SMD Power Inductors - MS Series

Meisongbei



Features

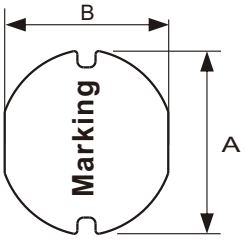
- Ferrite drum core construction.
- Magnetically unshielded
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor application.
- Custom inductors are available to meet your exact requirements.

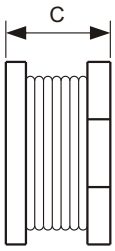
General Specifications

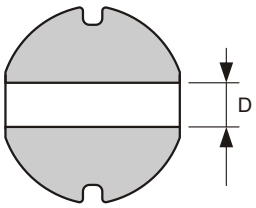
- Storage temp range: -40°C to +125°C
- Operating temp range: -40°C to +125°C

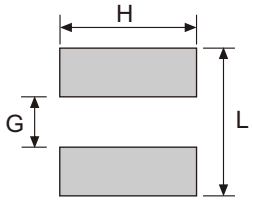
RoHS COMPLIANT | REACH COMPLIANT | Halogen Free

Shape and Dimensions (Unit:mm)



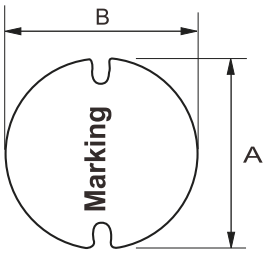


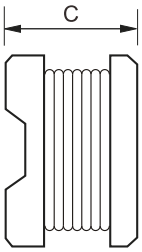


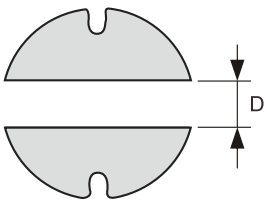


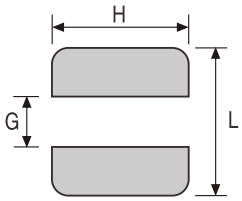
Recommended Layout

Type	A ± 0.3	B ± 0.3	C ± 0.3	D (Ref)	G (Ref)	H (Ref)	L (Ref)
MS32	3.5	3.0	2.1	1.0	0.9	3.5	4
MS43	4.5	4.0	3.2	1.6	1.5	4.5	5
MS52	5.6	5.2	2.5	2.1	1.7	5.5	6
MS53	5.6	5.2	3.0	2.1	1.7	5.5	6
MS54	5.6	5.2	4.5	2.1	1.7	5.5	6
MS73	7.5	7.0	3.5	2.5	2.0	7.5	8
MS75	7.5	7.0	5.0	2.5	2.0	7.5	8
MS104	10.0	9.0	4.0	3.0	2.5	9.5	10
MS105	10.0	9.0	5.4	3.0	2.5	9.5	10









Recommended Layout

Type	A ± 0.3	B ± 0.3	C ± 0.3	D (Ref)	G (Ref)	H (Ref)	L (Ref)
MS1307	13.0	13.0	7.0	5.0	4.5	14.0	14.0

Electrical Characteristics For MS32 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS32-1R0M	1.0 ±20%	0.07	2.08
MS32-2R2M	2.2 ±20%	0.13	1.39
MS32-2R7M	2.7 ±20%	0.14	1.32
MS32-3R3M	3.3 ±20%	0.20	1.25
MS32-3R9M	3.9 ±20%	0.21	1.20
MS32-4R7M	4.7 ±20%	0.33	1.03
MS32-5R6M	5.6 ±20%	0.35	0.91
MS32-6R8M	6.8 ±20%	0.38	0.85
MS32-8R2M	8.2 ±20%	0.43	0.82
MS32-100M	10 ±20%	0.50	0.74
MS32-120M	12 ±20%	0.65	0.64
MS32-150M	15 ±20%	0.82	0.60
MS32-180M	18 ±20%	0.90	0.54
MS32-220M	22 ±20%	1.14	0.50
MS32-270M	27 ±20%	1.39	0.43
MS32-330K	33 ±10%	1.55	0.40
MS32-390K	39 ±10%	2.15	0.37
MS32-470K	47 ±10%	2.44	0.36
MS32-560K	56 ±10%	2.68	0.31
MS32-680K	68 ±10%	3.05	0.30
MS32-820K	82 ±10%	3.48	0.28
MS32-101K	100 ±10%	4.10	0.22
MS32-121K	120 ±10%	4.89	0.20
MS32-151K	150 ±10%	6.08	0.17
MS32-181K	180 ±10%	7.26	0.15
MS32-221K	220 ±10%	8.83	0.11
MS32-271K	270 ±10%	10.8	0.074
MS32-331K	330 ±10%	13.0	0.065
MS32-391K	390 ±10%	15.2	0.060
MS32-471K	470 ±10%	17.5	0.045
MS32-561K	560 ±10%	22.5	0.030
MS32-471K	470 ±10%	17.5	0.045
MS32-561K	560 ±10%	22.5	0.030

