SMD Power Inductors - MS Series

Meisongbei

Features

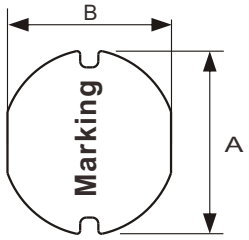
- Ferrite drum core construction.
- Magnetically unshielded
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor application.
- Custom inductors are available to meet your exact requirements.

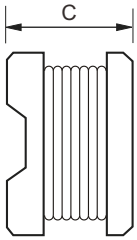
General Specifications

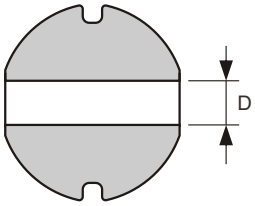
- Storage temp range: -40°C to +125°C
- Operating temp range: -40°C to +125°C

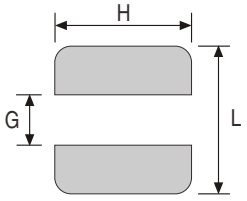
RoHS COMPLIANT | REACH COMPLIANT | Halogen Free

Shape and Dimensions (Unit:mm)



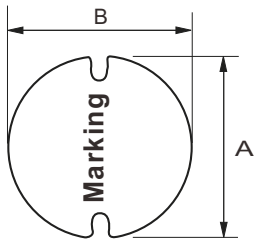


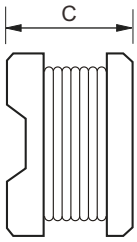


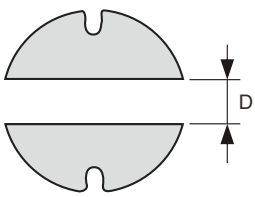


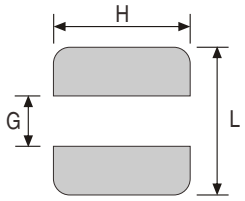
Recommended Layout

Type	A ± 0.3	B ± 0.3	C ± 0.3	D	G	H	L
MS32	3.5	3.0	2.1	1.0	0.8	3.5	4
MS43	4.5	4.0	3.2	1.6	1.5	4.5	5
MS52	5.8	5.2	2.1	2.1	1.7	5.5	6
MS53	5.8	5.2	3.0	2.1	1.7	5.5	6
MS54	5.8	5.2	4.5	2.1	1.7	5.5	6
MS73	7.8	7.0	3.5	2.5	2.0	7.5	8
MS75	7.8	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	G	H	L
MS1307	13.0	13.0	7.0	5.0	4.5	14	14

Electrical Characteristics For MS32 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40℃, whichever is lower (Ta=25℃)

Electrical Characteristics For MS43 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40℃, whichever is lower (Ta=25℃)

Electrical Characteristics For MS52 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40˚C, whichever is lower (Ta=25˚C)

Electrical Characteristics For MS53 Series

Part Number	Inductance (uH)	DCR (Ω) Max.	Idc (A) Max.
MS53-1R0M	1.0	0.038	4.50
MS53-2R2M	2.2	0.045	3.50
MS53-3R3M	3.3	0.055	2.80
MS53-3R9M	3.9	0.064	2.60
MS53-4R7M	4.7	0.072	2.50
MS53-5R6M	5.6	0.084	2.40
MS53-6R8M	6.8	0.090	2.20
MS53-8R2M	8.2	0.100	2.00
MS53-100M	10	0.120	1.80
MS53-120M	12	0.130	1.75
MS53-150M	15	0.150	1.70
MS53-180M	18	0.180	1.60
MS53-220M	22	0.220	1.50
MS53-270M	27	0.240	1.40
MS53-330K	33	0.300	1.10
MS53-390K	39	0.400	1.00
MS53-470K	47	0.430	0.90
MS53-560K	56	0.500	0.85
MS53-680K	68	0.600	0.80
MS53-820K	82	0.800	0.65
MS53-101K	100	0.900	0.60
MS53-121K	120	1.000	0.58
MS53-151K	150	1.300	0.43
MS53-181K	180	1.500	0.41
MS53-221K	220	2.000	0.38
MS53-271K	270	2.500	0.35
MS53-331K	330	3.200	0.28
MS53-391K	390	3.500	0.26
MS53-471K	470	4.200	0.20
MS53-561K	560	4.500	0.19
MS53-681K	680	6.500	0.18
MS53-821K	820	7.500	0.15
MS53-102K	1000	8.000	0.13

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40°C, whichever is lower (Ta=25°C)

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Electrical Characteristics For MS54 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40℃, whichever is lower (Ta=25℃)

Electrical Characteristics For MS73 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40˚C, whichever is lower (Ta=25˚C)

Electrical Characteristics For MS75 Series

Part Number	Inductance (uH)	DCR (Ω) Max.	Idc (A) Max.
MS75-1R0M	1.0	0.013	7.5
MS75-2R2M	2.2	0.023	5.3
MS75-3R3M	3.3	0.028	4.5
MS75-4R7M	4.7	0.045	4.0
MS75-6R8M	6.8	0.058	3.2
MS75-8R2M	8.2	0.070	2.8
MS75-100M	10	0.070	2.30
MS75-120M	12	0.080	2.00
MS75-150M	15	0.090	1.80
MS75-180M	18	0.100	1.60
MS75-220M	22	0.110	1.50
MS75-270M	27	0.120	1.30
MS75-330K	33	0.130	1.20
MS75-390K	39	0.160	1.10
MS75-470K	47	0.180	1.10
MS75-560K	56	0.240	0.94
MS75-680K	68	0.280	0.85
MS75-820K	82	0.370	0.78
MS75-101K	100	0.430	0.72
MS75-121K	120	0.470	0.66
MS75-151K	150	0.640	0.58
MS75-181K	180	0.710	0.51
MS75-221K	220	0.960	0.49
MS75-371K	270	1.110	0.42
MS75-331K	330	1.260	0.40
MS75-391K	390	1.770	0.36
MS75-471K	470	1.960	0.34
MS75-561K	560	2.000	0.33
MS75-681K	680	2.200	0.32
MS75-821K	820	2.900	0.25
MS75-102K	1000	3.900	0.20
MS75-222K	2200	10.00	0.20
MS75-472K	4700	20.00	0.14
MS75-333K	33000	110.00	0.03

