB 628	.022 µF	1-1/4	1/2	26
DFB 629	.027 µF	1-1/4	1/2	20
DFB 630	.033 µF	1-1/4	5/8	20
DFB 631	.039 µF	1-1/4	5/8	20
DFB 632	.047 µF	1-1/4	3/4	20
DFB 633	.056 µF	1-1/2	3/4	20
DFB 634	.068 µF	1-1/2	3/4	20
DFB 635	.082 µF	1-1/2	3/4	20
DFB 636	.1 µF	1-3/4	3/4	20
DFB 637	.12 µF	1-3/4	7/8	20
DFB 638	.15 µF	1-3/4	1-	20
DFB 639	.18 µF	1-3/4	1-1/16	20
DFB 640	.22 µF	1-3/4	1-1/8	20
DFB 641	.27 µF	2-1/4	1-1/8	20
DFB 642	.33 µF	2-1/4	1-3/16	20
DFB 643	.39 µF	2-1/4	1-1/4	20
DFB 644	.47 µF	2-1/4	1-3/8	20
DFB 645	.56 µF	2-1/4	1-1/2	20

WHITE LABEL

1000 v DC Working

350 v RMS AC Working

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 10033	33 pF	1/2	13/64	26
DFB 10039	39 pF	1/2	13/64	26
DFB 10047	47 pF	1/2	13/64	26
DFB 10056	56 pF	1/2	13/64	26
DFB 10068	68 pF	1/2	7/32	26
DFB 10082	82 pF	1/2	7/32	26
DFB 1000	100 pF	1/2	7/32	26
DFB 1001	120 pF	1/2	7/32	26
DFB 1002	150 pF	1/2	15/64	26
DFB 1003	180 pF	1/2	15/64	26
DFB 1004	220 pF	1/2	1/4	26
DFB 1005	270 pF	1/2	1/4	26
DFB 1006	330 pF	1/2	1/4	26
DFB 1007	390 pF	1/2	17/64	26
DFB 1008	470 pF	1/2	17/64	26
DFB 1009	560 pF	1/2	9/32	26
DFB 1010	680 pF	1/2	9/32	26
DFB 1011	820 pF	1/2	19/64	26
DFB 1012	.001 μF	3/4	19/64	26
DFB 1013	.0012 μF	3/4	19/64	26
DFB 1014	.0015 μF	3/4	5/16	26
DFB 1015	.0018 μF	3/4	21/64	26
DFB 1016	.0022 μF	3/4	23/64	26
DFB 1017	.0027 μF	3/4	3/8	26
DFB 1018	.0033 μF	3/4	25/64	26
DFB 1019	.0039 μF	3/4	7/16	26

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 1020	.0047 μF	3/4	7/16	26
DFB 1021	.0056 μF	3/4	15/32	26
DFB 1022	.0068 μF	3/4	33/64	26
DFB 1023	.0082 μF	3/4	35/64	26
DFB 1024	.01 μF	3/4	5/8	26
DFB 1025	.012 μF	1-1/4	9/16	20
DFB 1026	.015 μF	1-1/4	9/16	20
DFB 1027	.018 μF	1-1/4	5/8	20
DFB 1028	.022 μF	1-1/4	11/16	20
DFB 1029	.027 μF	1-1/2	11/16	20
DFB 1030	.033 μF	1-1/2	3/4	20
DFB 1031	.039 μF	1-1/2	3/4	20
DFB 1032	.047 μF	1-1/2	13/16	20
DFB 1033	.056 μF	1-3/4	13/16	20
DFB 1034	.068 μF	1-3/4	7/8	20
DFB 1035	.082 μF	1-3/4	1-	20
DFB 1036	.1 μF	1-3/4	1-1/8	20
DFB 1037	.12 μF	2-1/4	1-1/8	20
DFB 1038	.15 μF	2-1/4	1-3/16	20
DFB 1039	.18 μF	2-1/4	1-1/4	20
DFB 1040	.22 μF	2-1/4	1-5/16	20
DFB 1041	.27 μF	2-1/4	1-3/8	20
DFB 1042	.33 μF	2-1/4	1-1/2	20
DFB 1043	.39 μF	2-1/4	1-5/8	20
DFB 1044	.47 μF	2-1/4	1-3/4	20
DFB 1045	.56 μF	2-1/4	1-7/8	20