Electrical Characteristics For MS43 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS43-1R0M	1.0 ±20%	0.033	3.80
MS43-2R2M	2.2 ±20%	0.047	2.60
MS43-2R7M	2.7 ±20%	0.052	2.43
MS43-3R3M	3.3 ±20%	0.058	2.15
MS43-4R7M	4.7 ±20%	0.094	1.70
MS43-6R8M	6.8 ±20%	0.117	1.43
MS43-8R2M	8.2 ±20%	0.132	1.26
MS43-100M	10 ±20%	0.182	1.15
MS43-120M	12 ±20%	0.210	1.05
MS43-150M	15 ±20%	0.235	0.92
MS43-180M	18 ±20%	0.338	0.84
MS43-220M	22 ±20%	0.378	0.76
MS43-270K	27 ±10%	0.522	0.71
MS43-330K	33 ±10%	0.540	0.64
MS43-390K	39 ±10%	0.587	0.59
MS43-470K	47 ±10%	0.844	0.54
MS43-560K	56 ±10%	0.937	0.50
MS43-680K	68 ±10%	1.170	0.48
MS43-820K	82 ±10%	1.200	0.46
MS43-101K	100 ±10%	1.520	0.44
MS43-121K	120 ±10%	1.800	0.43
MS43-151K	150 ±10%	2.000	0.42
MS43-181K	180 ±10%	3.200	0.38
MS43-221K	220 ±10%	3.400	0.36
MS43-271K	270 ±10%	3.900	0.34
MS43-331K	330 ±10%	5.300	0.28

Electrical Characteristics For MS52 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS52-2R2M	2.2 ±20%	0.039	2.16
MS52-2R7M	2.7 ±20%	0.044	2.08
MS52-3R3M	3.3 ±20%	0.049	1.90
MS52-3R9M	3.9 ±20%	0.056	1.84
MS52-4R7M	4.7 ±20%	0.062	1.60
MS52-5R6M	5.6 ±20%	0.078	1.44
MS52-6R8M	6.8 ±20%	0.091	1.36
MS52-8R2M	8.2 ±20%	0.103	1.12
MS52-100M	10 ±20%	0.133	1.04
MS52-120M	12 ±20%	0.148	0.96
MS52-150M	15 ±20%	0.166	0.88
MS52-180M	18 ±20%	0.213	0.77
MS52-220M	22 ±20%	0.248	0.73
MS52-270M	27 ±20%	0.328	0.64
MS52-330K	33 ±10%	0.378	0.58
MS52-390K	39 ±10%	0.438	0.54
MS52-470K	47 ±10%	0.546	0.49
MS52-560K	56 ±10%	0.621	0.45
MS52-680K	68 ±10%	0.715	0.41
MS52-820K	82 ±10%	1.00	0.35
MS52-101K	100 ±10%	1.07	0.35
MS52-121K	120 ±10%	1.25	0.32
MS52-151K	150 ±10%	1.66	0.26
MS52-181K	180 ±10%	1.90	0.23
MS52-221K	220 ±10%	2.44	0.21
MS52-271K	270 ±10%	2.73	0.19

