ADVANCE COMPONENTS AND INSTRUMENTS PVT. LTD.
Mfrs. of PLASTIC FILM CAPACITORS & EMI NOISE FILTERS
Registered Office & Factory :
3A-3A/1, Belavadi Indl.Area, Mysore - 570 018. INDIA

Phone : +91 821 2402307, 2402301
E-mail : enquiries@advancecapacitors.com
advcaps@gmail.com
Website : www.advance-capacitors.com

An ISO 9001 & ISO 13485 Company
GSTIN : 29AABCA1720D1ZA

DZx series ADVANCE Dual IGBT Snubber capacitors

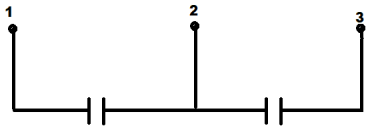
General Details

- ♦ Polypropylene Dielectric , Low Loss
- ♦ Self- Healing
- ♦ Flame Retardant UL94V0, RoHS compliant Housing
- ♦ Series Construction , high dv /dt rating
- ♦ Filled with thermosetting resin
- ♦ Snubber / Thyristor Protection
- ♦ High Pulse Applications
- ♦ Low ESR
- ♦ Voltage Ratings upto 2500Vdc
- ♦ Tolerance ±5%, ±10%

Specifications:

Temperature Range: -55°C to +100°C
Insulation Resistance : 5000 MΩ * µF
Test voltage between terminals: 1.5 x rated DC voltage for 10S
Test voltage between terminals & case: 3Kvac, 50Hz for 10S
Climatic Category : 55/100/56
Terminals : Tinned Copper Clips

Internal connection
- Capacitors in series



Marking details ADVANCE
Value(µF+µF), Tol. Code, Voltage rating
DZx Batch No. Type SL

Standard range:

Capacitance	Rated Voltage		Max. Current @100kHz, 70°C	dv/dt rating	Peak Current	Housing Dimensions, in mm			Drawing Reference
µF @1kHz	Vdc	Vac 50Hz	Irms, A	V/µS	Ipk, A	W	L	H	
0.10 + 0.10	2500	750	15	1000	100	20	80	40	DZ2 / DZ3
0.22 + 0.22	2000	600	17	1000	200	20	80	40	
0.33 + 0.33	2000	600	18	1000	330	20	80	40	
0.47 + 0.47	1500	500	19	1000	470	20	80	40	
0.68 + 0.68	1200	400	20	1000	680	20	80	40	
1.00 + 1.00	1000	350	20	1000	1000	20	80	40	
1.20 + 1.20	1000	350	22	1000	1200	20	80	40	
1.50 + 1.50	700	250	24	1000	1740	20	80	40	
1.70 + 1.70	700	250	24	1000	1740	20	80	40	
2.00 + 2.00	600	200	25	1000	2000	20	80	40	
3.00 + 3.00	700	250	28	700	2100	30	85	35	

Note: Other capacitance & current rating , terminals pitch, custom made capacitors available on request

Registered Office and Factory:

