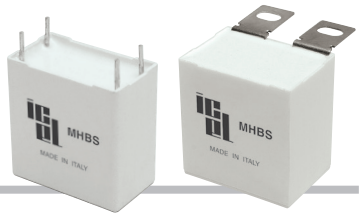
MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Main applications
DC-Link, switching capacitor for industrial and motor speed controls, SMPS, solar inverters, power converters and UPS, AC output filtering, suitable for AC (not for across the line) applications

Main characteristic
High voltage and high capacitance in small size with long life expectancy, high current and high frequency operation capability

Dielectric
Polypropylene

Electrodes
Vacuum deposited metal layers

Coating
Solvent resistant plastic case with resin sealing (UL 94 V-0). Flame retardant execution

Construction
Extended metallized film (refer to General Technical Information)

Terminals
Tinned copper wire (lead-free). 2, 4 or 6x terminals or tinned copper (brass) lug terminals (lead-free) execution (please refer to article table)

Degree of protection
IP00

Installation
Whatever position assuring correct heat dissipation. Arrangement of many components with box walls in contact not admitted; suggested minimum distance between side by side elements ≥ 1/8 of the box thickness (B size). Box with lugs terminals must be free to correctly dissipate from all the body faces

Reference standard
IEC 61071, IEC 60068, RoHS compliant

Climatic category
40/85/56 (IEC 60068/1), GPD (DIN40040)
Please refer also to paragraph C10 (humid ambient) of the General Technical Information

Operating temperature range (case)
-40°...+85°C (+100°C observing voltage and current de-rating)

Max. permissible ambient temperature (operation at rated power, rated current and natural cooling)
+70°C (+85°C observing voltage and current de-rating); at Tamb > +95°C superimposed Irms not admitted (Irms= 0 at Tamb> +95°C)

Nominal Capacitance (Cn) µF
0,68 µF to 100 µF. Refer to article table

Capacitance tolerance (at 1kHz)
±10% (code=K), ±5% (code=J). Other tolerances upon request

Capacitance temperature coefficient
Refer to General Technical Information

Long term stability (at 1kHz)
Capacitance variation ≤ ±1% after a period of 2 years at standard environmental conditions

Rated voltage (Ur) (Vdc) at T = +85°C, case (continuous operation)
575, 700, 800, 900, 1000, 1100, 1275 Vdc

Temperature de-rated voltage and current
For operating temperature (case)> +85°C, Ur, Urms, Upkr and Upk must be decreased 1.5% for every °C exceeding +85°C. For current de-rating please also refer to the ΔT/Tamb data in function of the applied Irms listed in the article table

Permissible AC voltage (Urms) (Vac) at T = +85°C, case (continuous operation)
240, 285, 315, 350, 400, 420, 440 Vac

Max. admissible voltage at T = +70°C, case (continuous operation)
Please refer to the article table

Max. repetitive peak voltage (Upkr), total max 1 hour/day
Up to case T = +85°C max.
660, 805, 920, 1035, 1150, 1265, 1465 Vdc
Up to case T = +70°C max.
720, 885, 1010, 1150, 1265, 1380, 1610 Vdc

Non recurrent surge voltage (Upk)
Up to case T = +85°C max.
750, 910, 1040, 1170, 1300, 1430, 1655 Vdc
Up to case T = +70°C max.
815, 1000, 1140, 1300, 1430, 1560, 1820 Vdc

Self inductance
≤ 1nH/mm of fixing pitch

Maximum pulse rise time V/µs
Refer to article table

Maximum peak current (Ipeak)
Refer to article table. Max. non repetitive Ipk = 1,5 x Ipeak

RMS current (Irms)
Refer to article table. No superimposed Irms must be applied at Tamb > +95°C (at Tamb > +95°C Irms must be = 0)

Dissipation factor (DF), max.
tgδ x10^{-4}, measured at 25 ±5°C, 1 kHz

Cn ≤ 4 µF	6
4 µF < Cn ≤ 12 µF (P ≤ 37,5 mm)	8
12 µF (P ≤ 37,5 mm) < Cn ≤ 20 µF	11
20 µF < Cn ≤ 40 µF	14
40 µF < Cn ≤ 75 µF	18
Cn > 75 µF	22

Insulation resistance (R_{INS})
≥ 3000s (10000s typical) but need not exceed 3 GΩ, between terminals, at ±25°C, after 1 minute of electrification at 100 Vdc

Test voltage between terminals (Ut)
1,5xUr (DC) or 1,5xUrms (AC) applied for 10s, at 25 ±5°C

Test voltage between terminals and case (Utc)
3kV 50÷60Hz applied for 60s at 25 ±5°C

Damp heat test (steady state)

Test conditions:
Temperature = +40 ±2°C
Relative humidity =93 ±2%
Test duration = 56 days

Performance:
Capacitance change ≤ ±3%
DF change ≤ 2 x initial limit (1kHz)
R_{INS} ≥ 50% of initial limit value

Typical capacitance change versus operating time (at Tcase=+70°C)
±5% after 30000 hours at Urms or after 100000 hours at Ur

Life expectancy
≥ 60000 hours at Urms or ≥ 200000 hours at Ur with T(case) ≤ +70°C: expected life max. limit reference.
≥ 30000 hours at Urms or ≥ 100000 hours at Ur with T(case) = + 85°C: reference for expected life calculations at different operating conditions (and expected life at max. admissible voltage at +70°C, case).
≥ 10000 hours at de-rated Urms (Urms x 0.8) or ≥ 30000 hours at de-rated Ur (Ur x 0.8) at T(case) = +100°C; NO superimposed Irms applied.

Failure quota
300/10^9 component hours

Resistance to soldering heat test

Test conditions:
Solder bath temperature= +260 ±5°C
Dipping time (with heat screen)= 10 ±1s

Performance:
Capacitance change ≤ ±1%
DF change ≤ 0.0010 at 1kHz
R_{INS} ≥ 50% of initial limit value

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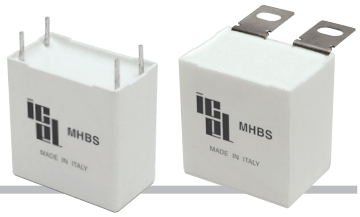
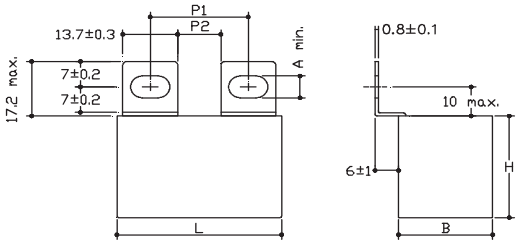
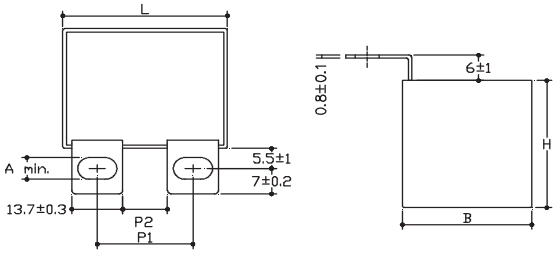


Dimensions in mm (drawings not in scale)

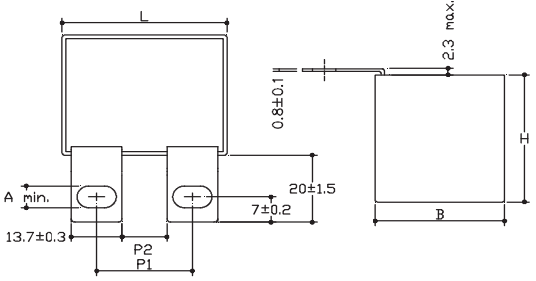
Style **SP-SPM8 / SR-SRM8**



Style **VP-VPM8 / VR-VRM8**



Style **FP-FPM8 / FR-FRM8**

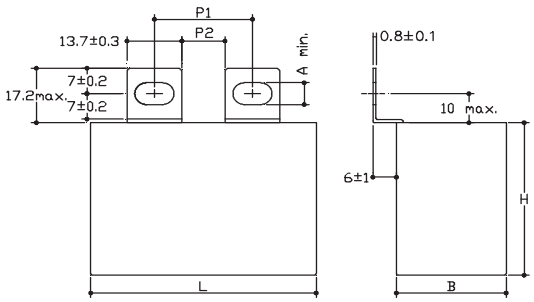


Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
SP-SPM8 VP-VPM8 FP-FPM8	42÷42,5	23÷28(M6) 25÷26(M8)	11min.
	57,5	37÷42(M6) 39÷40(M8)	24min.
SR-SRM8 VR-VRM8 FR-FRM8	42÷42,5	20÷25(M6) 22÷23(M8)	8min.
	57,5	34÷39(M6) 36÷37(M8)	21min.

