

## Type BHV DC Filter Capacitor

The BHV Series Film Capacitor is engineered for high reliability, excellent long-term stability, and low-loss performance in demanding DC filtering and DC link applications. With self-healing property and the ability to replace electrolytic capacitors, this series offers superior performance in power converters and inverters. The UL94-V0 flame-retardant plastic case and epoxy resin sealing ensure maximum safety and durability.

### Features:

- High reliability and excellent long-term stability
- Low losses and excellent for high ripple current application
- Self-healing property
- Can replace the electrolytic capacitor
- Plastic case (UL94-V0), Epoxy resin sealing

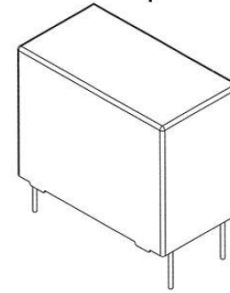
### Applications:

- DC Filtering / DC Link
- Used in the circuit of converter or inverter

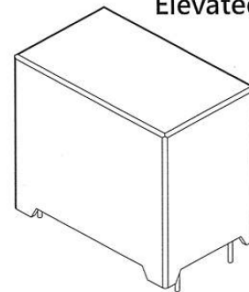
### General Specifications

Parameter	Value
Rated Voltage	500VDC to 1200VDC
Capacitance	0.68 $\mu$ F to 140 $\mu$ F (other rating upon request)
Tolerance	$\pm$ 5%, $\pm$ 10%, $\pm$ 20%
Temperature Range (operational)	-40°C to +85°C
Climatic Testing Class	40/105/56
Dielectric Strength	150% of rated DC voltage for 10 sec
Dissipation Factor	0.35% max at 1kHz 20 $\pm$ 3°C
Insulation Resistance	RC $\geq$ 10,000 Meg. Ohm x Mfd
Standards	UL810 (construction only)
Case	Flame retardant preformed case (UL94-V0)
Fill Material	Epoxy
Construction	Non-inductive metallized polypropylene