Advance Components and Instruments Pvt Ltd

3A-3A/1, Belavadi Industrial Area ,Mysore – 570018 KARNATAKA

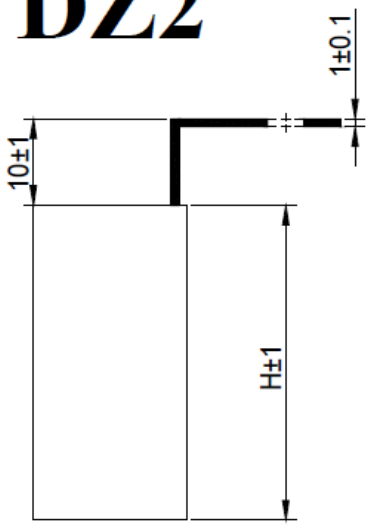
Mobile & WhatsApp: +91 8073111025

E-mail : **advcaps@gmail.com** / **enquiries@advancecapacitors.com**

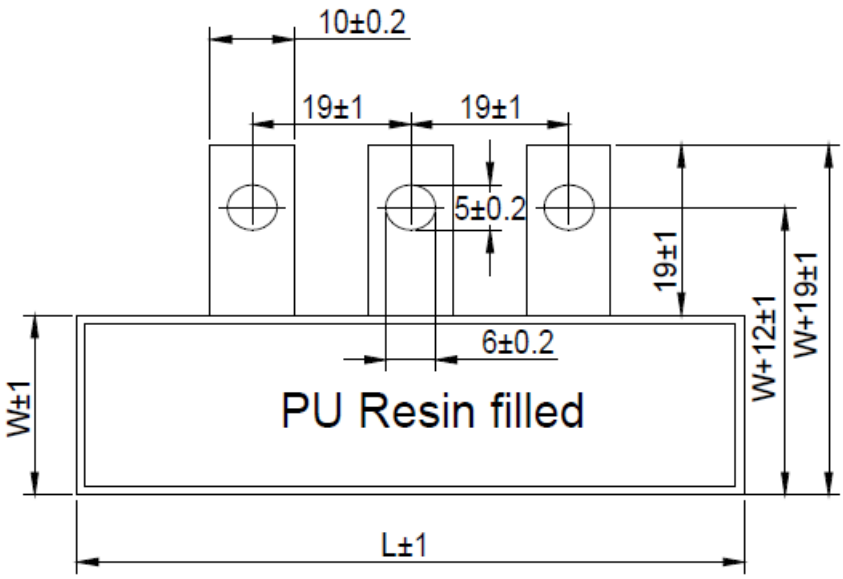
Website: www.advance-capacitors.com

Dimensional details (in mm, not to scale) Terminal Style SL type

DZ2

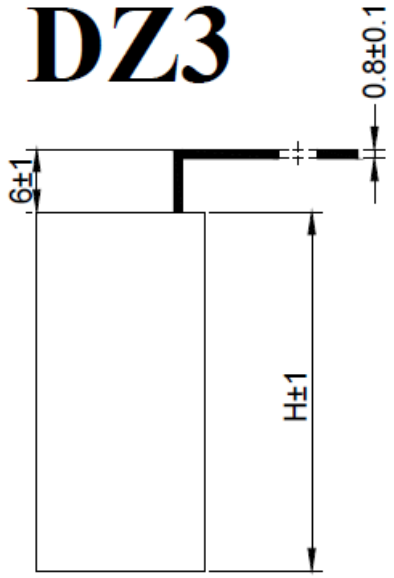


Side View

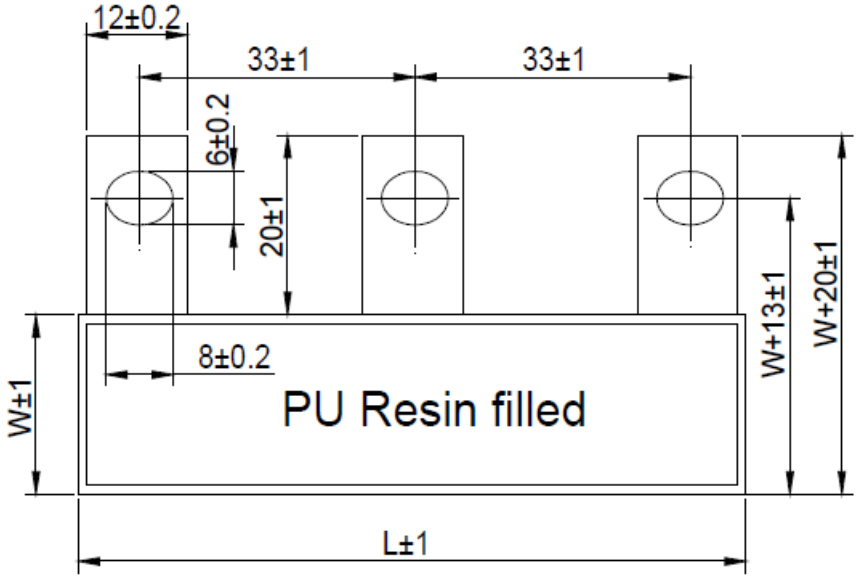


Top View

DZ3



Side View



Top View

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Website : www.advance-capacitors.com
An ISO 9001 & ISO 13485 Company
GSTIN : 29AABCA1720D1ZA

ADVANCE IGBT SNUBBER CAPACITORS

Advance snubber capacitors are made using internationally accepted series metallised technology for self-healing property. Metal foil electrodes are used for high peak current capacities. Capacitor elements are non-inductive and encapsulated in a plastic box and potted with epoxy resin for environmental protection.

GENERAL :

- Non Polar
- Low ESR, ESL
- High Insulation Resistance
- Self Healing
- Low Losses
- Suitable for High Frequencies
- available with UL grade Housing and Epoxy Resin

APPLICATIONS :

◆ IGBT module protection ◆ Thyristor protection ◆ High pulse applications

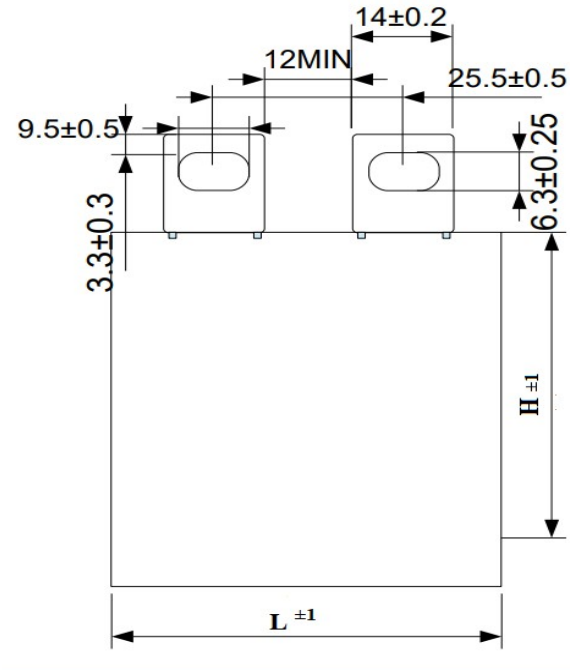
TYPE: **FKP-6M** IGBT Module direct mounting type

