

## ADVANCE Dual IGBT Snubber capacitors DZS series

### General Details

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

### Specifications:

Temperature Range:  $-55^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$

Insulation Resistance :  $5000 \text{ M}\Omega * \mu\text{F}$

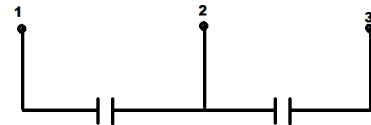
Test voltage between terminals:  $1.5 \times$  rated DC voltage for 10S

Test voltage between terminals & case:  $3\text{Kvac}$ , 50Hz for 10S

Climatic Category : 40/85/56

Terminals : Tinned Copper Clips

### Internal connection - Capacitors in series



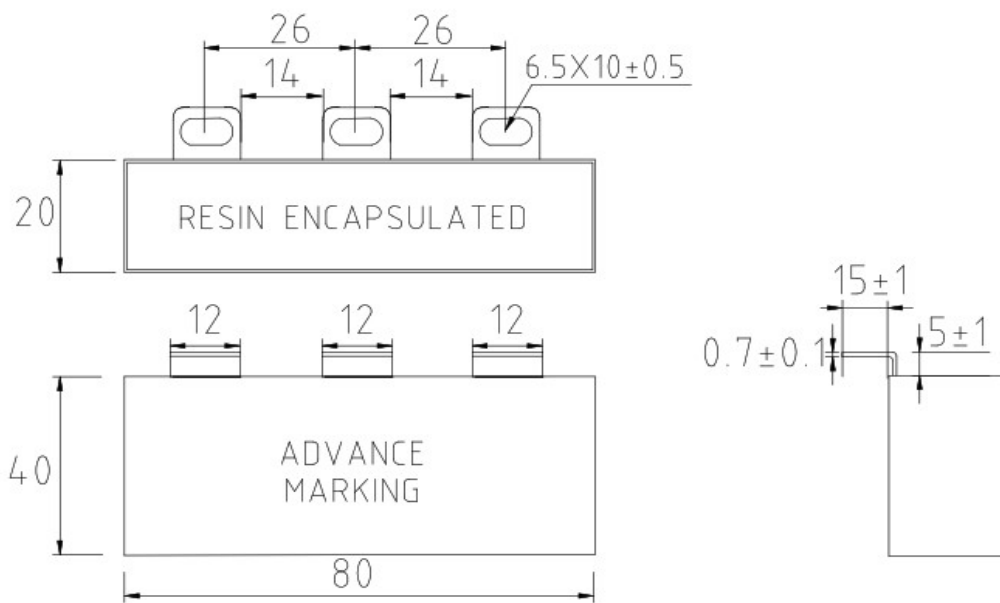
**Standard range:**

Capacitance	Rated Voltage		Max. Current @100kHz, 70°C	dv/dt rating	Peak Current				Terminal Style
	Vdc	Vac 50Hz	Irms, A	V/μS	Ipk, A	W ±1	L ±1	H ±1	
0.10 + 0.10	2500	750	15	1000	100	20	80	40	SL
0.22 + 0.22	2000	600	17	1000	200	20	80	40	SL
0.33 + 0.33	2000	600	18	1000	330	20	80	40	SL
0.47 + 0.47	1500	500	19	1000	470	20	80	40	SL
0.68 + 0.68	1200	400	20	1000	680	20	80	40	SL
1.00 + 1.00	1000	350	20	1000	1000	20	80	40	SL
1.20 + 1.20	1000	350	22	1000	1200	20	80	40	SL
1.70 + 1.70	700	250	24	1000	1740	20	80	40	SL
2.00 + 2.00	600	200	25	1000	2000	20	80	40	SL

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

**Dimensional details (in mm, not to scale)**

**Terminal Style SL type**



GENERAL TOLERANCE ±1MM

**Registered Office and Factory:**

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

### APPLICATIONS :

- ◆ IGBT module protection
- ◆ Thyristor protection
- ◆ High pulse applications

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

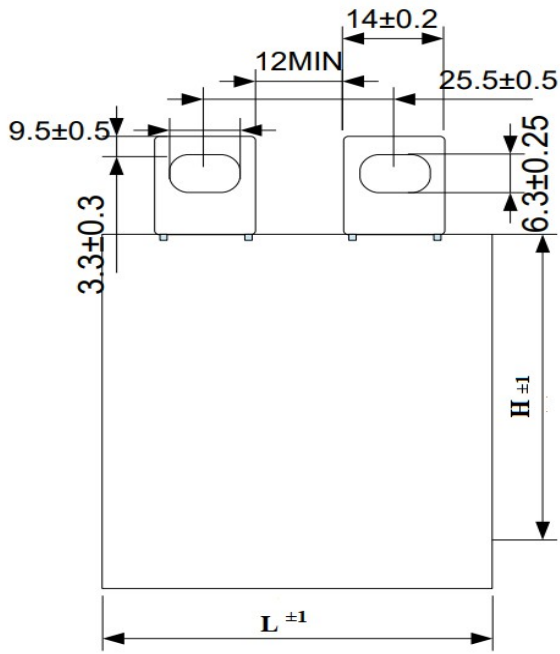
### SPECIFICATIONS :