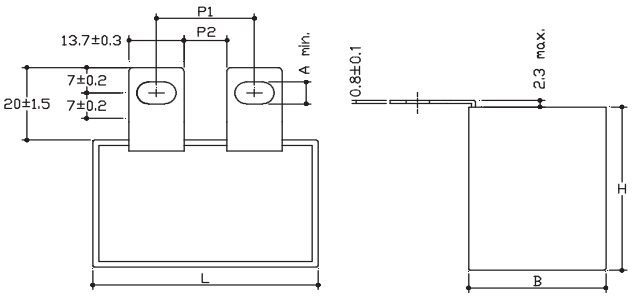
Fixing slot size (mm)**	
SP, VP, FP, SR, VR, FR	A= 6min.
SPM8, VPM8, FPM8, SRM8, VRM8, FRM8	A= 8min.

**** Standard fixing slots for M6 screws,**
slots for M8 screws available upon request

Style **SN-SNM8** (for L=57,5mm only)



Style **VN-VNM8** (for L=57,5mm only)

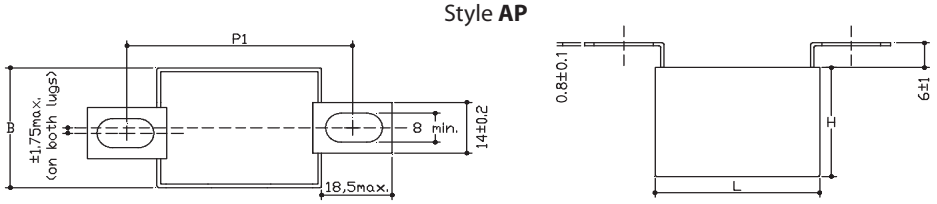


Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
SN-SNM8 VN-VNM8	42÷42,5	Not available	
	57,5	23÷28 (M6) 25÷26 (M8)	11min.

Fixing slot size (mm)**	
SN, VN	A= 6min.
SNM8, VNM8	A= 8min.

**** Standard fixing slots for M6 screws,**
slots for M8 screws available upo request

Style **AP**



Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
AP	42÷42,5	53,5÷63 (M8)	-
	57,5	68,5÷77 (M8)	-

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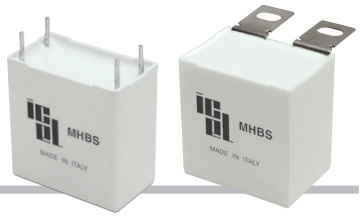
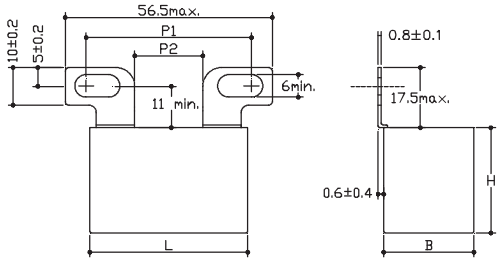


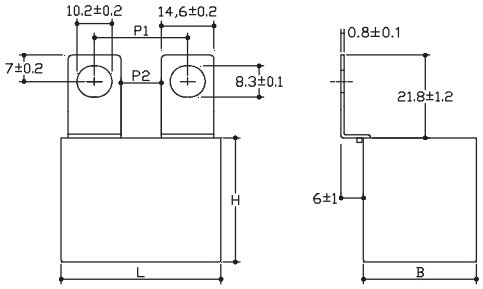
Dimensions in mm (drawings not in scale)

Style **BP** (Not available for L=57,5mm)



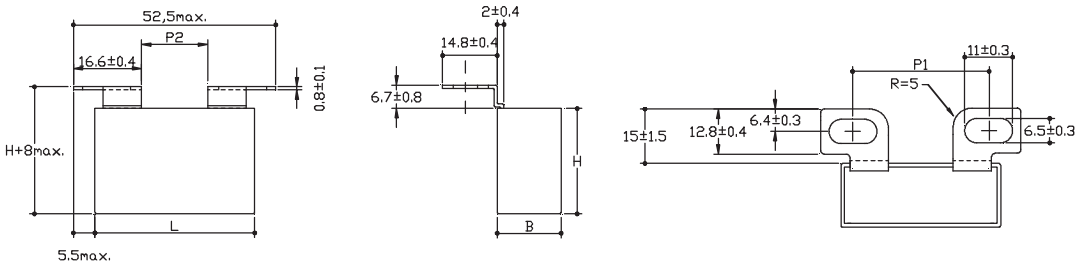
Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
BP	42÷42,5	32÷45 (M6)	17min.
	57,5	Not available	

Style **SL** (M8 slots only)



Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
SL	42÷42,5	22÷24 (M8)	8min.
	57,5	36÷38 (M8)	21min.

Style **BN** (M6 slots only; not available for L=57,5mm and for L=42÷42,5mm having B>22mm)



Fixing pitch and distance between lugs (mm)			
Lugs style	L	P1	P2
BN	42÷42,5	30÷37 (M6)	15min.
		Not available for B>22	
	57,5	Not available	

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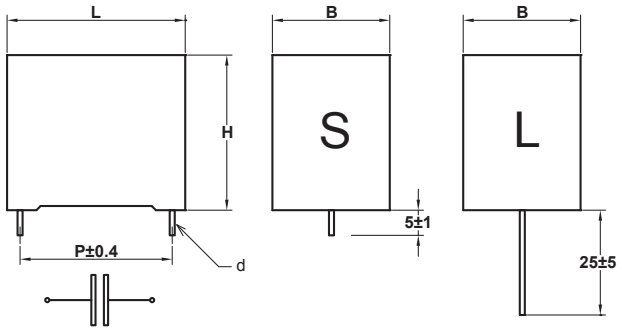
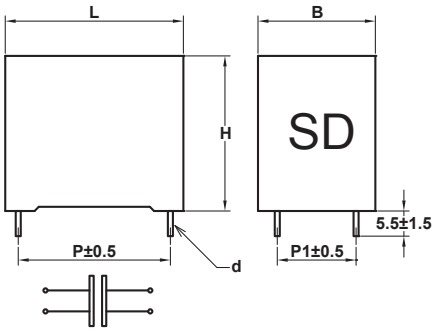
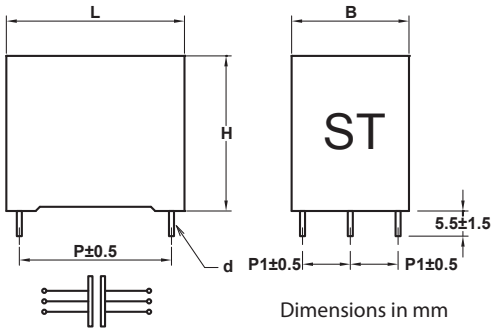
2 terminals execution