SPECIFICATIONS :

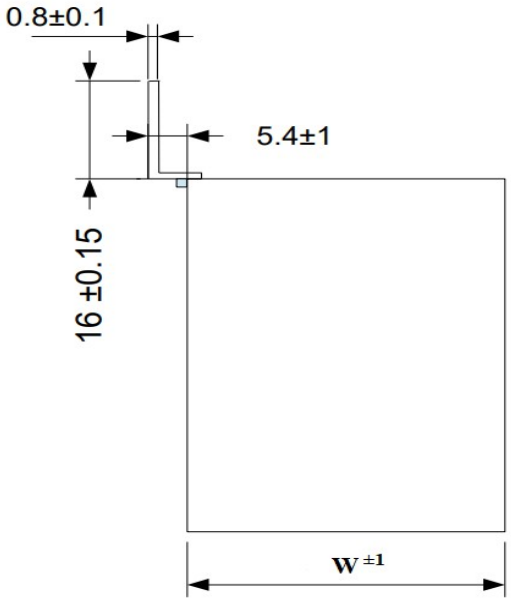
Temperature Range	:	-55 °C to +100 °C
Tan Delta	:	0.0005 at 1 KHz
Insulation Resistance	:	5,000 M Ω * µF
Test Voltage T/T	:	1.6 times rated dc voltage for 10 s
T/C	:	3 kVAC for 60 s
Climatic Category	:	40/85/56
Tolerance	:	±5%, ±10%, ±20%
Terminals	:	Tinned Copper Lugs

Dimensional details (in mm, not to scale):

Terminal Type RL

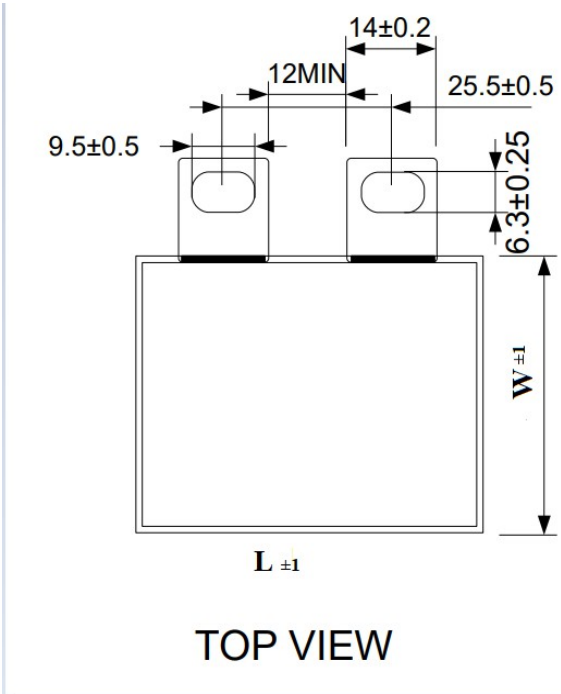


Back View

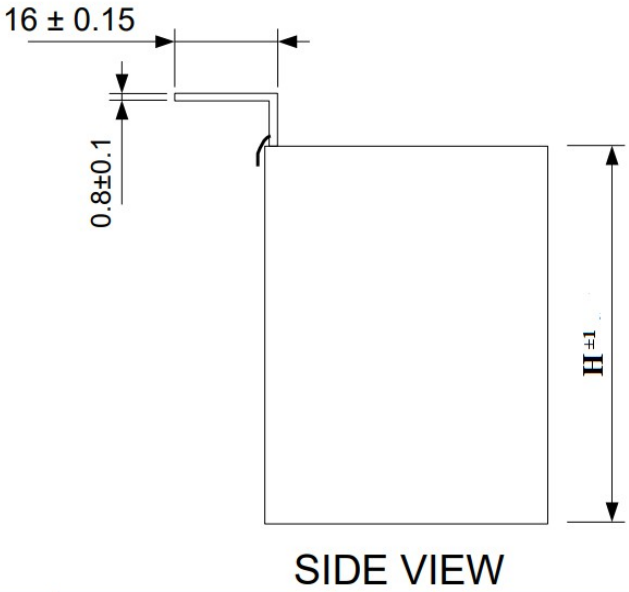


Side view

Terminal Type SL



TOP VIEW



SIDE VIEW

Standard range:

RATED VOLTAGE 850VDC / 450VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.68	2000	1360	15	5.00	19x36x43
0.82	2000	1640	17	4.50	19x36x43
1	2000	2000	19	4.00	19x36x43
1.5	1500	2250	24	3.80	19x36x43
1.75	1500	2625	26	2.80	24X38X48
2	1500	3000	29	2.50	24X38X48
2.2	1500	3300	30	2.30	24X38X48
2.5	1500	3750	30	2.20	30X45X45
3	1500	4500	25	2.00	30X45X45
3.3	1500	4950	26	2.00	30X45X45
4	1500	6000	30	2.00	43X50X54
4.7	1500	7050	33	2.00	43X50X54
5.6	1500	8400	31	2.00	43X50X54
6.3	1500	9450	37	2.00	35X50X57.5

RATED VOLTAGE 1000VDC / 480VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.1	2000	200	5.60	10.30	17x29x41.5
0.15	2000	300	5.70	10.00	17x29x41.5
0.22	2000	440	15.80	9.00	17x29x41.5
0.27	2000	540	18.70	8.00	17x29x41.5
0.33	2000	660	19.70	5.00	19x36x43
0.39	2000	780	20.60	5.00	19x36x43
0.47	2000	940	21.10	3.50	19x36x43
0.56	1500	840	21.30	3.30	19x36x43
0.68	1500	1020	21.30	2.80	24X38X48
0.75	1500	1125	25.60	2.80	24X38X48
0.82	1500	1230	26.00	2.80	24X38X48
1	1500	1500	26.00	2.60	24X38X48
1.2	1500	1800	26.00	2.40	24X38X48
1.5	1500	2250	26.00	2.40	30X45X45
1.75	1500	2625	27.00	2.40	30X45X45
2	1500	3000	28.20	2.30	30X45X45
2.2	1500	3300	28.50	2.20	30X45X45
2.5	1500	3750	29.49	2.00	43X50X54
3	1500	4500	30.00	2.00	43X50X54
3.3	1500	4950	30.00	2.00	43X50X54
4	1500	6000	30.00	2.00	35X50X57.5

RATED VOLTAGE 1250VDC / 630VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.1	2000	200	5.60	10.50	17x29x41.5
0.15	2000	300	5.70	10.50	17x29x41.5
0.22	2000	400	15.80	9.20	17x29x41.5
0.27	2000	540	18.70	8.00	17x29x41.5
0.33	2000	660	19.70	5.20	19x36x43
0.39	2000	780	20.60	2.80	19x36x43
0.47	2000	940	21.10	2.80	19x36x43
0.56	1500	840	21.30	2.80	19x36x43
0.68	1500	1020	21.30	2.80	24X38X48
0.75	1500	1125	25.60	2.80	24X38X48
0.82	1500	1230	26.00	2.40	24X38X48
1	1500	1500	26.00	2.40	24X38X48
1.2	1500	1800	26.00	2.40	24X38X48
1.5	1500	2250	26.00	2.40	30X45X45
2	1500	3000	28.20	2.20	30X45X45
2.2	1500	3300	28.50	2.20	30X45X45

RATED VOLTAGE 1500VDC / 650VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.1	2000	200	5.60	10.30	17x29x41.5
0.15	2000	300	5.70	10.00	17x29x41.5
0.22	2000	440	18.20	9.20	19x36x43
0.27	2000	540	18.70	5.80	19x36x43
0.33	2000	660	19.70	5.20	19x36x43
0.39	2000	780	20.60	5.20	19x36x43
0.47	2000	940	21.10	3.60	24X38X48
0.56	1500	840	21.30	3.40	24X38X48
0.68	1500	1020	21.30	2.80	24X38X48
0.75	1500	1125	25.60	2.60	24X38X48
0.82	1500	1230	26.00	2.60	24X38X48
1	1500	1500	26.00	2.50	30X45X45
1.2	1500	1800	26.00	2.20	30X45X45
1.5	1500	2250	26.00	1.80	43X50X54
2	1500	3000	28.20	1.80	43X50X54

RATED VOLTAGE 2000VDC / 700VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.1	2000	200	8.00	10.30	17x29x41.5
0.15	2000	300	10.00	9.20	17x29x41.5
0.22	2000	440	21.00	9.20	19x36x43
0.33	2000	660	22.00	5.20	19x36x43
0.39	2000	780	22.50	5.20	19x36x43
0.47	2000	940	24.00	3.60	19x36x43
0.56	1500	840	24.00	3.40	24X38X48
0.68	1500	1020	24.00	2.80	24X38X48
0.75	1500	1125	24.00	2.80	30X45X45
1	1500	1500	25.00	2.20	43X50X54
2	1500	3000	28.00	1.80	43X54X58

RATED VOLTAGE 2500VDC / 725VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.1	2000	200	9	15.00	19x36x43
0.15	2000	300	12	14.00	19x36x43
0.22	2000	440	15	12.00	19x36x43
0.33	2000	660	19	10.00	19x36x43
0.47	2000	940	23	10.00	19x36x43