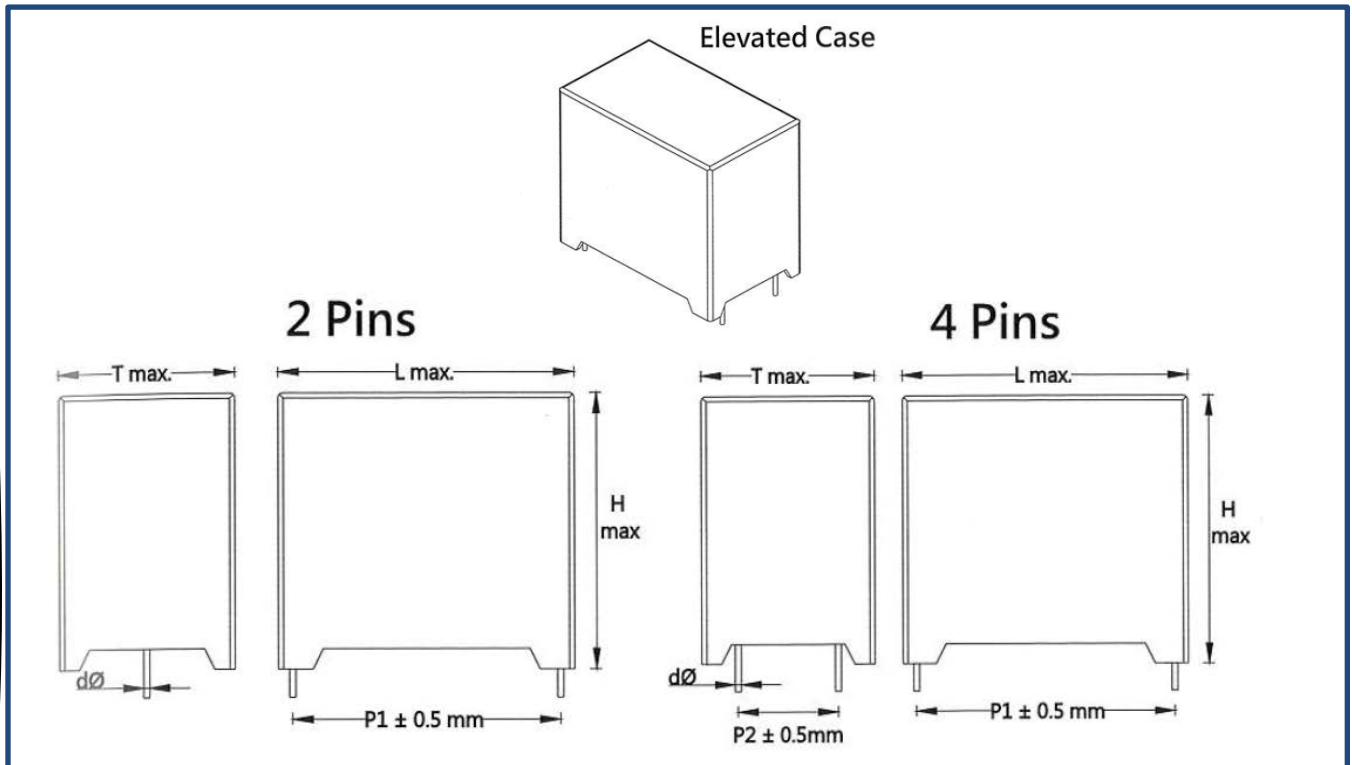
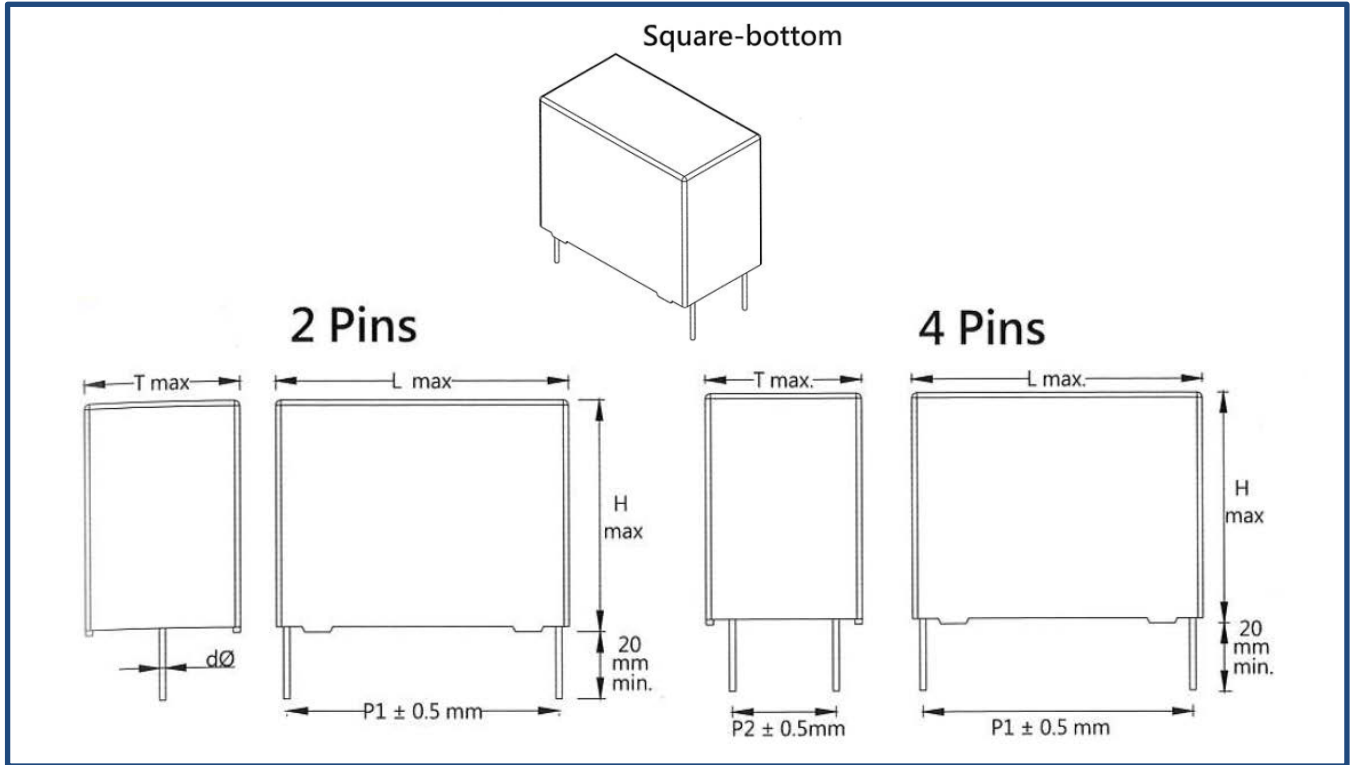
Square-bottom