4 terminals execution



6 terminals execution



Dimensions in mm

MHBS35...: Ur = 575Vdc; Urms = 240Vac; Upkr = 660Vdc; Upk = 750Vdc

Max. admissible voltage at +70°C (case) = 630Vdc, 250Vac, Upkr = 720Vdc, Upk = 815Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.(1)			ESR(2)	ICEL CODE(3)
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
3	11	20	32	0,8	27,5	-	27	81	4	3	2	16,5	MHBS354300*H#
3,3	11	20	32	0,8	27,5	-	27	89,1	4,5	3,5	2,5	15	MHBS354330*H#
4,7	13	22	32	1	27,5	-	27	126,9	5,5	4,5	3,5	11,6	MHBS354470*H#
5	13	22	32	1	27,5	-	27	135	6	4,5	3,5	11	MHBS354500*H#
6,8	15	24,5	32	1	27,5	-	27	102,6	7	5,5	4	9,4	MHBS354680*H#
7,5	14	28	32	1,2	27,5	-	27	202,5	8	6,5	4,5	8,6	MHBS354750*H#
10	18	33	32	1,2	27,5	-	27	270	10	8	5,5	7	MHBS355100*H#
12	18	33	32	1,2	27,5	-	27	324	11	8,5	6,5	6,1	MHBS355120*H#
12	18	33	32	1,2	27,5	5,1	27	324	12	9,5	7	5,4	MHBS355120*HSD
12	17	28	42,5	1,2	37,5	-	19	228	9,5	7,5	5,5	7,4	MHBS355120*J#
12	17	28	42,5	-	-	-	19	228	11	8,5	6,5	6,6	MHBS355120*§§
15	22	37	32	1,2	27,5	-	27	405	13,5	10,5	7,5	5,6	MHBS355150*H#
15	22	37	32	1,2	27,5	10,2	27	405	14,5	11,5	8,5	4,9	MHBS355150*HSD
15	22	30	42,5	1,2	37,5	-	19	285	11	8,5	6,5	6,4	MHBS355150*J#
15	22	30	42,5	-	-	-	19	285	13	10	7,5	5,6	MHBS355150*§§

(1) at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

(2) typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

(3) change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

(4) Upon request only

(5) Not available with tolerance on capacitance < ±10%

(6) Not suitable for across the line applications

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Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
20	20	40	41,5	1,2	37,5	-	19	380	13,5	11	8	5,6	MHBS355200*J#
20	20	40	41,5	1,2	37,5	10,2	19	380	15	12	8,5	5	MHBS355200*JSD
20	20	40	41,5	-	-	-	19	380	16,5	12,5	9,5	4,8	MHBS355200*§§
25	28	37	42,5	1,2	37,5	-	19	475	14	11,5	8,5	5	MHBS355250*J#
25	28	37	42,5	1,2	37,5	10,2	19	475	15,5	12,5	9	4,4	MHBS355250*JSD
25	28	37	42,5	-	-	-	19	475	17	13,5	10	4,2	MHBS355250*§§
30	28	37	42,5	1,2	37,5	-	19	570	14	12	9	4,6	MHBS355300*J#
30	28	37	42,5	1,2	37,5	10,2	19	570	16,5	13	9,5	4	MHBS355300*JSD
30	28	37	42,5	-	-	-	19	570	18,5	14,5	10,5	3,8	MHBS355300*§§
30	24	44	41,5	1,2	37,5	-	19	570	14	12	9	4,6	MHBS355300*J#A
30	24	44	41,5	1,2	37,5	10,2	19	570	17,5	14	10	4	MHBS355300*JSDA
35	30	45	42,5	1,2	37,5	-	19	665	14	14	11	4,3	MHBS355350*J#
35	30	45	42,5	1,2	37,5	20,3	19	665	19	15,5	11	3,7	MHBS355350*JSD
35	30	45	42,5	-	-	-	19	665	21	16,5	12,5	3,5	MHBS355350*§§
40	30	45	42,5	1,2	37,5	-	19	760	14	14	11	4	MHBS355400*J#
40	30	45	42,5	1,2	37,5	20,3	19	760	20	16	12	3,4	MHBS355400*JSD
40	30	45	42,5	-	-	-	19	760	22	17,5	13	3,2	MHBS355400*§§
47	35	50	42	1,2	37,5	-	19	893	14	14	12	3,6	MHBS355470*J#
47	35	50	42	1,2	37,5	20,3	19	893	23	18,5	13	3	MHBS355470*JSD
47	35	50	42	-	-	-	19	893	25,5	20,5	14,5	2,8	MHBS355470*§§
50	30	45	57,5	1,2	52,5	-	12,5	625	14	14	10	4,6	MHBS355500*R#
50	30	45	57,5	1,2	52,5	20,3	12,5	625	19	15,5	11	4	MHBS355500*RSD
50	30	45	57,5	-	-	-	12,5	625	21,5	17,5	12,5	3,8	MHBS355500*§§
60	30	45	57,5	1,2	52,5	-	12,5	750	14	14	10,5	4,2	MHBS355600*R#
60	30	45	57,5	1,2	52,5	20,3	12,5	750	20,5	16,5	12	3,6	MHBS355600*RSD
60	30	45	57,5	-	-	-	12,5	750	23	18,5	13,5	3,4	MHBS355600*§§
75	35	50	57,5	1,2	52,5	-	12,5	937,5	14	14	12	3,9	MHBS355750*R#
75	35	50	57,5	1,2	52,5	20,3	12,5	937,5	23	18,5	13,5	3,3	MHBS355750*RSD
75	35	50	57,5	-	-	-	12,5	937,5	25,5	20,5	15	3,1	MHBS355750*§§
90	38	57,5	57,5	1,2	52,5	20,3	12,5	1125	25	20	15	3,1	MHBS355900*RSD
90	38	57,5	57,5	1,2	52,5	10,2	12,5	1125	26	21	15,5	2,9	MHBS355900*RST
90	38	57,5	57,5	-	-	-	12,5	1125	27,5	22	16,5	2,9	MHBS355900*§§
100	38	57,5	57,5	1,2	52,5	20,3	12,5	1250	26	20,5	15,5	3	MHBS356100*RSD
100	38	57,5	57,5	1,2	52,5	10,2	12,5	1250	27	21,5	16	2,8	MHBS356100*RST

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

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• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS40...: Ur = 700Vdc; Urms = 285Vac; Upkr = 805Vdc; Upk = 910Vdc