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40˚C, whichever is lower (Ta=25˚C)

Electrical Characteristics For MS104 Series

Part Number	Inductance (uH)	DCR (Ω) Max.	Idc (A) Max.
MS104-1R0M	1.0	0.012	7.00
MS104-2R2M	2.2	0.020	5.40
MS104-3R3M	3.3	0.028	5.20
MS104-4R7M	4.7	0.038	4.50
MS104-5R6M	5.6	0.040	3.80
MS104-6R8M	6.8	0.042	3.00
MS104-8R2M	8.2	0.048	2.60
MS104-100M	10	0.053	2.38
MS104-120M	12	0.061	2.13
MS104-150M	15	0.070	1.87
MS104-180M	18	0.081	1.73
MS104-220M	22	0.088	1.60
MS104-270M	27	0.100	1.44
MS104-330K	33	0.120	1.26
MS104-390K	39	0.151	1.20
MS104-470K	47	0.170	1.10
MS104-560K	56	0.200	1.01
MS104-680K	68	0.223	0.91
MS104-820K	82	0.252	0.85
MS104-101K	100	0.344	0.74
MS104-121K	120	0.394	0.69
MS104-151K	150	0.544	0.61
MS104-181K	180	0.621	0.56
MS104-221K	220	0.721	0.53
MS104-371K	270	0.949	0.45
MS104-331K	330	1.100	0.42
MS104-391K	390	1.245	0.38
MS104-471K	470	1.526	0.35
MS104-561K	560	1.904	0.32
MS104-681K	680	2.200	0.31
MS104-821K	820	2.700	0.30
MS104-102K	1000	3.500	0.29

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40℃, whichever is lower (Ta=25℃)

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Electrical Characteristics For MS105 Series

Part Number	Inductance (uH)	DCR (Ω) Typ	Idc (A) Max.
MS105-1R0M	1.0	0.009	8.60
MS105-2R2M	2.2	0.016	7.20
MS105-3R3M	3.3	0.018	6.50
MS105-4R7M	4.7	0.020	5.50
MS105-6R8M	6.8	0.040	4.20
MS105-8R2M	8.2	0.050	3.50
MS105-100M	10	0.06	2.60
MS105-120M	12	0.07	2.45
MS105-150M	15	0.08	2.27
MS105-180M	18	0.09	2.15
MS105-220M	22	0.10	1.95
MS105-270M	27	0.11	1.76
MS105-330K	33	0.12	1.50
MS105-390K	39	0.14	1.37
MS105-470K	47	0.17	1.28
MS105-560K	56	0.19	1.17
MS105-680K	68	0.22	1.11
MS105-820K	82	0.25	1.00
MS105-101K	100	0.35	0.97
MS105-121K	120	0.40	0.89
MS105-151K	150	0.47	0.78
MS105-181K	180	0.63	0.72
MS105-221K	220	0.73	0.66
MS105-371K	270	0.97	0.57
MS105-331K	330	1.15	0.52
MS105-391K	390	1.30	0.48
MS105-471K	470	1.48	0.42
MS105-561K	560	1.90	0.33
MS105-681K	680	2.25	0.28
MS105-821K	820	2.55	0.24
MS105-102K	1000	3.00	0.20
MS105-222K	2200	5.30	0.18
MS105-123K	12000	30.00	0.10

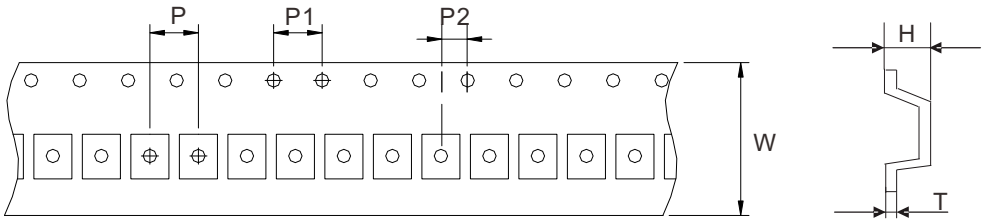
- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Saturation Current (Isat): DC current at which the inductance drops 10% from its value without current

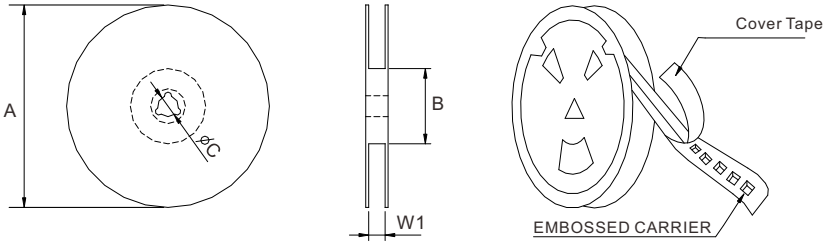
Electrical Characteristics For MS1307 Series

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

- Inductance tested at 1kHz, 0.25V.
- Inductance tolerance: M:±20%, K: ±10%
- Idc: The DC current at which the inductance decrease 10% of its initial value without current or when △t＝40℃, whichever is lower (Ta=25℃)

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	500	24.0	16.0	4.0	2.0	7.40	0.35	330	97	13	24.4