Elevated Case



Outline Drawing



500VDC / 550VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
5	31.5	11.0	20.0	27.5	-	0.8	325	65
5	31.5	13.0	22.0	27.5	-	0.8	325	65
10	31.5	15.0	24.5	27.5	-	0.8	650	65
10	31.5	18.0	33.0	27.5	-	0.8	650	65
22	31.5	22.0	37.0	27.5	-	0.8	1430	65
30	41.5	20.0	38.0	37.5	10.2	1.0	900	30
35M	41.5	22.0	37.0	37.5	10.2	1.0	1050	30
40	41.5	30.0	45.0	37.5	20.3	1.0	1200	30
50	41.5	28.0	43.0	37.5	12.7	1.0	1500	30
50	41.5	30.0	45.0	37.5	20.3	1.0	1500	30
60M	41.5	30.0	45.0	37.5	20.3	1.0	1800	30
75	58.0	30.0	45.0	52.5	20.3	1.2	1125	15
80	58.0	30.0	45.0	52.5	20.3	1.2	1200	15
100	58.0	35.0	50.0	52.5	20.3	1.2	1500	15
110	58.0	35.0	50.0	52.5	20.3	1.2	1650	15
110	58.0	45.0	58.0	52.5	20.3	1.2	1650	15
130	58.0	35.0	60.0	52.5	20.3	1.2	1950	15
140	58.0	45.0	58.0	52.5	20.3	1.2	2100	15
140	58.0	45.0	65.0	52.5	20.3	1.2	2100	15

600 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
2	31.5	8.0	17.0	27.5	-	0.8	130	65
3	31.5	11.0	20.0	27.5	-	0.8	195	65
4	31.5	11.0	20.0	27.5	-	0.8	260	65
5	31.5	13.0	22.0	27.5	-	0.8	325	65
6	31.5	14.0	23.5	27.5	-	0.8	390	65
7	31.5	14.0	25.0	27.5	-	0.8	455	65
8	31.5	14.0	28.0	27.5	-	0.8	520	65
9	31.5	17.0	28.0	27.5	-	0.8	585	65
10	31.5	18.0	28.0	27.5	-	0.8	650	65
10	31.5	20.0	33.0	27.5	-	0.8	650	65
12	31.5	18.0	33.0	27.5	-	0.8	780	65
15	31.5	20.0	33.0	27.5	-	0.8	975	65
15	31.5	22.0	37.0	27.5	-	0.8	975	65