Max. admissible voltage at +70°C (case) = 770Vdc, 300Vac, Upkr = 885Vdc, Upk = 1000Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
2,2	11	20	32	0,8	27,5	-	31	68,2	4	3	2,5	17,7	MHBS404220*H#
2,5	11	20	32	0,8	27,5	-	31	77,5	4,5	3,5	3	15,8	MHBS404250*H#
3,3	13	22	32	1	27,5	-	31	102,3	5,5	4,5	3,5	13,3	MHBS404330*H#
4,7	15	24,5	32	1	27,5	-	31	145,7	6,5	5,5	4	10,5	MHBS404470*H#
5	15	24,5	32	1,2	27,5	-	31	155	7	5,5	4	9,7	MHBS404500*H#
7,5	14	25	42,5	1,2	37,5	-	21	157,5	7,5	6	4,5	9,2	MHBS404750*J#
10	18	33	32	1,2	27,5	-	31	310	11	8,5	6	6,7	MHBS405100*H#
10	18	33	32	1,2	27,5	5,1	31	310	12	9,5	6,5	6	MHBS405100*HSD
12	22	37	32	1,2	27,5	-	31	372	13	10,5	7,5	5,8	MHBS405120*H#
12	22	37	32	1,2	27,5	10,2	31	372	14,5	11,5	8,5	5,2	MHBS405120*HSD
12	22	30	42,5	1,2	37,5	-	21	252	11	8,5	6,5	6,4	MHBS405120*J#
12	22	30	42,5	-	-	-	21	252	13	10	7,5	5,6	MHBS405120*§§
15	22	33,5	42,5	1,2	37,5	-	21	315	12	9,5	7	5,5	MHBS405150*J#
15	22	33,5	42,5	1,2	37,5	5,1	21	315	13,5	10,5	7,5	4,9	MHBS405150*JSD
15	22	33,5	42,5	-	-	-	21	315	14,5	11,5	8,5	4,7	MHBS405150*§§
20	24	44	41,5	-	-	-	21	420	18,5	14,5	10,5	4,1	MHBS405200*§§
20	28	37	42,5	1,2	37,5	-	21	420	14	11,5	8,5	4,9	MHBS405200*J#
20	28	37	42,5	1,2	37,5	10,2	21	420	16	12,5	9	4,3	MHBS405200*JSD
20	28	37	42,5	-	-	-	21	420	17,5	14	10	4,1	MHBS405200*§§A
22	24	44	41,5	1,2	37,5	-	21	462	14	13	9,5	4,6	MHBS405220*J#
22	24	44	41,5	1,2	37,5	10,2	21	462	17,5	14	10,5	4	MHBS405220*JSD
22	24	44	41,5	-	-	-	21	462	19,5	15,5	11,5	3,8	MHBS405220*J§§
22	28	37	42,5	1,2	37,5	-	21	462	14	12	9	4,6	MHBS405220*J#A
22	28	37	42,5	1,2	37,5	10,2	21	462	16,5	13,5	10	4	MHBS405220*JSDA
22	28	37	42,5	-	-	-	21	462	18,5	14,5	10,5	3,8	MHBS405220*J§§A
25	24	44	41,5	1,2	37,5	-	21	525	14	13,5	10	4,3	MHBS405250*J#
25	24	44	41,5	1,2	37,5	10,2	21	525	19	15	11	3,7	MHBS405250*JSD
25	24	44	41,5	-	-	-	21	525	21	16,5	12	3,5	MHBS405250*J§§
30	30	45	42,5	1,2	37,5	-	21	630	14	14	11	4	MHBS405300*J#
30	30	45	42,5	1,2	37,5	20,3	21	630	20,5	16	12	3,4	MHBS405300*JSD
30	30	45	42,5	-	-	-	21	630	22,5	17,5	13	3,2	MHBS405300*§§
40	35	50	42	1,2	37,5	-	21	840	14	14	12	3,5	MHBS405400*J#
40	35	50	42	1,2	37,5	20,3	21	840	23,5	19	13,5	2,9	MHBS405400*JSD
40	35	50	42	-	-	-	21	840	25,5	20,5	14,5	2,8	MHBS405400*§§A
40	30	45	57,5	1,2	52,5	-	14,5	580	14	14	10,5	4,5	MHBS405400*R#
40	30	45	57,5	1,2	52,5	20,3	14,5	580	20	16	11,5	3,8	MHBS405400*RSD
40	30	45	57,5	-	-	-	14,5	580	22	17,5	12,5	3,6	MHBS405400*§§
45	30	45	57,5	1,2	52,5	-	14,5	652,5	14	14	11	4,2	MHBS405450*R#
45	30	45	57,5	1,2	52,5	20,3	14,5	652,5	21	16,5	12	3,6	MHBS405450*RSD
45	30	45	57,5	-	-	-	14,5	652,5	23	18	13	3,4	MHBS405450*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

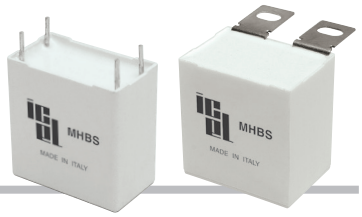
[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
50	35	50	57,5	1,2	52,5	-	14,5	725	14	14	12	4	MHBS405500*R#
50	35	50	57,5	1,2	52,5	20,3	14,5	725	22,5	18	13	3,4	MHBS405500*RSD
50	35	50	57,5	-	-	-	14,5	725	24,5	19,5	14,5	3,2	MHBS405500*§§
55	35	50	57,5	1,2	52,5	-	14,5	797,5	14	14	12,5	3,9	MHBS405550*R#
55	35	50	57,5	1,2	52,5	20,3	14,5	797,5	23,5	19	13,5	3,3	MHBS405550*RSD
55	35	50	57,5	-	-	-	14,5	797,5	25,5	20,5	15	3,1	MHBS405550*§§
60	35	50	57,5	1,2	52,5	-	14,5	870	14	14	13	3,7	MHBS405600*R#
60	35	50	57,5	1,2	52,5	20,3	14,5	870	24,5	19,5	14	3,1	MHBS405600*RSD
60	35	50	57,5	-	-	-	14,5	870	26,5	21	15,5	2,9	MHBS405600*§§
75	38	57,5	57,5	1,2	52,5	20,3	14,5	1087,5	26	20,5	15,5	2,9	MHBS405750*RSD
75	38	57,5	57,5	1,2	52,5	10,2	14,5	1087,5	27	21,5	16	2,7	MHBS405750*RST
75	38	57,5	57,5	-	-	-	14,5	1087,5	28,5	23	17	2,7	MHBS405750*§§
80	38	57,5	57,5	1,2	52,5	20,3	14,5	1160	26,5	21	16	2,8	MHBS405800*RSD
80	38	57,5	57,5	1,2	52,5	10,2	14,5	1160	27,5	22	16,5	2,6	MHBS405800*RST

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS45...: Ur = 800Vdc; Urms = 315Vac; Upkr = 920Vdc; Upk = 1040Vdc