RATED VOLTAGE 3000VDC / 750VAC

CAPACITANCE	dv/dt	Ipeak	Irms	Typical ESR	CASE DIMENSIONS IN MM
µF	V/µS	A	A	mΩ	(WXHXL)
0.047	2500	117.5	6	20.00	19x36x43
0.068	2500	170	8	20.00	19x36x43
0.1	2500	250	11	16.00	24X38X48
0.15	2500	375	14	15.00	24X38X48
0.22	2500	550	15	14.00	30X45X45
0.33	2500	825	17	13.00	30X45X45

Note: Other capacitance values and voltage ratings available on request

Registered Office and Factory:

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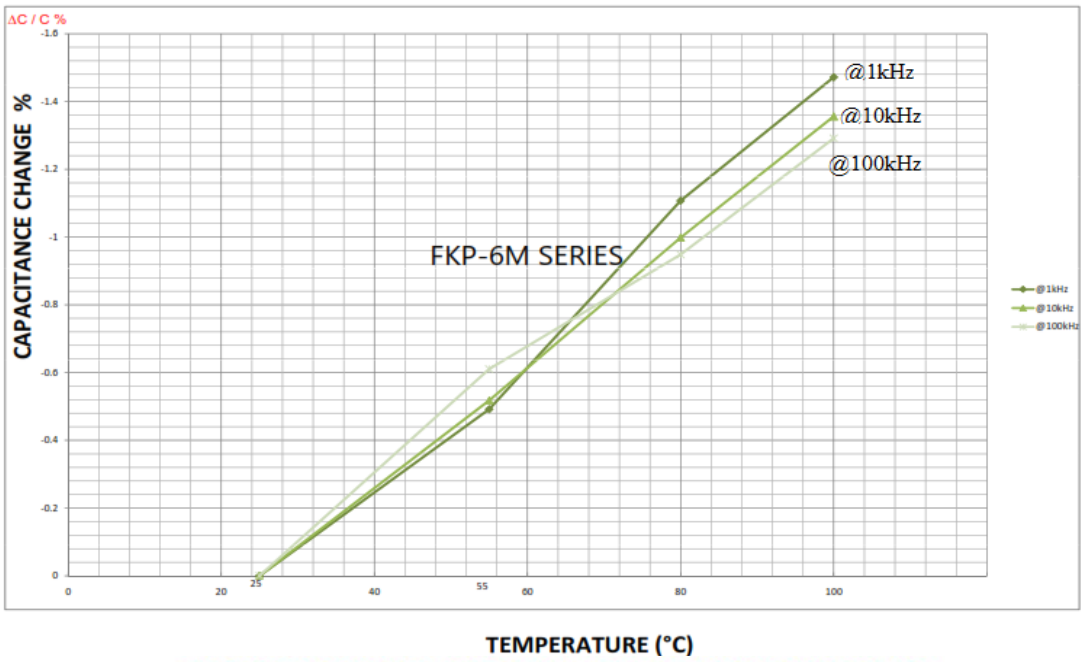
Mobile & WhatsApp: +91 8073111025

E-mail : **advcaps@gmail.com** / **enquiries@advancecapacitors.com**

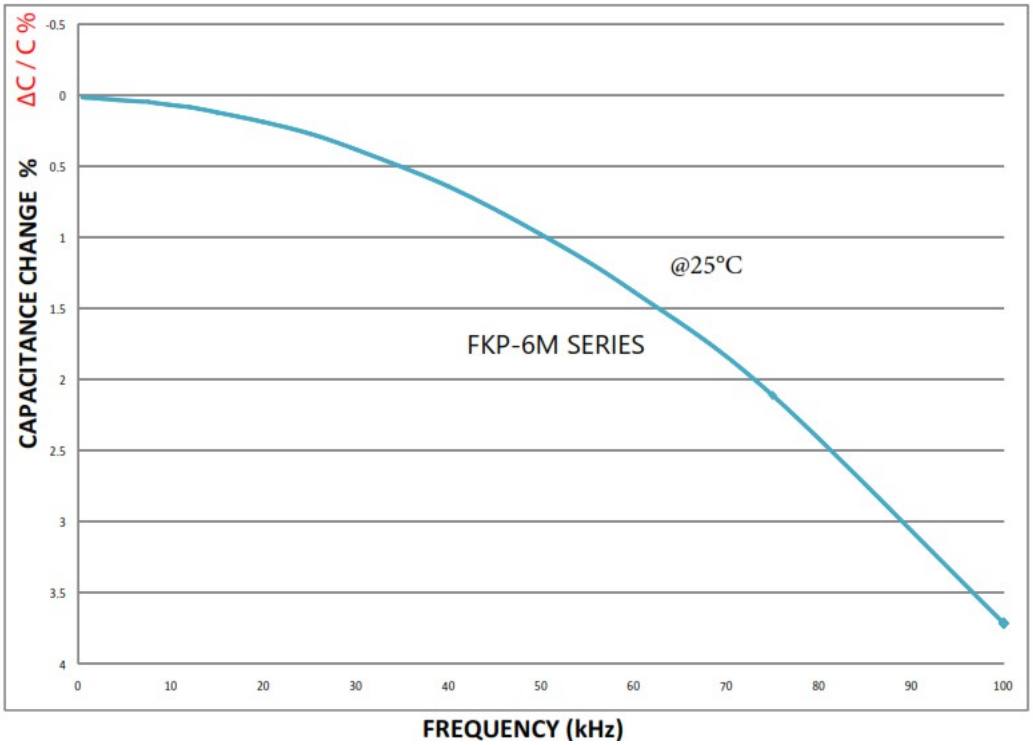
Website: www.advance-capacitors.com

Typical Graphs:

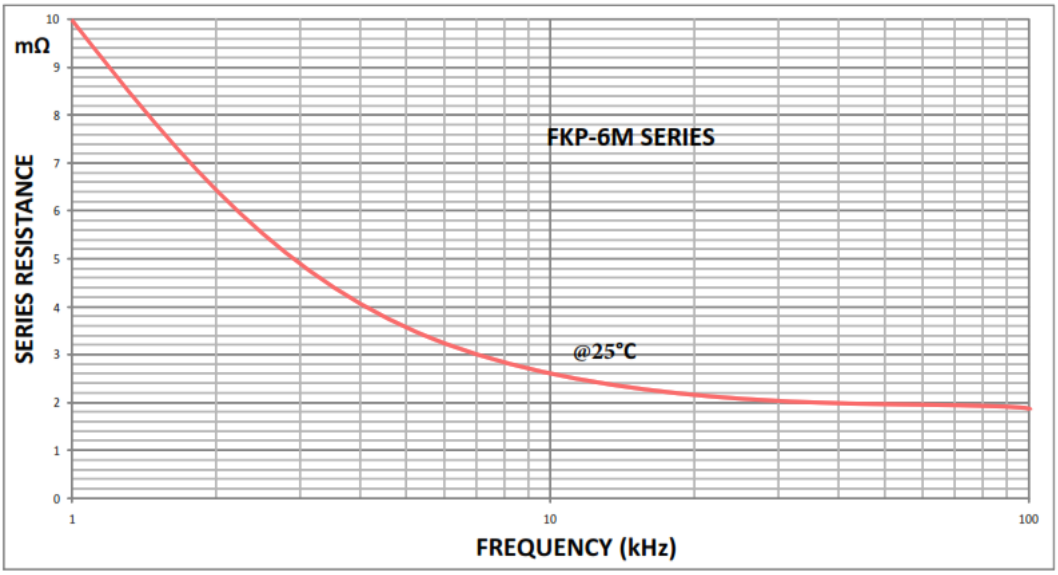
TYPICAL CAPACITANCE CHANGE VS TEMPERATURE GRAPH



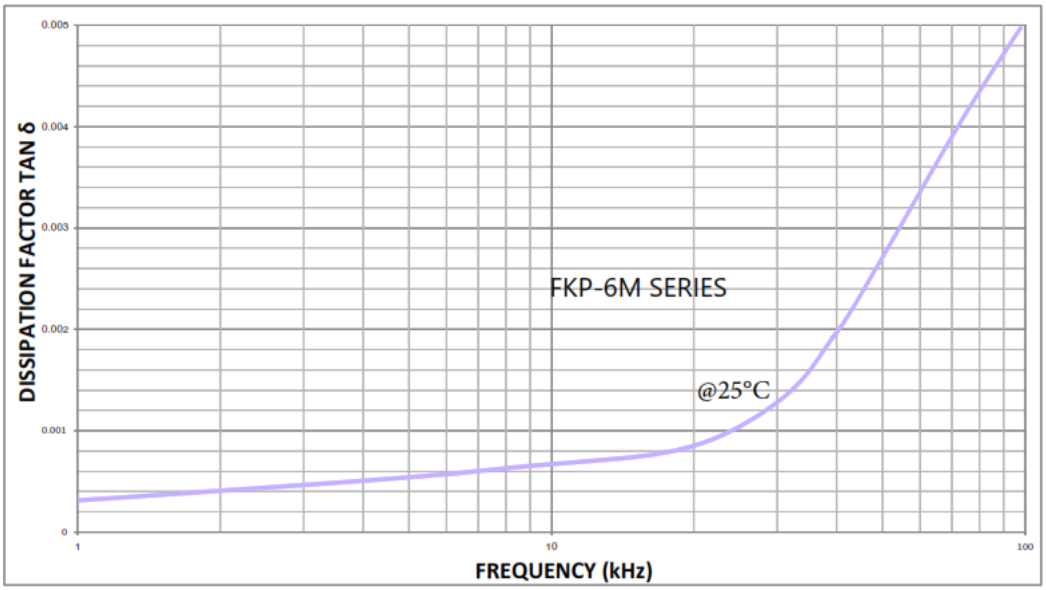
TYPICAL CAPACITANCE CHANGE VS FREQUENCY GRAPH



TYPICAL SERIES RESISTANCE VS FREQUENCY GRAPH



TYPICAL TAN δ VS FREQUENCY GRAPH



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ADVANCE Metallised Polypropylene series foil snubber Capacitors

GENERAL

- Non Polar
- Low Losses
- Low ESR, ESL
- High Insulation Resistance
- Suitable for High Frequencies
- Self Healing

Snubbers are high peak current capacitors used in power semiconductor circuits for energy conversion. And, they are used to suppress or attenuate high voltage peaks to protect semiconductor devices.