Electrical Characteristics For MS53 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS53-1R0M	1.0 ±20%	0.038	4.50
MS53-2R2M	2.2 ±20%	0.045	3.50
MS53-3R3M	3.3 ±20%	0.055	2.80
MS53-3R9M	3.9 ±20%	0.064	2.60
MS53-4R7M	4.7 ±20%	0.072	2.50
MS53-5R6M	5.6 ±20%	0.084	2.40
MS53-6R8M	6.8 ±20%	0.090	2.20
MS53-8R2M	8.2 ±20%	0.10	2.00
MS53-100M	10 ±20%	0.12	1.80
MS53-120M	12 ±20%	0.13	1.75
MS53-150M	15 ±20%	0.15	1.70
MS53-180M	18 ±20%	0.18	1.60
MS53-220M	22 ±20%	0.22	1.50
MS53-270M	27 ±20%	0.24	1.40
MS53-330K	33 ±10%	0.30	1.10
MS53-390K	39 ±10%	0.40	1.00
MS53-470K	47 ±10%	0.43	0.90
MS53-560K	56 ±10%	0.50	0.85
MS53-680K	68 ±10%	0.60	0.80
MS53-820K	82 ±10%	0.80	0.65
MS53-101K	100 ±10%	0.90	0.60
MS53-121K	120 ±10%	1.0	0.58
MS53-151K	150 ±10%	1.3	0.43
MS53-181K	180 ±10%	1.5	0.41
MS53-221K	220 ±10%	2.0	0.38
MS53-271K	270 ±10%	2.5	0.35
MS53-331K	330 ±10%	3.2	0.28
MS53-391K	390 ±10%	3.5	0.26
MS53-471K	470 ±10%	4.2	0.20
MS53-561K	560 ±10%	4.5	0.19
MS53-681K	680 ±10%	6.5	0.18
MS53-821K	820 ±10%	7.5	0.15
MS53-102K	1000 ±10%	8.0	0.13

Electrical Characteristics For MS54 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS54-1R0M	1.0 ±20%	0.017	5.0
MS54-1R5M	1.5 ±20%	0.020	4.8
MS54-2R2M	2.2 ±20%	0.025	4.6
MS54-2R7M	2.7 ±20%	0.030	4.4
MS54-3R3M	3.3 ±20%	0.033	4.0
MS54-3R9M	3.9 ±20%	0.036	3.7
MS54-4R7M	4.7 ±20%	0.040	3.3
MS54-6R8M	6.8 ±20%	0.080	3.0
MS54-100M	10 ±20%	0.100	1.44
MS54-120M	12 ±20%	0.120	1.40
MS54-150M	15 ±20%	0.140	1.30
MS54-180M	18 ±20%	0.150	1.23
MS54-220M	22 ±20%	0.180	1.11
MS54-270M	27 ±20%	0.200	0.97
MS54-330K	33 ±10%	0.230	0.88
MS54-390K	39 ±10%	0.320	0.80
MS54-470K	47 ±10%	0.370	0.72
MS54-560K	56 ±10%	0.420	0.68
MS54-680K	68 ±10%	0.460	0.61
MS54-820K	82 ±10%	0.600	0.58
MS54-101K	100 ±10%	0.700	0.52
MS54-121K	120 ±10%	0.930	0.48
MS54-151K	150 ±10%	1.100	0.40
MS54-181K	180 ±10%	1.380	0.38
MS54-221K	220 ±10%	1.570	0.35
MS54-271K	270 ±10%	1.650	0.32
MS54-331K	330 ±10%	1.700	0.28
MS54-391K	390 ±10%	1.800	0.26
MS54-471K	470 ±10%	2.300	0.23
MS54-561K	560 ±10%	2.500	0.20
MS54-681K	680 ±10%	3.600	0.19
MS54-821K	820 ±10%	4.500	1.60
MS54-102K	1000 ±10%	5.250	0.14