600 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
18	31.5	22.0	37.0	27.5	-	0.8	1170	65
10	41.5	16.0	28.5	37.5	-	1.0	300	30
12	41.5	16.0	28.5	37.5	-	1.0	360	30
15	41.5	17.0	30.0	37.5	-	1.0	450	30
20	41.5	20.5	34.0	37.5	10.2	1.0	600	30
22	41.5	22.5	35.5	37.5	10.2	1.0	660	30
25	41.5	24.0	44.0	37.5	10.2	1.0	750	30
30	41.5	24.0	44.0	37.5	10.2	1.0	900	30
30	41.5	26.0	39.0	37.5	12.7	1.0	900	30
35	41.5	27.5	41.0	37.5	12.7	1.0	1050	30
40	41.5	30.0	45.0	37.5	20.3	1.0	1200	30
40	41.5	33.0	45.0	37.5	20.3	1.0	1200	30
45	41.5	33.0	45.0	37.5	20.3	1.0	1350	30
50	41.5	33.0	45.0	37.5	20.3	1.0	1500	30
50	41.5	35.0	50.0	37.5	20.3	1.0	1500	30
55	41.5	35.0	50.0	37.5	20.3	1.0	1650	30
60	41.5	40.0	50.6	37.5	20.3	1.0	1800	30
65	41.5	40.0	50.6	37.5	20.3	1.0	1950	30
70	41.5	45.0	60.0	37.5	20.3	1.0	2100	30
75	41.5	45.0	60.0	37.5	20.3	1.0	2250	30
80	41.5	45.0	60.0	37.5	20.3	1.0	2400	30
85	41.5	45.0	60.0	37.5	20.3	1.0	2550	30
40	58	26.0	38.0	52.5	12.7	1.2	600	15
45	58	26.0	38.0	52.5	12.7	1.2	675	15
50	58	30.0	45.0	52.5	12.7	1.2	750	15
55	58	30.0	45.0	52.5	20.3	1.2	825	15
60	58	30.0	45.0	52.5	20.3	1.2	900	15
65	58	35.0	50.0	52.5	20.3	1.2	975	15
70	58	35.0	50.0	52.5	20.3	1.2	1050	15
75	58	35.0	50.0	52.5	20.3	1.2	1125	15
80	58	35.0	50.0	52.5	20.3	1.2	1200	15
85	58	43.0	53.0	52.5	20.3	1.2	1275	15
90	58	43.0	53.0	52.5	20.3	1.2	1350	15
95	58	43.0	53.0	52.5	20.3	1.2	1425	15
100	58	43.0	53.0	52.5	20.3	1.2	1500	15

600 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
110M	58	43.0	53.0	52.5	20.3	1.2	1650	15
110	58	45.0	58.0	52.5	20.3	1.2	1650	15
120	58	45.0	58.0	52.5	20.3	1.2	1800	15
130M	58	45.0	58.0	52.5	20.3	1.2	1950	15
140	58	45.0	65.0	52.5	20.3	1.2	2100	15

800 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
2	31.5	11.0	20.0	27.5	-	0.8	130	65
2	31.5	13.0	22.0	27.5	-	0.8	130	65
2.2	31.5	13.0	22.0	27.5	-	0.8	143	65
3	31.5	11.8	21.0	27.5	-	0.8	195	65
3.3	31.5	14.0	23.5	27.5	-	0.8	215	65
4	31.5	14.0	23.5	27.5	-	0.8	260	65
5	31.5	15.0	24.5	27.5	-	0.8	325	65
5	31.5	16.0	25.5	27.5	-	0.8	325	65
6	31.5	16.0	33.0	27.5	-	0.8	390	65
7	31.5	15.5	29.0	27.5	-	0.8	455	65
7	31.5	18.0	33.0	27.5	-	0.8	455	65
8	31.5	20.0	33.0	27.5	-	0.8	520	65
9	31.5	22.0	37.0	27.5	-	0.8	585	65
10	31.5	22.0	37.0	27.5	-	0.8	650	65
11	31.5	22.0	37.0	27.5	-	0.8	715	65
12	31.5	22.0	40.0	27.5	-	0.8	780	65
13	31.5	22.2	45.0	27.5	-	0.8	845	65
14	31.5	22.0	37.0	27.5	-	0.8	910	65
8	41.5	16.0	28.5	37.5	-	1.0	240	30
9	41.5	17.0	30.0	37.5	-	1.0	270	30
10	41.5	18.0	31.5	37.5	-	1.0	300	30
10	41.5	20.5	34.0	37.5	-	1.0	300	30
12	41.5	20.5	34.0	37.5	-	1.0	360	30
14	41.5	20.5	34.0	37.5	10.2	1.0	420	30