Advance snubber capacitors are made using internationally accepted series metallised technology for self-healing property. Aluminium foil electrodes are used for high peak current capacities. Capacitor elements are non-inductive and encapsulated in a yellow tape wrap end sealed with flame retardant thermosetting epoxy resin for environmental protection.

APPLICATIONS :

- IGBT Module Protection
- Energy Conversion in power electronics
- Thyristor protection
- High Pulse applications

TYPE: **FKP-7** Cylindrical, Tape wrap / wrap flat, Axial Lead

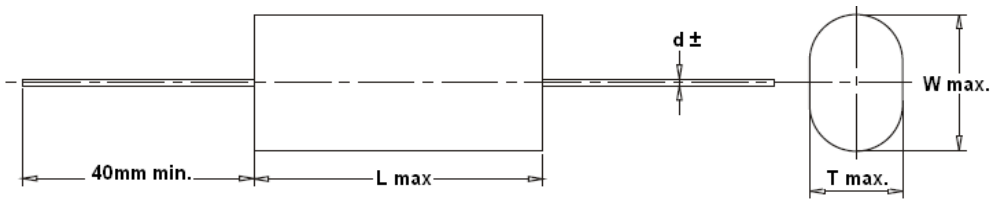
STANDARDS : IEC-384-14

SPECIFICATIONS :

Dielectric Film	: Polypropylene film + Al.Foil
Temperature Range	: -55 °C to +105 °C
Tan Delta (C < 1uf)	: ≤ 0.0005 @ 1kHz and 25°C
Insulation Resistance	: for C ≤ 0.33µF ≥100,000MΩ
at 100 V DC	: for C > 0.33µF ≥ 30,000MΩ
Test Voltage	: 1.6 times rated DC Voltage
Climatic Category	: 55/100/56
Voltage Derating	: 1.5% per C above 85°C
Tolerance	: ±5%, ±10%
Stability	: < 0.5% over 2 Years

Registered Office and Factory:
Advance Components and Instruments Pvt Ltd
3A-3A/1, Belavadi Industrial Area ,Mysore – 570018 KARNATAKA
Mobile & WhatsApp: +91 8073111025
E-mail : **advcaps@gmail.com** / **enquiries@advancecapacitors.com**
Website: www.advance-capacitors.com

Advance Polypropylene Series Foil Snubber Capacitors – FKP-7



Rated Voltage 850Vdc / 450Vac

Capacitance	T max	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.150	10.0	16.0	34.0	1.0	800	120	7.4	6
0.220	12.0	18.0	34.0	1.0	800	176	8.0	6
0.330	14.0	20.0	34.0	1.0	800	264	9.4	5
0.470	17.0	23.0	34.0	1.0	800	376	11.7	5
0.680	19.0	25.0	46.0	1.2	500	340	13.8	4
1.000	22.0	33.0	46.0	1.2	500	500	14.4	3
1.200	22.0	33.0	46.0	1.2	400	480	16.7	3
1.500	24.0	34.0	46.0	1.2	400	600	20.3	2

Rated Voltage 1000 Vdc / 500 Vac

Capacitance	T max	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.220	12.0	18.0	34.0	1.0	800	176	8.0	6
0.330	14.0	20.0	34.0	1.0	800	264	9.4	5
0.470	17.0	23.0	34.0	1.0	800	376	11.7	5
0.680	19.0	25.0	46.0	1.2	500	340	13.8	4
1.000	22.0	33.0	46.0	1.2	500	500	14.4	3
1.200	22.0	33.0	46.0	1.2	400	480	16.7	3
1.500	24.0	34.0	46.0	1.2	400	600	20.3	2

Rated Voltage 1600Vdc / 630Vac

Capacitance	Tmax	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.100	13.0	19.0	34.0	1.0	1100	110	9.0	7
0.150	16.0	21.0	34.0	1.0	1100	165	10.0	7
0.220	18.0	25.0	34.0	1.2	1100	242	12.0	7
0.330	17.0	23.0	46.0	1.2	900	297	12.0	7
0.470	21.5	28.5	46.0	1.2	900	423	13.8	6
0.680	23.5	34.0	46.0	1.2	900	612	14.5	6