WHITE LABEL

2000 v DC Working

500 v RMS AC Working

Type	Capacitances	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 2012	.001 μF	3/4	21/64	26
DFB 2013	.0012 μF	3/4	23/64	26
DFB 2014	.0015 μF	3/4	3/8	26
DFB 2015	.0018 μF	3/4	3/8	26
DFB 2016	.0022 μF	3/4	13/32	26
DFB 2017	.0027 μF	3/4	29/64	26
DFB 2018	.0033 μF	3/4	31/64	26
DFB 2019	.0039 μF	3/4	33/64	26
DFB 2020	.0047 μF	3/4	9/16	26
DFB 2021	.0056 μF	1-1/4	15/32	26
DFB 2022	.0068 μF	1-1/4	1/2	26
DFB 2023	.0082 μF	1-1/4	17/32	26
DFB 2024	.01 μF	1-1/4	37/64	20

Type	Capacitances	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 2025	.012 μF	1-1/4	39/64	20
DFB 2026	.015 μF	1-1/4	21/32	20
DFB 2027	.018 μF	1-1/4	11/16	20
DFB 2028	.022 μF	1-1/4	23/32	20
DFB 2029	.027 μF	1-3/4	3/4	20
DFB 2030	.033 μF	1-3/4	7/8	20
DFB 2031	.039 μF	1-3/4	57/64	20
DFB 2032	.047 μF	1-3/4	31/32	20
DFB 2033	.056 μF	2-1/4	57/64	20
DFB 2034	.068 μF	2-1/4	1	20
DFB 2035	.082 μF	2-1/4	1-1/16	20
DFB 2036	.1 μF	2-1/4	1-1/8	20

BROWN LABEL

125 v DC Working

44 v RMS AC Working

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 0133	33 pF	1/4	3/16	30
DFB 0136	36 pF	1/4	3/16	30
DFB 0139	39 pF	1/4	3/16	30
DFB 0143	43 pF	1/4	3/16	30
DFB 0147	47 pF	1/4	3/16	30
DFB 0151	51 pF	1/4	3/16	30
DFB 0156	56 pF	1/4	3/16	30
DFB 0162	62 pF	1/4	3/16	30
DFB 0168	68 pF	1/4	3/16	30
DFB 0175	75 pF	1/4	3/16	30
DFB 0182	82 pF	1/4	3/16	30
DFB 0191	91 pF	1/4	3/16	30
DFB 100	100 pF	1/4	3/16	30
DFB 101	110 pF	3/8	5/32	30
DFB 102	120 pF	3/8	5/32	30
DFB 103	130 pF	3/8	5/32	30
DFB 104	150 pF	3/8	5/32	30
DFB 105	160 pF	3/8	5/32	30
DFB 106	180 pF	3/8	5/32	30

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 107	200 pF	3/8	5/32	30
DFB 108	220 pF	3/8	5/32	30
DFB 109	240 pF	3/8	5/32	30
DFB 110	270 pF	3/8	5/32	30
DFB 111	300 pF	3/8	5/32	30
DFB 112	330 pF	3/8	11/64	30
DFB 113	360 pF	3/8	11/64	30
DFB 114	390 pF	3/8	11/64	30
DFB 115	430 pF	3/8	3/16	30
DFB 116	470 pF	3/8	3/16	30
DFB 117	510 pF	1/2	3/16	30
DFB 118	560 pF	1/2	3/16	30
DFB 119	620 pF	1/2	3/16	30
DFB 120	680 pF	1/2	3/16	30
DFB 121	750 pF	1/2	7/32	30
DFB 122	820 pF	1/2	7/32	30
DFB 123	910 pF	1/2	7/32	30
DFB 124	.001 µF	1/2	15/64	30