BHV

800 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
15	41.5	22.5	35.5	37.5	12.7	1.0	450	30
20	41.5	27.5	41.0	37.5		1.0	600	30
20	41.5	27.5	41.0	37.5	10.2	1.0	600	30
25	41.5	33.0	45.0	37.5	12.7	1.0	750	30
30	41.5	24.0	51.0	37.5	12.7	1.0	900	30
35	41.5	35.0	50.0	37.5	20.3	1.0	1050	30
40M	41.5	40.0	50.6	37.5	20.3	1.0	1200	30
45	41.5	45.0	60.0	37.5	20.3	1.0	1350	30
50	41.5	45.0	60.0	37.5	20.3	1.0	1500	30
55	41.5	45.0	60.0	37.5	20.3	1.0	1650	30
40	58.0	35.0	50.0	52.5	20.3	1.2	600	15
45	58.0	35.0	50.0	52.5	20.3	1.2	675	15
50M	58.0	35.0	50.0	52.5	20.3	1.2	750	15
55	58.0	38.0	53.0	52.5	20.3	1.2	825	15
60	58.0	43.0	53.0	52.5	20.3	1.2	975	15
65	58.0	43.0	53.0	52.5	20.3	1.2	975	15
70	58.0	45.0	58.0	52.5	20.3	1.2	1050	15
75	58.0	45.0	58.0	52.5	20.3	1.2	1125	15

900 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
1	31.5	8.0	17.0	27.5	-	0.8	70	70
1	31.5	9.0	18.0	27.5	-	0.8	70	70
2	31.5	11.8	21.0	27.5	-	0.8	140	70
3	31.5	14.0	23.5	27.5	-	0.8	210	70
4	31.5	16.0	25.5	27.5	-	0.8	280	70
5	31.5	18.0	28.0	27.5	-	0.8	350	70
6	31.5	18.0	33.0	27.5	-	0.8	420	70
7	31.5	20.0	33.0	27.5	-	0.8	490	70
8	31.5	22.0	37.0	27.5	-	0.8	560	70
9	31.5	22.0	40.0	27.5	-	0.8	630	70
4.7	41.5	16.0	28.5	37.5	-	1.0	164.5	35
5	41.5	16.0	28.5	37.5	-	1.0	175	35
6	41.5	16.0	28.5	37.5	-	1.0	210	35