Max. admissible voltage at +70°C (case) = 880Vdc, 330Vac, Upkr = 1010Vdc, Upk = 1140Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
2	11	20	32	0,8	27,5	-	36	72	4	3,5	2,5	16,7	MHBS454200*H#
2,2	11	20	32	0,8	27,5	-	36	79,2	4,5	4	3	15,3	MHBS454220*H#
3	13	22	32	1	27,5	-	36	108	5,5	4,5	3,5	12,4	MHBS454300*H#
4	15	24,5	32	1	27,5	-	36	144	6,5	5,5	4	10,8	MHBS454400*H#
5	14	28	32	1,2	27,5	-	36	180	8	6,5	4,5	9,4	MHBS454500*H#
5	14	25	42,5	1,2	37,5	-	24	120	7,5	6	4	10,3	MHBS454500*J#
6,8	18	33	32	1,2	27,5	-	36	244,8	9,5	7,5	5,5	7,6	MHBS454680*H#
7,5	18	33	32	1,2	27,5	-	36	270	10,5	8,5	6	7,1	MHBS454750*H#
7,5	18	33	32	1,2	17,5	5,1	36	270	11,5	9	6,5	6,5	MHBS454750*HSD
7,5	17	28	42,5	1,2	37,5	-	24	180	9	7	5	8,3	MHBS454750*J#
7,5	17	28	42,5	-	-	-	24	180	10,5	8,5	6	7	MHBS454750*§§
10	22	37	32	1,2	27,5	-	36	360	13	10,5	7,5	5,9	MHBS455100*H#
10	22	37	32	1,2	27,5	10,2	24	360	14,5	11,5	8,5	5,3	MHBS455100*HSD
10	22	30	42,5	1,2	37,5	-	24	240	10,5	8,5	6	7	MHBS455100*J#
10	22	30	42,5	1,2	37,5	5,1	24	240	11,5	9	6,5	6,4	MHBS455100*JSD
10	22	30	42,5	-	-	-	24	240	12,5	10	7,5	6,2	MHBS455100*§§
12	22	33,5	42,5	1,2	37,5	-	24	288	11,5	9	7	6,4	MHBS455120*J#
12	22	33,5	42,5	1,2	37,5	5,1	24	288	12,5	10	7,5	5,8	MHBS455120*JSD
12	22	33,5	42,5	-	-	-	24	288	13,5	11	8	5,6	MHBS455120*§§
15	20	40	41,5	1,2	37,5	-	24	360	13,5	11	8	5,6	MHBS455150*J#
15	20	40	41,5	1,2	37,5	10,2	24	360	15	12	8,5	5	MHBS455150*JSD
20	24	44	41,5	1,2	37,5	-	24	480	14	13	9,5	4,8	MHBS455200*J#
20	24	44	41,5	1,2	37,5	10,2	24	480	18	14,5	10,5	4,2	MHBS455200*JSD
22	30	45	42,5	1,2	37,5	-	24	528	14	13,5	10	4,6	MHBS455220*J#
22	30	45	42,5	1,2	37,5	20,3	24	528	18,5	14,5	10,5	4	MHBS455220*JSD
22	30	45	42,5	-	-	-	24	528	20,5	16	12	3,8	MHBS455220*§§
25	30	45	42,5	1,2	37,5	-	24	600	14	14	10,5	4,3	MHBS455250*J#
25	30	45	42,5	1,2	37,5	20,3	24	600	19,5	15,5	11,5	3,7	MHBS455250*JSD
25	30	45	42,5	-	-	-	24	600	22	17	12,5	3,5	MHBS455250*§§
30	35	50	42	1,2	37,5	-	24	720	14	16	11,5	3,8	MHBS455300*J#
30	35	50	42	1,2	37,5	20,3	24	720	22,5	18	13	3,2	MHBS455300*JSD
30	35	50	42	-	-	-	24	720	24,5	20	14	3	MHBS455300*§§A
30	30	45	57,5	1,2	52,5	-	16,5	495	14	14	10	4,9	MHBS455300*R#
30	30	45	57,5	1,2	52,5	20,3	16,5	495	19	15,5	11	4,3	MHBS455300*RSD
30	30	45	57,5	-	-	-	16,5	495	21	16,5	12	4,1	MHBS455300*§§
35	30	45	57,5	1,2	52,5	-	16,5	577,5	14	14	11	4,5	MHBS455350*R#
35	30	45	57,5	1,2	52,5	20,3	16,5	577,5	20	16	11,5	3,9	MHBS455350*RSD
35	30	45	57,5	-	-	-	16,5	577,5	22	17,5	13	3,7	MHBS455350*§§
40	35	50	57,5	1,2	52,5	-	16,5	660	14	14	11,5	4,2	MHBS455400*R#
40	35	50	57,5	1,2	52,5	20,3	16,5	660	21,5	17,5	12,5	3,6	MHBS455400*RSD
40	35	50	57,5	-	-	-	16,5	660	23,5	19	14	3,4	MHBS455400*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

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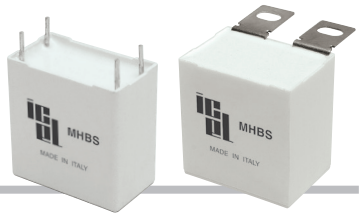
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.(1)			ESR(2)	ICEL CODE(3)
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
45	35	50	57,5	1,2	52,5	-	16,5	742,5	14	14	12	4	MHBS455450*R#
45	35	50	57,5	1,2	52,5	20,3	16,5	742,5	23	18,5	13,5	3,4	MHBS455450*RSD
45	35	50	57,5	-	-	-	16,5	742,5	25,5	20	15	3,2	MHBS455450*§§
47	35	50	57,5	1,2	52,5	-	16,5	775,5	14	14	12,5	3,9	MHBS455470*R#
47	35	50	57,5	1,2	52,5	20,3	16,5	775,5	23,5	19	13,5	3,3	MHBS455470*RSD
60	38	57,5	57,5	1,2	52,5	20,3	16,5	990	25,5	20,5	15,5	3	MHBS455600*RSD
60	38	57,5	57,5	1,2	52,5	10,2	16,5	990	26,5	21,5	15,5	2,8	MHBS455600*RST
60	38	57,5	57,5	-	-	-	16,5	990	28,5	22,5	16,5	2,8	MHBS455600*§§
65	38	57,5	57,5	1,2	52,5	20,3	16,5	1072,5	26,5	21	15,5	2,9	MHBS455650*RSD
65	38	57,5	57,5	1,2	52,5	10,2	16,5	1072,5	27,5	22	16	2,7	MHBS455650*RST

(1) at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

(2) typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

(3) change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

(4) Upon request only

(5) Not available with tolerance on capacitance < ±10%

(6) Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS50...: Ur = 900Vdc; Urms = 350Vac; Upkr = 1035Vdc; Upk = 1170Vdc

Max. admissible voltage at +70°C (case) = 1000Vdc, 370Vac, Upkr = 1150Vdc, Upk = 1300Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
2,2	13	22	32	1	27,5	-	41,5	91,3	5	4	3	14,7	MHBS504220*H#
2,5	13	22	32	1	27,5	-	41,5	103,7	5,5	4,5	3	13,5	MHBS504250*H#
3	15	24,5	32	1	27,5	-	41,5	124,5	6,5	5	3,5	11,9	MHBS504300*H#
3,3	14	28	32	1,2	27,5	-	41,5	137	7	5,5	4	11	MHBS504330*H#
4,7	18	33	32	1,2	27,5	-	41,5	195	8,5	6,5	5	9	MHBS504470*H#
4,7	14	25	42,5	1,2	37,5	-	28	131,6	7	5,5	4	10,6	MHBS504470*J#
6	18	33	32	1,2	27,5	-	41,5	249	10	8	6	7,6	MHBS504600*H#
6	18	33	32	1,2	27,5	5,1	41,5	249	11	8,5	6	7	MHBS504600*HSD
6	17	28	42,5	1,2	37,5	-	28	168	8,5	6,5	5	9,2	MHBS504600*J#
6	17	28	42,5	-	-	-	28	168	10	8	6	8,4	MHBS504600*§§
7,5	22	37	32	1,2	27,5	-	41,5	311,2	12,5	9,5	7	6,9	MHBS504750*H#
7,5	22	37	32	1,2	27,5	10,2	41,5	311,2	13,5	10,5	8	6,3	MHBS504750*HSD
7,5	22	30	42,5	1,2	37,5	-	28	210	10	8	5,5	8	MHBS504750*J#
7,5	22	30	42,5	-	-	-	28	210	12	9,5	7	7,2	MHBS504750*§§
10	22	33,5	42,5	1,2	37,5	-	28	280	11,5	9	6,5	6,8	MHBS505100*J#
10	22	33,5	42,5	1,2	37,5	5,1	28	280	12,5	9,5	7	6,2	MHBS505100*JSD
10	22	33,5	42,5	-	-	-	28	280	13,5	10,5	8	6	MHBS505100*§§
12	20	40	41,5	1,2	37,5	-	28	336	13,5	11	7,5	6,3	MHBS505120*J#
12	20	40	41,5	1,2	37,5	10,2	28	336	14,5	11,5	8	5,7	MHBS505120*JSD
12	20	40	41,5	-	-	-	28	336	15,5	12,5	9	5,5	MHBS505120*§§
15	24	44	41,5	1,2	37,5	-	28	420	14	12,5	9,5	5,3	MHBS505150*J#
15	24	44	41,5	1,2	37,5	10,2	28	420	17	14	10,5	4,7	MHBS505150*JSD
15	24	44	41,5	-	-	-	28	420	18,5	15	11,5	4,5	MHBS505150*§§
15	28	37	42,5	1,2	37,5	-	28	420	14	11,5	8	5,3	MHBS505150*J#A
15	28	37	42,5	1,2	37,5	10,2	28	420	15,5	12,5	9	4,7	MHBS505150*JSDA
15	28	37	42,5	-	-	-	28	420	17,5	14	10,5	4,5	MHBS505150*§§A
20	30	45	42,5	1,2	37,5	-	28	560	14	14	10,5	4,5	MHBS505200*J#
20	30	45	42,5	1,2	37,5	20,3	28	560	19	15	11	3,9	MHBS505200*JSD
20	30	45	42,5	-	-	-	28	560	21	16,5	12	3,7	MHBS505200*§§
25	35	50	42	1,2	37,5	-	28	700	14	14	11,5	4	MHBS505250*J#
25	35	50	42	1,2	37,5	20,3	28	700	21,5	17,5	12,5	3,4	MHBS505250*JSD
25	35	50	42	-	-	-	28	700	24	19,5	13,5	3,2	MHBS505250*§§A
25	30	45	57,5	1,2	52,5	-	18,5	462,5	14	13	10	5,3	MHBS505250*R#
25	30	45	57,5	1,2	52,5	20,3	18,5	462,5	18	15	11	4,7	MHBS505250*RSD
25	30	45	57,5	-	-	-	18,5	462,5	19,5	16	11,5	4,5	MHBS505250*§§
35	35	50	57,5	1,2	52,5	-	18,5	647,5	14	14	12	4,2	MHBS505350*R#
35	35	50	57,5	1,2	52,5	20,3	18,5	647,5	22	17,5	13	3,6	MHBS505350*RSD
35	35	50	57,5	-	-	-	18,5	647,5	24	19	14	3,4	MHBS505350*§§
40 [5]	35	50	57,5	1,2	52,5	-	18,5	740	14	14	13	3,9	MHBS505400*R# [5]
40 [5]	35	50	57,5	1,2	52,5	20,3	18,5	740	23,5	19	13,5	3,3	MHBS505400*RSD [5]

