

# SPECIFICATIONS

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Customer : \_\_\_\_\_

Customer P/N: MSRH-D Series

Drawing No : \_\_\_\_\_

Quantity : 0 Pcs. Date : 2017/09/06

Chilisin P/N : MSRH-D Series/參照

<b>SPECIFICATION</b>	
<b>ACCEPTED BY:</b>	
<b>COMPONENT ENGINEER</b>	
<b>ELECTRICAL ENGINEER</b>	
<b>MECHANICAL ENGINEER</b>	
<b>APPROVED</b>	
<b>REJECTED</b>	

**For Customer approval Only**

Qualification Status:     Full     Restricted     Rejected

Approved By	Verified By	Re-checked By	Checked By

Comments: \_\_\_\_\_

**Meled Electronics Co., Ltd.**

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**Version change history**

Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
01	/	New release	/	/

## 1. Features

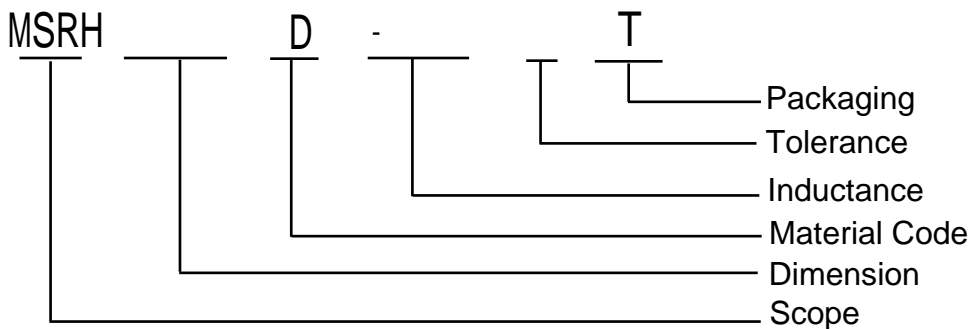
- Low profile
- Magnetic shielded
- SMT type, suitable for reflow soldering.



## 2. APPLICATIONS

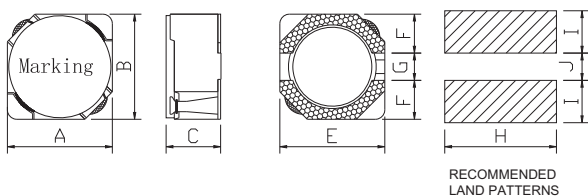
- Portable communication equipment
- Notebook Computer
- DC/DC converters etc.

## 3. PRODUCT IDENTIFICATION

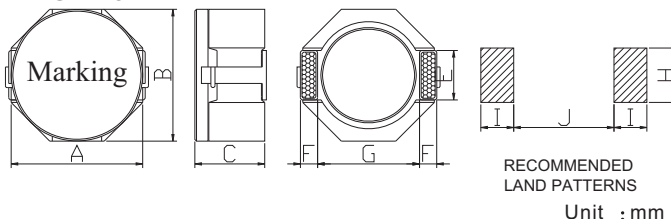


## 4. Shape and Dimensions

MSRH3D\*\*~MSRH6D\*\*



MSRH8D\*\*



RECOMMENDED LAND PATTERNS

RECOMMENDED LAND PATTERNS

Unit : mm

Part	A	B	C	E(typ.)	F(typ.)	G(typ.)	H(typ.)	I(typ.)	H(typ.)
MSRH3D18	3.8±0.2	3.8±0.2	1.8±0.2	3.8	1.3	1.2	4.5	1.5	1.0
MSRH3D28	3.8±0.2	3.8±0.2	2.8±0.2	3.8	1.3	1.2	4.5	1.5	1.0
MSRH4D18	4.7±0.3	4.7±0.3	1.8±0.2	4.7	1.6	1.5	5.3	1.9	1.5
MSRH4D28	4.7±0.3	4.7±0.3	2.8±0.2	4.7	1.6	1.5	5.3	1.9	1.5
MSRH5D18	5.7±0.3	5.7±0.3	1.8±0.2	5.7	1.85	2.0	6.3	2.15	2.0
MSRH5D28	5.7±0.3	5.7±0.3	2.8±0.2	5.7	1.85	2.0	6.3	2.15	2.0
MSRH6D28	6.7±0.3	6.7±0.3	2.8±0.2	6.7	2.35	2.0	7.3	2.0	2.65
MSRH6D38	6.7±0.3	6.7±0.3	3.8±0.2	6.7	2.35	2.0	7.3	2.0	2.65
MSRH8D28	8.0±0.3	8.0±0.3	2.8±0.2	2.5	1.2	6.3	2.8	2.0	6.1
MSRH8D38	8.0±0.3	8.0±0.3	3.8±0.2	2.5	1.2	6.3	2.8	2.0	6.1
MSRH8D43	8.0±0.3	8.0±0.3	4.3±0.2	2.5	1.2	6.3	2.8	2.0	6.1