Temperature Range : -55 °C to +100 °C  
Tan Delta : 0.0005 at 1 KHz  
Insulation Resistance : 5,000 M  $\Omega$  \*  $\mu$ F  
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 :  $\pm$ 5%,  $\pm$ 10%,  $\pm$ 20%  
Terminals : Tinned Copper Lugs

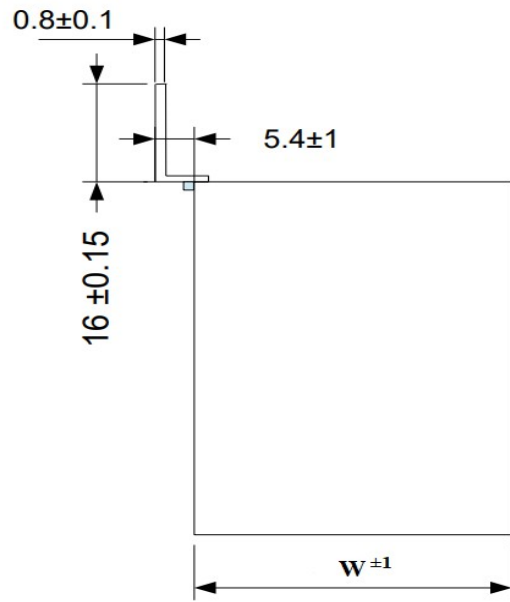


Dimensional details (in mm, not to scale):

### Terminal Type RL

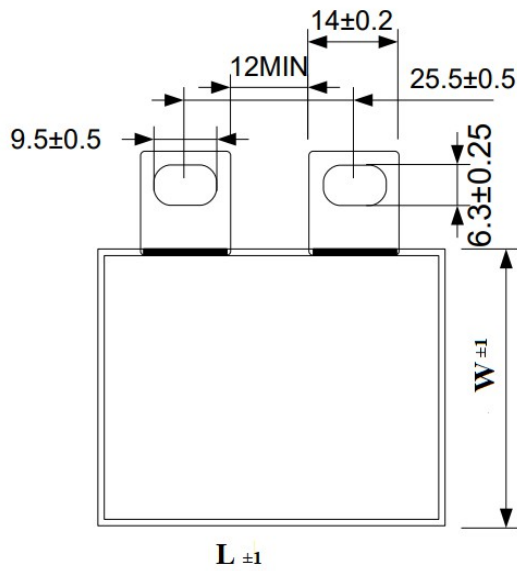


Back View

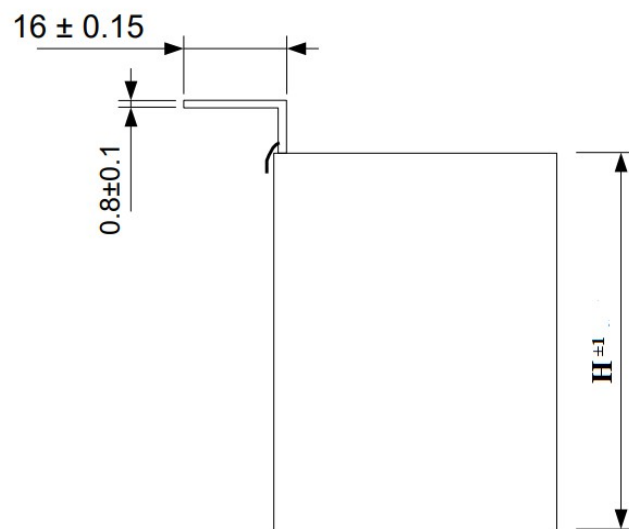


Side view

### Terminal Type SL



TOP VIEW



SIDE VIEW

## Standard range:

### RATED VOLTAGE 700VDC / 420VAC

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
1.0	600	600	15	3.3	18X36X43
1.2	600	720	17	3.3	18X36X43
1.5	600	900	20	3.0	18X36X43
2.0	600	1200	24	2.8	24X38X48
2.2	600	1320	25	2.8	24X38X48
2.5	600	1500	27	2.4	30X45X45
3.0	400	1200	24	2.2	30X45X45
3.3	400	1320	25	2.2	30X45X45
3.5	400	1400	26	2.0	43X50X54
4.0	400	1600	28	2.0	43X50X54
4.7	400	1880	31	2.0	43X50X54
5.0	400	2000	32	2.0	43X50X54
5.6	400	2240	34	2.0	43X50X54
6.3	400	2520	37	2.0	35X50X57.5