900 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
7	41.5	17.0	30.0	37.5	-	1.0	245	35
8	41.5	18.0	31.5	37.5	-	1.0	280	35
10	41.5	20.5	34.0	37.5	10.2	1.0	350	35
10	41.5	22.0	37.0	37.5	10.2	1.0	350	35
12	41.5	22.0	37.0	37.5	10.2	1.0	420	35
15	41.5	26.0	39.0	37.5	12.7	1.0	525	35
18	41.5	27.5	41.0	37.5	12.7	1.0	630	35
20	41.5	30.0	45.0	37.5	12.7	1.0	700	35
25	41.5	30.0	51.0	37.5	20.3	1.0	875	35
30	41.5	40.0	50.6	37.5	20.3	1.0	1050	35
35	41.5	45.0	60.0	37.5	20.3	1.0	1225	35
40	41.5	45.0	60.0	37.5	20.3	1.0	1400	35
45	41.5	45.0	60.0	37.5	20.3	1.0	1575	35
50	41.5	45.0	60.0	37.5	20.3	1.0	1750	35
15	58.0	24.0	36.0	52.5	12.7	1.2	225	15
20	58.0	26.0	38.0	52.5	12.7	1.2	300	15
25	58.0	30.0	45.0	52.5	12.7	1.2	375	15
30	58.0	30.0	45.0	52.5	20.3	1.2	450	15
35	58.0	35.0	50.0	52.5	20.3	1.2	525	15
40	58.0	38.0	53.0	52.5	20.3	1.2	600	15
45	58.0	38.0	53.0	52.5	20.3	1.2	675	15
50	58.0	43.0	53.0	52.5	20.3	1.2	750	15
55	58.0	45.0	58.0	52.5	20.3	1.2	825	15
60	58.0	45.0	58.0	52.5	20.3	1.2	900	15
65	58.0	45.0	65.0	52.5	20.3	1.2	975	15
70	58.0	45.0	65.0	52.5	20.3	1.2	1050	15

1000 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
1	31.5	9.0	18.0	27.5	-	0.8	75	75
2	31.5	13.0	22.0	27.5	-	0.8	150	75
3	31.5	15.0	24.5	27.5	-	0.8	225	75
4	31.5	18.0	28.0	27.5	-	0.8	300	75
5	31.5	18.0	33.0	27.5	-	0.8	375	75

1000 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
6	31.5	20.0	33.0	27.5	-	0.8	450	75
7	31.5	22.0	37.0	27.5	-	0.8	525	75
5	41.5	16.0	28.5	37.5	-	1.0	185	37
6	41.5	18.0	31.5	37.5	-	1.0	222	37
7	41.5	20.5	34.0	37.5	-	1.0	259	37
8	41.5	20.5	34.0	37.5	-	1.0	296	37
10	41.5	24.0	44.0	37.5	12.7	1.0	370	37
12	41.5	24.0	44.0	37.5	12.7	1.0	444	37
15	41.5	30.0	45.0	37.5	12.7	1.0	555	37
18	41.5	33.0	45.0	37.5	20.3	1.0	666	37
20	41.5	33.0	45.0	37.5	20.3	1.0	740	37
15	58.0	24.0	36.0	52.5	12.7	1.2	255	17
20	58.0	30.0	45.0	52.5	12.7	1.2	340	17
25	58.0	30.0	45.0	52.5	12.7	1.2	425	17
30	58.0	35.0	50.0	52.5	20.3	1.2	510	17
35	58.0	38.0	53.0	52.5	20.3	1.2	595	17
40	58.0	43.0	53.0	52.5	20.3	1.2	680	17
45	58.0	45.0	58.0	52.5	20.3	1.2	765	17
50	58.0	45.0	58.0	52.5	20.3	1.2	850	17
55	58.0	45.0	65.0	52.5	20.3	1.2	935	17
60	58.0	45.0	65.0	52.5	20.3	1.2	1020	17

1100 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
0.68	31.5	8.0	17.0	27.5	-	0.8	54	80
1	31.5	11.0	20.0	27.5	-	0.8	80	80
1.5	31.5	11.8	21.0	27.5	-	0.8	120	80
2	31.5	14.0	25.0	27.5	-	0.8	160	80
3	31.5	16.0	33.0	27.5	-	0.8	240	80
4	31.5	18.0	33.0	27.5	-	0.8	320	80
5	31.5	20.0	33.0	27.5	-	0.8	400	80
5	31.5	22.0	37.0	27.5	-	0.8	400	80