Rated Voltage 2000 Vdc / 630Vac

Capacitance	Tmax	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.033	8.0	14.0	34.0	1.0	1200	40	4.8	19
0.047	9.0	16.0	34.0	1.0	1200	56	6.7	10
0.068	11.0	18.0	34.0	1.0	1200	81	7.9	8
0.100	14.0	20.0	34.0	1.0	1200	120	9.5	6
0.150	14.0	23.0	46.0	1.0	950	142	10.0	6
0.220	16.0	27.0	46.0	1.0	950	209	11.0	6
0.330	18.0	27.0	46.0	1.2	850	280	12.8	5
0.470	19.0	33.0	46.0	1.2	850	400	15.0	5

Rated Voltage 2500 Vdc / 750Vac

Capacitance	Tmax	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.033	9.2	16.0	34.0	1.0	1300	43	4.8	19
0.047	10.0	17.0	34.0	1.0	1300	61	6.5	10
0.068	12.0	19.0	34.0	1.0	1300	88	8.6	8
0.100	15.0	21.0	34.0	1.0	1300	130	9.8	6
0.150	15.0	24.0	46.0	1.0	1050	157	10.9	6
0.220	18.0	27.0	46.0	1.0	950	209	11.2	6
0.330	19.0	33.0	46.0	1.2	950	313	13.5	5

Rated Voltage 3000 Vdc / 750Vac

Capacitance	Tmax	W max	L max	d	dv/dt , V/µS	I Peak, A	Irms max at 100kHz , A	ESR @ 100kHz, mΩ
0.015	8.5	15.5	34.0	1.0	1500	22	3.0	35
0.022	9.2	16.0	34.0	1.0	1500	33	4.2	22
0.033	10.0	17.0	34.0	1.0	1500	49	6.1	12
0.047	12.0	19.0	34.0	1.0	1200	56	6.8	12
0.068	14.0	21.0	46.0	1.0	1200	81	7.9	10
0.100	15.0	24.0	46.0	1.2	1200	120	9.3	8
0.150	18.0	27.0	46.0	1.2	1200	180	12.0	6

ADVANCE COMPONENTS
AND INSTRUMENTS PVT. LTD.
Mfrs. of PLASTIC FILM CAPACITORS & EMI NOISE FILTERS
Registered Office & Factory :
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Phone : +91 821 2402307, 2402301
E-mail : enquiries@advancecapacitors.com
advcaps@gmail.com
Website : www.advance-capacitors.com
An ISO 9001 & ISO 13485 Company
GSTIN : 29AABCA1720D1ZA

Metallised Polypropylene Snubber capacitors-FKP6

GENERAL

- Non Polar
- Low Losses
- Low ESR, ESL
- High Insulation Resistance
- Suitable for High Frequencies
- Self Healing

Snubbers are high peak current capacitors used in power semiconductor circuits for energy conversion. And, they are used to suppress or attenuate high voltage peaks to protect semiconductor devices.
Advance snubber capacitors are made using internationally accepted series metallised technology for self-healing property. Aluminium foil electrodes are used for high peak current capacities. Capacitor elements are non-inductive and encapsulated in a yellow tape wrap end sealed with flame retardant thermosetting epoxy resin for environmental protection.

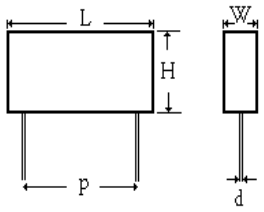
APPLICATIONS :

- IGBT Module Protection
- Energy Conversion in power electronics
- Thyristor protection
- High Pulse applications

TYPE: **FKP-6** Radial box type **STANDARDS** : IEC-384-14

SPECIFICATIONS :

Dielectric Film : Polypropylene film + Aluminium Foil
Temperature Range : -55 °C to +105 °C
Tan Delta (C < 1uf) : ≤ 0.0005 @ 1kHz and 25°C
Insulation Resistance : ≥ 5000MΩ*µF
Test Voltage : 1.6 times rated DC Voltage
Climatic Category : 55/100/56
Voltage Derating : 1.5% per C above 85°C
Tolerance : ±5%, ±10%
Stability : < 0.5% over 2 Years
Terminals : Tinned copper leads (PCB mounting application)



No	Description	Ipeak A	Dv/dt V/µS	Dimensions W*L*H*PITCH
1	0.0010µF 2000vDC/750VAC ±10%	≥13	13000	6*12*18*15.2
2	0.0022µF 2000vDC/750VAC ±10%	≥28	13000	6*12*18*15.2
3	0.0047µF 2000vDC/750VAC ±10%	≥61	13000	7.5*18*14*15.2
4	0.0068µF 2000VDC/750VAC ±10%	≥ 81	13000	8.5*18*14.5*15.2
5	0.0100µF 2000VDC/750VAC ±10%	≥ 60	6000	11*32*21*27.5
6	0.0220µF 2000VDC/750VAC ±10%	≥ 132	6000	11*32*21*27.5
7	0.0470µF 2000VDC/750VAC ±10%	≥ 282	6000	11*32*21*27.5
8	0.0680µF 2000VDC/750VAC ±10%	≥ 400	6000	11*32*21*27.5