Electrical Characteristics For MS73 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS73-1R0M	1.0 ±20%	0.018	7.0
MS73-1R5M	1.5 ±20%	0.020	6.0
MS73-2R2M	2.2 ±20%	0.023	5.0
MS73-3R3M	3.3 ±20%	0.025	4.0
MS73-4R7M	4.7 ±20%	0.039	3.5
MS73-6R8M	6.8 ±20%	0.040	2.8
MS73-100M	10 ±20%	0.080	1.44
MS73-120M	12 ±20%	0.090	1.39
MS73-150M	15 ±20%	0.104	1.24
MS73-180M	18 ±20%	0.112	1.12
MS73-220M	22 ±20%	0.130	1.07
MS73-270M	27 ±20%	0.153	0.94
MS73-330K	33 ±10%	0.170	0.85
MS73-390K	39 ±10%	0.220	0.74
MS73-470K	47 ±10%	0.252	0.68
MS73-560K	56 ±10%	0.280	0.64
MS73-680K	68 ±10%	0.332	0.59
MS73-820K	82 ±10%	0.410	0.54
MS73-101K	100 ±10%	0.480	0.51
MS73-121K	120 ±10%	0.540	0.49
MS73-151K	150 ±10%	0.755	0.40
MS73-221K	220 ±10%	1.200	0.31
MS73-331K	330 ±10%	1.500	0.28
MS73-391K	390 ±10%	2.700	0.25
MS73-471K	470 ±10%	3.000	0.22
MS73-681K	680 ±10%	3.200	0.13
MS73-102K	1000 ±10%	4.800	0.08

Electrical Characteristics For MS75 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS75-1R0M	1.0 ±20%	0.013	7.5
MS75-2R2M	2.2 ±20%	0.023	5.3
MS75-3R3M	3.3 ±20%	0.028	4.5
MS75-4R7M	4.7 ±20%	0.045	4.0
MS75-6R8M	6.8 ±20%	0.058	3.2
MS75-8R2M	8.2 ±20%	0.070	2.8
MS75-100M	10 ±20%	0.070	2.30
MS75-120M	12 ±20%	0.080	2.00
MS75-150M	15 ±20%	0.090	1.80
MS75-180M	18 ±20%	0.100	1.60
MS75-220M	22 ±20%	0.110	1.50
MS75-270M	27 ±20%	0.120	1.30
MS75-330K	33 ±10%	0.130	1.20
MS75-390K	39 ±10%	0.160	1.10
MS75-470K	47 ±10%	0.180	1.10
MS75-560K	56 ±10%	0.240	0.94
MS75-680K	68 ±10%	0.280	0.85
MS75-820K	82 ±10%	0.370	0.78
MS75-101K	100 ±10%	0.430	0.72
MS75-121K	120 ±10%	0.470	0.66
MS75-151K	150 ±10%	0.640	0.58
MS75-181K	180 ±10%	0.710	0.51
MS75-221K	220 ±10%	0.960	0.49
MS75-371K	270 ±10%	1.110	0.42
MS75-331K	330 ±10%	1.260	0.40
MS75-391K	390 ±10%	1.770	0.36
MS75-471K	470 ±10%	1.960	0.34
MS75-561K	560 ±10%	2.000	0.33
MS75-681K	680 ±10%	2.200	0.32
MS75-821K	820 ±10%	2.900	0.25
MS75-102K	1000 ±10%	3.900	0.20
MS75-222K	2200 ±10%	10.00	0.20
MS75-472K	4700 ±10%	20.00	0.14
MS75-333K	33000 ±10%	110.0	0.03