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

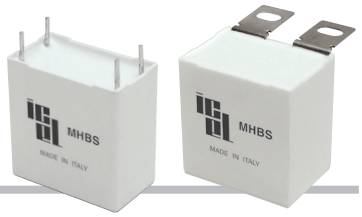
[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
47	38	57,5	57,5	1,2	52,5	20,3	18,5	869,5	25,5	20,5	15	3	MHBS505470*RSD
47	38	57,5	57,5	1,2	52,5	10,2	18,5	869,5	26,5	21,5	15,5	2,8	MHBS505470*RST
47	38	57,5	57,5	-	-	-	18,5	869,5	28,5	23	16,5	2,8	MHBS505470*§§
50	38	57,5	57,5	1,2	52,5	20,3	18,5	925	26	21	15	3	MHBS505500*RSD
50	38	57,5	57,5	1,2	52,5	10,2	18,5	925	27	22	16	2,8	MHBS505500*RST

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS55...: Ur = 1000Vdc; Urms = 400Vac; Upkr = 1150Vdc; Upk = 1300Vdc

Max. admissible voltage at +70°C (case) = 1100Vdc, 420Vac, Upkr = 1265Vdc, Upk = 1430Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
1,2	11	20	32	0,8	27,5	-	47	56,4	3,5	2,5	2	20,5	MHBS554120*H#
1,5	11	20	32	0,8	27,5	-	47	70,5	4,5	3,5	2,5	17,8	MHBS554150*HS
2	13	22	32	1	27,5	-	47	96	5,5	4	3	14,5	MHBS554200*H#
2,5	15	24,5	32	1	27,5	-	47	117,5	6	5	3,5	12,8	MHBS554250*H#
3	14	28	32	1,2	27,5	-	47	141	7,5	6	4	11	MHBS554300*H#
4	14	25	42,5	1,2	37,5	-	31	124	7	5,5	4	11	MHBS554400*J#
4,7	18	33	32	1,2	27,5	-	47	220,9	9,5	7,5	5,5	8,3	MHBS554470*H#
4,7	18	33	32	1,2	27,5	10,2	47	220,9	10,5	8,5	6	7,7	MHBS554470*HSD
4,7	17	28	42,5	1,2	37,5	-	31	145,7	8,5	6,5	4,5	9,6	MHBS554470*J#
4,7	17	28	42,5	-	-	-	31	145,7	9,5	7,5	5,5	8,7	MHBS554470*§§
5	18	33	32	1,2	27,5	-	47	235	10	7,5	5,5	8	MHBS554500*H#
5	18	33	32	1,2	27,5	10,2	47	235	11	9	6,5	7,4	MHBS554500*HSD
5	17	28	42,5	1,2	37,5	-	31	155	9,5	7,5	5,5	9,3	MHBS554500*J#
5	17	28	42,5	-	-	-	31	155	10,5	8,5	6	8,5	MHBS554500*§§
6,8	22	37	32	1,2	27,5	-	47	319,6	12	10	7,5	6,9	MHBS554680*H#
6,8	22	37	32	1,2	27,5	10,2	47	319,6	13,5	11	8	6,3	MHBS554680*HSD
6,8	22	30	42,5	1,2	37,5	-	31	210,8	10	8	6	7,9	MHBS554680*J#
6,8	22	30	42,5	-	-	-	31	210,8	11,5	9	7	7,1	MHBS554680*§§
7,5	22	33,5	42,5	1,2	37,5	-	31	232,5	11	8,5	6,5	7,4	MHBS554750*J#
7,5	22	33,5	42,5	1,2	37,5	5,1	31	232,5	12	9,5	7	6,8	MHBS554750*JSD
7,5	22	33,5	42,5	-	-	-	31	232,5	13	10,5	7,5	6,6	MHBS554750*§§
9	20	40	41,5	1,2	37,5	-	31	279	13	10	7,5	6,6	MHBS554900*J#
9	20	40	41,5	1,2	37,5	10,2	31	279	14,5	11	8	6	MHBS554900*JSD
9	20	40	41,5	-	-	-	31	279	15,5	12	8,5	5,8	MHBS554900*§§
10	20	40	41,5	1,2	37,5	-	31	310	13,5	10,5	8	6,3	MHBS555100*J#
10	20	40	41,5	1,2	37,5	10,2	31	310	15	11,5	8,5	5,7	MHBS555100*JSD
12	24	44	41,5	1,2	37,5	-	31	372	14	12	9	5,7	MHBS555120*J#
12	24	44	41,5	1,2	37,5	10,2	31	372	16,5	13,5	9,5	5,1	MHBS555120*JSD
12	24	44	41,5	-	-	-	31	372	18	14	10,5	4,9	MHBS555120*§§
12	28	37	42,5	1,2	37,5	-	31	372	14	11,5	8	5,7	MHBS555120*J#A
12	28	37	42,5	1,2	37,5	10,2	31	372	15	12	9	5,1	MHBS555120*JSDA
12	28	37	42,5	-	-	-	31	372	16,5	13,5	10	4,9	MHBS555120*§§A
15	30	45	42,5	1,2	37,5	-	31	465	14	13,5	10	5	MHBS555150*J#
15	30	45	42,5	1,2	37,5	20,3	31	465	18	14,5	11	4,4	MHBS555150*JSD
15	30	45	42,5	-	-	-	31	465	20	16	12	4,2	MHBS555150*§§
20	35	50	42	1,2	37,5	-	31	620	14	14	11	4,3	MHBS555200*J#
20	35	50	42	1,2	37,5	20,3	31	620	20,5	16,5	11,5	3,7	MHBS555200*JSD
20	35	50	42	-	-	-	31	620	23	18,5	13	3,5	MHBS555200*§§
22	30	45	57,5	1,2	52,5	-	21	462	14	13,5	10	5,1	MHBS555220*R#
22	30	45	57,5	1,2	52,5	20,3	21	462	18,5	15	11	4,5	MHBS555220*RSD
22	30	45	57,5	-	-	-	21	462	20,5	16,5	12	4,3	MHBS555220*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