### RATED VOLTAGE 850VDC / 500VAC

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.68	750	510	15	5.0	18X36X43
0.82	750	615	17	4.5	18X36X43
1.00	750	750	19	4.0	18X36X43
1.50	750	1125	24	3.8	18X36X43
1.75	750	1312.5	26	2.8	24X38X48
2.00	750	1500	29	2.5	24X38X48
2.20	750	1650	30	2.3	24X38X48
2.50	750	1875	30	2.2	30X45X45
3.00	450	1350	25	2.0	30X45X45
3.30	450	1485	26	2.0	30X45X45
4.00	450	1800	30	2.0	43X50X54
4.70	450	2115	33	2.0	43X50X54
5.60	350	1960	31	2.0	43X50X54

**RATED VOLTAGE 1000VDC / 575VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.47	860	404.2	13	7.0	18X36X43
0.68	860	584.8	16	6.0	24.5X27.5X42.5
0.75	860	645	17	5.5	24.5X27.5X42.5
1.00	860	860	21	4.0	24.5X27.5X42.5
1.20	860	1032	23	4.0	24.5X27.5X42.5
1.50	860	1290	26	3.8	24X38X48
1.75	860	1505	29	3.8	24X38X48
2.00	860	1720	31	3.5	30X45X45
2.20	750	1650	30	3.0	30X45X45
2.50	750	1875	32	3.0	43X50X54
3.00	400	1200	25	3.0	43X50X54
3.30	400	1320	27	3.0	43X50X54
4.00	400	1600	30	3.5	35X50X57.5

**RATED VOLTAGE 1250VDC / 630VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.33	1000	330	11	7.0	18X36X43
0.39	1000	390	13	7.0	18X36X43
0.47	1000	470	14	7.0	18X36X43
0.56	1000	560	16	6.5	18X36X43
0.68	1000	680	18	6.5	18X36X43
0.82	1000	820	20	6.0	24X38X48
1.00	1000	1000	23	4.0	24X38X48
1.20	1000	1200	25	3.5	24X38X48

**RATED VOLTAGE 1500VDC / 650VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.22	1200.00	264.00	11.00	8.00	18X36X43
0.33	1200.00	396.00	14.00	8.00	18X36X43
0.39	1200.00	468.00	15.00	7.50	18X36X43
0.47	1200.00	564.00	17.00	7.00	18X36X43
0.68	1200.00	816.00	21.00	7.00	18X36X43
0.75	1200.00	900.00	22.00	6.00	24X38X48
1.00	1200.00	1200.00	26.00	3.00	24X38X48
1.20	700.00	840.00	21.00	3.00	30X45X45

**RATED VOLTAGE 2000VDC / 700VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.10	1500	150	8	15.0	18X36X43
0.15	1500	225	12	14.0	18X36X43
0.22	1500	330	13	12.0	18X36X43
0.33	1500	495	13	10.0	18X36X43
0.39	1500	585	14	10.0	18X36X43
0.47	1500	705	16	8.0	24X38X48
0.56	1500	840	18	6.0	24X38X48
0.68	1500	1020	21	6.0	24X38X48
1.00	1500	1500	27	6.0	43X50X54

**RATED VOLTAGE 2500VDC / 725VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.10	2000	200	9	15.0	18X36X43
0.15	2000	300	12	14.0	18X36X43
0.22	2000	440	15	12.0	18X36X43
0.33	2000	660	19	10.0	18X36X43
0.47	2000	940	23	10.0	18X36X43

**RATED VOLTAGE 3000VDC / 750VAC**

CAPACITANCE $\mu\text{F}$	dv/dt $\text{V}/\mu\text{S}$	I <sub>peak</sub> , A	I <sub>rms</sub> , A	Typical ESR m $\Omega$	CASE DIMENSIONS IN MM (WXHXL)
0.047	2500	117.5	6	20.0	18X36X43
0.068	2500	170	8	20.0	18X36X43
0.100	2500	250	11	16.0	24X38X48
0.150	2500	375	14	15.0	24X38X48
0.220	2500	550	15	14.0	30X45X45
0.330	2500	825	17	13.0	30X45X45

**Note: Other capacitance values and voltage ratings available on request**

**Registered Office and Factory:**

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