Electrical Characteristics For MS104 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS104-1R0M	1.0 ±20%	0.012	7.00
MS104-2R2M	2.2 ±20%	0.020	5.40
MS104-3R3M	3.3 ±20%	0.028	5.20
MS104-4R7M	4.7 ±20%	0.038	4.50
MS104-5R6M	5.6 ±20%	0.040	3.80
MS104-6R8M	6.8 ±20%	0.042	3.00
MS104-8R2M	8.2 ±20%	0.048	2.60
MS104-100M	10 ±20%	0.053	2.38
MS104-120M	12 ±20%	0.061	2.13
MS104-150M	15 ±20%	0.070	1.87
MS104-180M	18 ±20%	0.081	1.73
MS104-220M	22 ±20%	0.088	1.60
MS104-270M	27 ±20%	0.100	1.44
MS104-330K	33 ±10%	0.120	1.26
MS104-390K	39 ±10%	0.151	1.20
MS104-470K	47 ±10%	0.170	1.10
MS104-560K	56 ±10%	0.200	1.01
MS104-680K	68 ±10%	0.223	0.91
MS104-820K	82 ±10%	0.252	0.85
MS104-101K	100 ±10%	0.344	0.74
MS104-121K	120 ±10%	0.394	0.69
MS104-151K	150 ±10%	0.544	0.61
MS104-181K	180 ±10%	0.621	0.56
MS104-221K	220 ±10%	0.721	0.53
MS104-271K	270 ±10%	0.949	0.45
MS104-331K	330 ±10%	1.100	0.42
MS104-391K	390 ±10%	1.245	0.38
MS104-471K	470 ±10%	1.526	0.35
MS104-561K	560 ±10%	1.904	0.32
MS104-681K	680 ±10%	2.200	0.31
MS104-821K	820 ±10%	2.700	0.30
MS104-102K	1000 ±10%	3.500	0.29

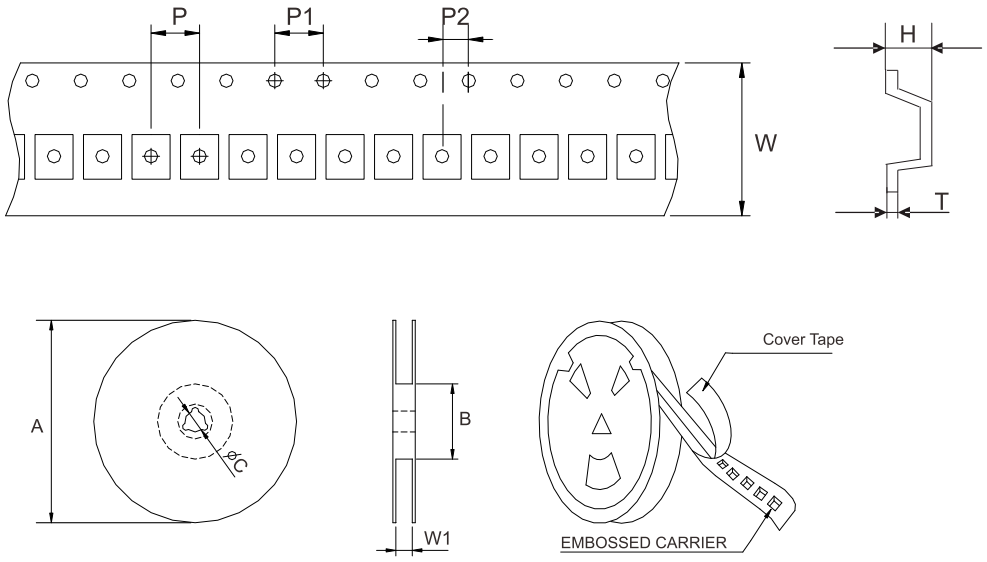
Electrical Characteristics For MS105 Series

Part Number	Inductance [uH]	DCR (max) [Ω]	Rated Current (max) [A]
MS105-1R0M	1.0 ±20%	0.009	8.60
MS105-2R2M	2.2 ±20%	0.016	7.20
MS105-3R3M	3.3 ±20%	0.018	6.50
MS105-4R7M	4.7 ±20%	0.020	5.50
MS105-6R8M	6.8 ±20%	0.040	4.20
MS105-8R2M	8.2 ±20%	0.050	3.50
MS105-100M	10 ±20%	0.06	2.60
MS105-120M	12 ±20%	0.07	2.45
MS105-150M	15 ±20%	0.08	2.27
MS105-180M	18 ±20%	0.09	2.15
MS105-220M	22 ±20%	0.10	1.95
MS105-270M	27 ±20%	0.11	1.76
MS105-330K	33 ±10%	0.12	1.50
MS105-390K	39 ±10%	0.14	1.37
MS105-470K	47 ±10%	0.17	1.28
MS105-560K	56 ±10%	0.19	1.17
MS105-680K	68 ±10%	0.22	1.11
MS105-820K	82 ±10%	0.25	1.00
MS105-101K	100 ±10%	0.35	0.97
MS105-121K	120 ±10%	0.40	0.89
MS105-151K	150 ±10%	0.47	0.78
MS105-181K	180 ±10%	0.63	0.72
MS105-221K	220 ±10%	0.73	0.66
MS105-271K	270 ±10%	0.97	0.57
MS105-331K	330 ±10%	1.15	0.52
MS105-391K	390 ±10%	1.30	0.48
MS105-471K	470 ±10%	1.48	0.42
MS105-561K	560 ±10%	1.90	0.33
MS105-681K	680 ±10%	2.25	0.28
MS105-821K	820 ±10%	2.55	0.24
MS105-102K	1000 ±10%	3.00	0.20
MS105-222K	2200 ±10%	5.30	0.18
MS105-123K	12000 ±10%	30.0	0.10