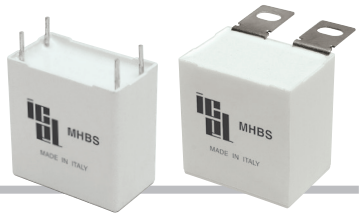
[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
30	35	50	57,5	1,2	52,5	-	21	630	14	14	11,5	4,3	MHBS555300*R#
30	35	50	57,5	1,2	52,5	20,3	21	630	22	17,5	12,5	3,8	MHBS555300*RSD
30	35	50	57,5	-	-	-	21	630	24	19	13,5	3,6	MHBS555300*§§
33	35	50	57,5	1,2	52,5	-	21	693	14	14	12	4,1	MHBS555330*R#
33	35	50	57,5	1,2	52,5	20,3	21	693	23	18,5	13	3,5	MHBS555330*RSD
40	38	57,5	57,5	1,2	52,5	20,3	21	840	25	20	14,5	3,2	MHBS555400*RSD
40	38	57,5	57,5	1,2	52,5	10,2	21	840	26	21	15	3	MHBS555400*RST
40	38	57,5	57,5	-	-	-	21	840	27,5	22	16,5	3	MHBS555400*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS60...: Ur = 1100Vdc; Urms = 420Vac; Upkr = 1265Vdc; Upk = 1430Vdc

Max. admissible voltage at +70°C (case) = 1200Vdc, 440Vac, Upkr = 1380Vdc, Upk = 1560Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
1	11	20	32	0,8	27,5	-	50	50	3,5	2,5	2	20,5	MHBS604100*H#
1,2	11	20	32	0,8	27,5	-	50	60	4,5	3,5	2,5	18	MHBS604120*H#
1,5	13	22	32	1	27,5	-	50	75	5	4	3	15,5	MHBS604150*H#
2	15	24,5	32	1	27,5	-	50	100	6	5	3,5	12,9	MHBS604200*H#
2,2	15	24,5	32	1	27,5	-	50	110	6	5	3,5	12,2	MHBS604220*H#
2,5	14	28	32	1,2	27,5	-	50	125	7	5,5	4	10,8	MHBS604250*H#
3	14	25	42	1,2	37,5	-	34	102	6,5	5	4	11,8	MHBS604300*J#
3,3	18	33	32	1,2	27,5	-	50	165	9	7	5	9,2	MHBS604330*H#
4	18	33	32	1,2	27,5	-	50	200	9,5	7,5	5,5	8,1	MHBS604400*H#
4	18	33	32	1,2	27,5	5,1	50	200	10,5	8,5	6	7,5	MHBS604400*HSD
4	17	28	42,5	1,2	37,5	-	34	136	8,5	6,5	4,5	9,9	MHBS604400*J#
4	17	28	42,5	-	-	-	34	136	9,5	7,5	5,5	9,1	MHBS604400*§§
4,7	22	37	32	1,2	27,5	-	50	235	11,5	9	7	7,4	MHBS604470*H#
4,7	22	37	32	1,2	27,5	10,2	50	235	12,5	10	7,5	6,8	MHBS604470*HSD
4,7	22	30	42,5	1,2	37,5	-	34	159,8	10	7,5	5,5	8,3	MHBS604470*J#
4,7	22	30	42,5	-	-	-	34	159,8	11,5	8,5	6,5	7,5	MHBS604470*§§
5	22	37	32	1,2	27,5	-	50	250	12	9,5	7	7,2	MHBS604500*H#
5	22	37	32	1,2	27,5	10,2	50	250	13	10,5	7,5	6,6	MHBS604500*HSD
5	22	30	42,5	1,2	37,5	-	34	170	10,5	8	5,5	8,1	MHBS604500*J#
5	22	30	42,5	-	-	-	34	170	12	9	6,5	7,3	MHBS604500*§§
6,8	22	33,5	42,5	1,2	37,5	-	34	231,2	11	9	6,5	6,9	MHBS604680*J#
6,8	22	33,5	42,5	1,2	37,5	5,1	34	231,2	12	9,5	7	6,3	MHBS604680*JSD
6,8	22	33,5	42,5	-	-	-	34	231,2	13	10,5	7,5	6,1	MHBS604680*§§
7,5	22	33,5	42,5	1,2	37,5	-	34	255	11,5	9,5	6,5	6,6	MHBS604750*J#
7,5	22	33,5	42,5	1,2	37,5	10,2	34	255	12,5	10,5	7,5	6	MHBS604750*JSD
7,5	20	40	41,5	-	-	-	34	255	14	11,5	8,5	5,8	MHBS604750*§§
10	24	44	41,5	1,2	37,5	-	34	340	14	12,5	9	5,5	MHBS605100*J#
10	24	44	41,5	1,2	37,5	10,2	34	340	17	13,5	10	4,9	MHBS605100*JSD
10	24	44	41,5	-	-	-	34	340	18,5	14,5	10,5	4,7	MHBS605100*§§
10	28	37	42,5	1,2	37,5	-	34	340	14	11	8	5,5	MHBS605100*J#A
10	28	37	42,5	1,2	37,5	10,2	34	340	15,5	12	9	4,9	MHBS605100*JSDA
10	28	37	42,5	-	-	-	34	340	17	13	9,5	4,7	MHBS605100*§§A
12	30	45	42,5	1,2	37,5	-	34	408	14	13,5	10	5	MHBS605120*J#
12	30	45	42,5	1,2	37,5	20,3	34	408	18,5	14,5	10,5	4,4	MHBS605120*JSD
12	30	45	42,5	-	-	-	34	408	20	15,5	11,5	4,2	MHBS605120*§§
15	35	50	42	1,2	37,5	-	34	510	14	14	10,5	4,5	MHBS605150*J#
15	35	50	42	1,2	37,5	20,3	34	510	20	16,5	11,5	3,9	MHBS605150*JSD
15	35	50	42	-	-	-	34	510	22	18	12,5	3,7	MHBS605150*§§
20	30	45	57,5	-	-	-	23	460	21	17	12,5	4	MHBS605200*§§
22	35	50	57,5	1,2	52,5	-	23	506	14	14	11	4,6	MHBS605220*R#
22	35	50	57,5	1,2	52,5	20,3	23	506	21	17	12	4	MHBS605220*RSD
22	35	50	57,5	-	-	-	23	506	23	18,5	13	3,8	MHBS605220*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

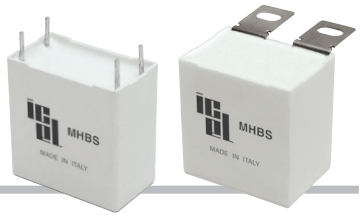
[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

MHBS

• MKP • box with muliple radial or lug terminals
• high energy density • DC-Link • suitable for AC applications (*)
• suitable for high Irms switching applications (*)

(*) upon restrictions



Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
25	35	50	57,5	1,2	52,5	-	23	575	14	14	12	4,4	MHBS605250*R#
25	35	50	57,5	1,2	52,5	20,3	23	575	22	17,5	12,5	3,8	MHBS605250*RSD
25	35	50	57,5	-	-	-	23	575	24	19,5	14	3,6	MHBS605250*§§
33	38	57,5	57,5	1,2	52,5	20,3	23	759	24,5	19,5	14,5	3,3	MHBS605330*RSD
33	38	57,5	57,5	1,2	52,5	10,2	23	759	25,5	20,5	15	3,1	MHBS605330*RST
33	38	57,5	57,5	-	-	-	23	759	27	21,5	16	3,1	MHBS605330*§§
35	38	57,5	57,5	1,2	52,5	20,3	23	805	25	20	14,5	3,2	MHBS605350*RSD
35	38	57,5	57,5	1,2	52,5	10,2	23	805	26	20,5	15	3	MHBS605350*RST

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

[3] change the "*" symbol with the desired capacitance tolerance code (±5% = J; ±10% = K); change the "#" symbol with S for 5mm and L for 25mm leads length terminals; change the "§§" characters with the desired lug style code

[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

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• suitable for high Irms switching applications (*)

(*) upon restrictions

MHBS70...: Ur = 1275Vdc; Urms = 440Vac; Upkr = 1465Vdc; Upk = 1655Vdc

Max. admissible voltage at +70°C (case) = 1400Vdc, 460Vac, Upkr = 1610Vdc, Upk = 1820Vdc