RED LABEL

200 v DC Working

70 v RMS AC Working

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 212	.001 µF	1/2	7/32	26
DFB 213	.0012 µF	1/2	15/64	26
DFB 214	.0015 µF	1/2	17/64	26
DFB 215	.0018 µF	1/2	17/64	26
DFB 216	.0022 µF	1/2	9/32	26
DFB 217	.0027 µF	1/2	9/32	26
DFB 218	.0033 µF	1/2	19/64	26
DFB 219	.0039 µF	1/2	5/16	26
DFB 220	.0047 µF	3/4	9/32	26
DFB 221	.0056 µF	3/4	9/32	26
DFB 222	.0068 µF	3/4	19/64	26
DFB 223	.0082 µF	3/4	5/16	26
DFB 224	.01 µF	3/4	11/32	26
DFB 225	.012 µF	3/4	3/8	26
DFB 226	.015 µF	3/4	13/32	26
DFB 227	.018 µF	3/4	27/64	26
DFB 228	.022 µF	3/4	15/32	26

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 229	.027 µF	1-	7/16	20
DFB 230	.033 µF	1-	9/16	20
DFB 231	.039 µF	1-	9/16	20
DFB 232	.047 µF	1-	5/8	20
DFB 233	.056 µF	1-	5/8	20
DFB 234	.068 µF	1-1/4	11/16	20
DFB 235	.082 µF	1-1/4	11/16	20
DFB 236	.1 µF	1-1/4	13/16	20
DFB 237	.12 µF	1-1/2	3/4	20
DFB 238	.15 µF	1-1/2	3/4	20
DFB 239	.18 µF	1-1/2	3/4	20
DFB 240	.22 µF	1-3/4	13/16	20
DFB 241	.27 µF	1-3/4	1-	20
DFB 242	.33 µF	2-1/4	1-	20
DFB 243	.39 µF	2-1/4	1-	20
DFB 244	.47 µF	2-1/4	1-	20
DFB 245	.56 µF	2-1/4	1-	20

STYROSEAL CAPACITORS TYPE DFB

GREEN LABEL 50v DC Working

Type	Capacitance	Length in Inches	Diam. in Inches (Max.)	Leads (Brit.) SWG
DFB 0512	.001	1/2	13/64	30
DFB 0514	.0012	1/2	13/64	30
DFB 0516	.0015	1/2	13/64	30
DFB 0518	.0018	1/2	13/64	30
DFB 0520	.0022	1/2	7/32	30
DFB 0522	.0027	1/2	15/64	30
DFB 0524	.0033	1/2	1/4	30
DFB 0526	.0039	1/2	1/4	30
DFB 0528	.0047	1/2	17/64	30
DFB 0530	.0056	1/2	9/32	30
DFB 0532	.0068	1/2	9/32	30
DFB 0534	.0082	1/2	5/16	30
DFB 0536	.01	1/2	19/64	30
DFB 0538	.012	3/4	19/64	26
DFB 0540	.015	3/4	11/32	26
DFB 0542	.018	3/4	3/8	26
DFB 0544	.022	3/4	13/32	26
DFB 0546	.027	3/4	29/64	26
DFB 0548	.033	3/4	15/32	26
DFB 0550	.039	3/4	1/2	26
DFB 0552	.047	3/4	17/32	26
DFB 0554	.056	3/4	9/16	26
DFB 0556	.068	3/4	19/32	26
DFB 0558	.082	3/4	41/64	26
DFB 0560	.10	1–	3/4	20
DFB 0562	.12	1–	25/32	20
DFB 0564	.15	1–	13/16	20
DFB 0566	.18	1 1/4	51/64	20
DFB 0568	.22	1 1/2	13/16	20
DFB 0570	.27	1 1/2	27/32	20
DFB 0572	.33	1 1/2	7/8	20
DFB 0574	.39	1 1/2	29/32	20
DFB 0576	.47	1 3/4	1–	20
DFB 0578	.56	1 3/4	1 1/8	20
DFB 0580	.68	2 1/4	1 1/8	20
DFB 0582	.82	2 1/4	1 1/4	20
DFB 0584	1.0	2 1/4	1 3/8	20