Electrical Characteristics For MS1307 Series

Part Number	Inductance [uH]	DCR (max) [mΩ]	Rated Current (max) [A]
MS1307-1R5M	1.5 ±20%	5	20.0
MS1307-2R2M	2.2 ±20%	6	18.0
MS1307-2R7M	2.7 ±20%	8	16.0
MS1307-3R3M	3.3 ±20%	9	15.0
MS1307-4R7M	4.7 ±20%	10	13.0
MS1307-5R6M	5.6 ±20%	15	11.0
MS1307-6R8M	6.8 ±20%	17	10.5
MS1307-8R2M	8.2 ±20%	19	9.8
MS1307-100M	10 ±20%	21	9.2
MS1307-120M	12 ±20%	30	8.0
MS1307-150M	15 ±20%	34	7.5
MS1307-180M	18 ±20%	36	7.0
MS1307-220M	22 ±20%	47	6.5
MS1307-270M	27 ±20%	60	5.5
MS1307-330K	33 ±10%	65	5.0
MS1307-390K	39 ±10%	75	4.6
MS1307-470K	47 ±10%	82	4.2
MS1307-560K	56 ±10%	95	3.8
MS1307-680K	68 ±10%	120	3.5
MS1307-820K	82 ±10%	140	3.2
MS1307-101K	100 ±10%	180	3.0
MS1307-121K	120 ±10%	210	2.8
MS1307-151K	150 ±10%	250	2.6
MS1307-181K	180 ±10%	280	2.3
MS1307-221K	220 ±10%	360	2.1
MS1307-271K	270 ±10%	410	1.8
MS1307-331K	330 ±10%	520	1.6
MS1307-391K	390 ±10%	660	1.5
MS1307-471K	470 ±10%	800	1.4
MS1307-561K	560 ±10%	960	1.3
MS1307-681K	680 ±10%	1200	1.2
MS1307-821K	820 ±10%	1500	1.1
MS1307-102K	1000 ±10%	1700	1.0

Tape & Reel Specifications:



Unit: mm

Type	Quantity PCS / REEL	W	P	P1	P2	H	T	A	B	C	W1
MS32	3000	12.0	8.0	4.0	2.0	2.50	0.35	330	97	13	13.4
MS43	2000	12.0	8.0	4.0	2.0	3.55	0.35	330	97	13	13.4
MS52	2000	16.0	8.0	4.0	2.0	3.30	0.35	330	97	13	17.4
MS53	2000	16.0	8.0	4.0	2.0	3.30	0.35	330	97	13	17.4
MS54	1500	16.0	8.0	4.0	2.0	4.80	0.35	330	97	13	17.4
MS73	1000	16.0	12.0	4.0	2.0	3.80	0.35	330	97	13	17.4
MS75	1000	16.0	12.0	4.0	2.0	5.20	0.35	330	97	13	17.4
MS104	1000	24.0	12.0	4.0	2.0	4.50	0.35	330	97	13	24.4
MS105	1000	24.0	12.0	4.0	2.0	5.80	0.35	330	97	13	24.4
MS1307	400	24.0	16.0	4.0	2.0	7.40	0.35	330	97	13	24.4