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
0,68	11	20	32	0,8	27,5	-	61	41,5	4	3	2,5	23	MHBS703680*H#
1	13	22	32	1	27,5	-	61	61	5	4	3	17,8	MHBS704100*H#
1,5	15	24,5	32	1	27,5	-	61	91,5	6	4,5	3,5	14	MHBS704150*H#
2	18	33	32	1,2	27,5	-	61	122	8	6,5	4,5	11,5	MHBS704200*H#
2,2	18	33	32	1,2	27,5	-	61	134,2	8,5	6,5	4,5	10,8	MHBS704220*H#
2,2	14	25	42,5	1,2	37,5	-	41	90,2	6,5	5	4	12,5	MHBS704220*J#
2,5	18	33	32	1,2	27,5	-	61	152,5	9	7	5	9,7	MHBS704250*H#
3	18	33	32	1,2	27,5	-	61	183	9,5	7,5	5,5	8,6	MHBS704300*H#
3	18	33	32	1,2	27,5	5,1	61	183	10,5	8,5	6	8	MHBS704300*HSD
3	17	28	42,5	1,2	37,5	-	41	123	8	6,5	5	10,1	MHBS704300*J#
3	17	28	42,5	-	-	-	41	123	9,5	7,5	5,5	9,3	MHBS704300*§§
3,3	22	37	32	1,2	27,5	-	61	201,3	11	8,5	6,5	8,1	MHBS704330*H#
3,3	22	37	32	1,2	27,5	10,2	61	201,3	12	9	6,5	7,5	MHBS704330*HSD
3,3	22	30	42,5	1,2	37,5	-	41	135,3	9	7,5	5,5	9,6	MHBS704330*J#
3,3	22	30	42,5	-	-	-	41	135,3	10,5	8,5	6	8,8	MHBS704330*§§
4	22	37	32	1,2	27,5	-	61	244	12	9,5	7	7,1	MHBS704400*H#
4	22	37	32	1,2	27,5	10,2	61	244	13,5	10,5	7,5	6,5	MHBS704400*HSD
4	22	30	42,5	1,2	37,5	-	41	164	10	8	6	8,7	MHBS704400*J#
4	22	30	42,5	-	-	-	41	164	11,5	9	6,5	7,9	MHBS704400*§§
4,7	22	33,5	42,5	1,2	37,5	-	41	192,7	10,5	8,5	6	7,9	MHBS704470*J#
4,7	22	33,5	42,5	1,2	37,5	5,1	41	192,7	11,5	9	6,5	7,3	MHBS704470*JSD
4,7	22	33,5	42,5	-	-	-	41	192,7	12,5	10	7,5	7,1	MHBS704470*§§
5	22	33,5	42,5	1,2	37,5	-	41	205	10,5	8,5	6,5	7,7	MHBS704500*J#
5	22	33,5	42,5	1,2	37,5	5,1	41	205	11,5	9	6,5	7,1	MHBS704500*JSD
5	22	33,5	42,5	-	-	-	41	205	12,5	10	7,5	6,9	MHBS704500*§§
6,8	24	44	41,5	1,2	37,5	-	41	278,8	13,5	11	8	6,5	MHBS704680*J#
6,8	24	44	41,5	1,2	37,5	10,2	41	278,8	14,5	11,5	8,5	5,9	MHBS704680*JSD
6,8	24	44	41,5	-	-	-	41	278,8	16	12,5	9,5	5,7	MHBS704680*§§
7,5	24	44	41,5	1,2	37,5	-	41	307,5	14	11,5	8,5	6,1	MHBS704750*J#
7,5	24	44	41,5	1,2	37,5	10,2	41	307,5	16	12,5	9	5,5	MHBS704750*JSD
7,5	24	44	41,5	-	-	-	41	307,5	17,5	13,5	10	5,3	MHBS704750*§§
7,5	28	37	42,5	1,2	37,5	-	41	307,5	13	10,5	7,5	6,1	MHBS704750*J#A
7,5	28	37	42,5	1,2	37,5	10,2	41	307,5	14,5	11,5	8	5,5	MHBS704750*JSDA
7,5	28	37	42,5	-	-	-	41	307,5	16	12,5	9	5,3	MHBS704750*§§A
10	30	45	42,5	1,2	37,5	-	41	410	14	13	9,5	5,1	MHBS705100*J#
10	30	45	42,5	1,2	37,5	20,3	41	410	18	14	10,5	4,5	MHBS705100*JSD
10	30	45	42,5	-	-	-	41	410	20	15,5	11,5	4,3	MHBS705100*§§
12	30	45	57,5	1,2	52,5	-	28	336	14	12,5	9	6	MHBS705120*R#
12	30	45	57,5	1,2	52,5	20,3	28	336	17	13,5	9,5	5,4	MHBS705120*RSD
12	30	45	57,5	-	-	-	28	336	18,5	14,5	10	5,2	MHBS705120*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

[2] typical value at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; for operating frequency out of the range, ESR variation from typical data and related different power dissipation must be taken in consideration

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[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

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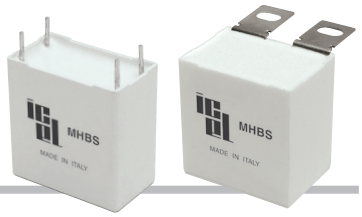

Cn	Dimensions (mm)						du/dt	Ipeak	Irms max.[1]			ESR[2]	ICEL CODE[3]
µF	B	H	L	d	P	P1	V/µs	A	A (+15°C)	A (+10°C)	A (+5°C)	mΩ	-
12,5	35	50	42	1,2	37,5	-	41	512,5	14	14	10,5	4,6	MHBS705125*J#
12,5	35	50	42	1,2	37,5	20,3	41	512,5	20	16	11	4	MHBS705125*JSD
12,5	35	50	42	-	-	-	41	512,5	22	17,5	12	3,8	MHBS705125*§§
15	30	45	57,5	1,2	52,5	-	28	420	14	13	10	5,4	MHBS705150*R#
15	30	45	57,5	1,2	52,5	20,3	28	420	18	14,5	10,5	4,8	MHBS705150*RSD
15	30	45	57,5	-	-	-	28	420	19,5	15,5	11,5	4,6	MHBS705150*§§
20	35	50	57,5	1,2	52,5	-	28	560	14	14	11,5	4,6	MHBS705200*R#
20	35	50	57,5	1,2	52,5	20,3	28	560	21,5	17,5	12	4	MHBS705200*RSD
20	35	50	57,5	-	-	-	28	560	23,5	19	13,5	3,8	MHBS705200*§§
25	38	57,5	57,5	1,2	52,5	20,3	28	700	23	19	13,5	3,6	MHBS705250*RSD
25	38	57,5	57,5	1,2	52,5	10,2	28	700	24	19,5	14	3,4	MHBS705250*RST
25	38	57,5	57,5	-	-	-	28	700	26	21	15	3,4	MHBS705250*§§

[1] at f = 10kHz÷60kHz for P = 27.5mm, at f = 10kHz÷45kHz for P = 37.5mm, at f = 10kHz÷30kHz for P = 52.5mm; Irms rating for ΔT/Ta (Ta = T ambient) = +15°C typical is the absolute max. Irms applicable (ratings limited by terminals type and execution); for lug terminals execution, the power dissipation capability is calculated considering all the box walls and sealing surface able to dissipate and not in contact with any surface; Irms values are referred to max. tolerance on rated Capacitance = ±10%, for wider C tolerances, ESR variation from typical data and related different power dissipation must be taken in consideration

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[4] Upon request only

[5] Not available with tolerance on capacitance < ±10%

[6] Not suitable for across the line applications

Warning: this specification must be completed with the data given in the "General technical information" chapter