1100 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
6	31.5	22.0	37.0	27.5	-	0.8	480	80
3	41.5	16.0	28.5	37.5	-	1.0	120	40
4	41.5	16.0	28.5	37.5	-	1.0	160	40
4.7	41.5	17.0	30.0	37.5	-	1.0	188	40
5	41.5	18.0	31.5	37.5	-	1.0	200	40
6	41.5	20.5	34.0	37.5	-	1.0	240	40
7	41.5	22.0	37.0	37.5	10.2	1.0	280	40
8	41.5	22.0	37.0	37.5	10.2	1.0	320	40
10	41.5	24.0	44.0	37.5	12.7	1.0	400	40
12	41.5	27.5	41.0	37.5	12.7	1.0	480	40
12	41.5	30.0	45.0	37.5	20.3	1.0	480	40
15	41.5	30.0	45.0	37.5	20.3	1.0	600	40
15	41.5	24.0	51.0	37.5	12.7	1.0	600	40
18	41.5	35.0	50.0	37.5	20.3	1.0	720	40
20	41.5	40.0	50.6	37.5	20.3	1.0	800	40
25	41.5	45.0	60.0	37.5	20.3	1.0	1000	40
30	41.5	45.0	60.0	37.5	20.3	1.0	1200	40
20	58.0	30.0	45.0	52.5	20.3	1.2	400	20
25	58.0	35.0	50.0	52.5	20.3	1.2	500	20
30	58.0	35.0	50.0	52.5	20.3	1.2	600	20
40	58.0	43.0	53.0	52.5	20.3	1.2	800	20
40	58.0	45.0	58.0	52.5	20.3	1.2	800	20

1200 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
1	31.5	11.0	20.0	27.5	-	0.8	90	90
2	31.5	14.0	25.0	27.5	-	0.8	180	90
2	31.5	15.0	24.5	27.5	-	0.8	180	90
3	31.5	16.0	33.0	27.5	-	0.8	270	90
4	31.5	20.0	33.0	27.5	-	0.8	360	90
5	31.5	22.0	37.0	27.5	-	0.8	450	90
3	41.5	16.0	28.5	37.5	-	1.0	135	45
4	41.5	16.0	28.5	37.5	-	1.0	180	45
5	41.5	18.0	31.5	37.5	-	1.0	225	45

1200 VDC								
CAP (MFD)	L (mm)	T (mm)	H (mm)	P1 (mm)	P2 (mm)	d (mm)	dV/dt (V/μs)	IPEAK (A)
6	41.5	20.5	34.0	37.5	-	1.0	240	40
7	41.5	22.0	37.0	37.5	10.2	1.0	315	45
8	41.5	22.0	37.0	37.5	12.7	1.0	360	45
9	41.5	22.0	37.0	37.5	12.7	1.0	405	45
10	41.5	24.0	44.0	37.5	12.7	1.0	450	45
12	41.5	30.0	45.0	37.5	20.3	1.0	540	45
15	41.5	30.0	45.0	37.5	12.7	1.0	675	45
12	58.0	24.0	36.0	52.5	12.7	1.2	276	23
15	58.0	26.0	38.0	52.5	12.7	1.2	345	23
20	58.0	30.0	45.0	52.5	20.3	1.2	460	23
25	58.0	35.0	50.0	52.5	20.3	1.2	575	23
30	58.0	38.0	53.0	52.5	20.3	1.2	690	23
35	58.0	38.0	54.0	52.5	20.3	1.2	805	23
35	58.0	43.0	53.0	52.5	20.3	1.2	805	23
40	58.0	45.0	58.0	52.5	20.3	1.2	920	23
40	58.0	45.0	65.0	52.5	20.3	1.2	920	23
45	58.0	45.0	65.0	52.5	20.3	1.2	1035	23

**Order Code Information:**

Type	Lead Style	Capacitance	Tolerance	Voltage
BHV	(2) = 2 Pins	7	10 = ±10%	500
	(4) = 4 Pins	↓		↓
		100		1200

Examples:	Order Code
Type BHV, 2 Pins, 15uF ±10%, 800 VDC	BHV(2) 15-10-800
Type BHV, 4 Pins, 45uF ±10%, 1100 VDC	BHV(4) 45-10-1100