**Appendix A: Electrical Characteristics**

**I. MSRH3D18 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS&TEST CONDITIONS**

Part No.	L (μ H)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH3D18-1R0NT	1.0	±30%	100kHz	0.050	2.00
MSRH3D18-1R5NT	1.5	±30%	100kHz	0.055	1.80
MSRH3D18-2R2NT	2.2	±30%	100kHz	0.063	1.30
MSRH3D18-3R3NT	3.3	±30%	100kHz	0.069	1.20
MSRH3D18-4R7NT	4.7	±30%	100kHz	0.107	0.85
MSRH3D18-5R6NT	5.6	±30%	100kHz	0.151	0.82
MSRH3D18-6R8NT	6.8	±30%	100kHz	0.188	0.80
MSRH3D18-8R2NT	8.2	±30%	100kHz	0.195	0.75
MSRH3D18-100MT	10	±20%	100kHz	0.205	0.65
MSRH3D18-150MT	15	±20%	100kHz	0.302	0.55
MSRH3D18-220MT	22	±20%	100kHz	0.420	0.43

**II. MSRH3D28 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS&TEST CONDITIONS**

Part No.	L (μ H)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH3D28-1R0NT	1.0	±30%	100kHz	0.054	2.10
MSRH3D28-2R2NT	2.2	±30%	100kHz	0.080	1.95
MSRH3D28-3R3NT	3.3	±30%	100kHz	0.085	1.70
MSRH3D28-4R7NT	4.7	±30%	100kHz	0.095	1.40
MSRH3D28-5R6NT	5.6	±30%	100kHz	0.106	1.30
MSRH3D28-6R8NT	6.8	±30%	100kHz	0.116	1.20
MSRH3D28-8R2NT	8.2	±30%	100kHz	0.118	1.10
MSRH3D28-100MT	10	±30%	100kHz	0.200	0.90
MSRH3D28-150MT	15	±20%	100kHz	0.238	0.70
MSRH3D28-220MT	22	±20%	100kHz	0.251	0.60
MSRH3D28-330MT	33	±20%	100kHz	0.383	0.50
MSRH3D28-470MT	47	±20%	100kHz	0.599	0.42
MSRH3D28-560MT	56	±20%	100kHz	0.706	0.39
MSRH3D28-680MT	68	±20%	100kHz	0.790	0.36
MSRH3D28-820MT	82	±20%	100kHz	0.901	0.33

**III. MSRH4D18 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS**

Part No.	L (μ H)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH4D18-1R2NT	1.2	±30%	100kHz	0.045	1.72
MSRH4D18-1R5NT	1.5	±30%	100kHz	0.060	1.45
MSRH4D18-2R2NT	2.2	±30%	100kHz	0.075	1.32
MSRH4D18-3R3NT	3.3	±30%	100kHz	0.085	0.90
MSRH4D18-4R7NT	4.7	±30%	100kHz	0.090	0.85
MSRH4D18-5R6NT	5.6	±30%	100kHz	0.107	0.80
MSRH4D18-6R8NT	6.8	±30%	100kHz	0.120	0.76
MSRH4D18-8R2NT	8.2	±30%	100kHz	0.160	0.69
MSRH4D18-100MT	10	±20%	100kHz	0.200	0.61
MSRH4D18-120MT	12	±20%	100kHz	0.210	0.56
MSRH4D18-150MT	15	±20%	100kHz	0.240	0.50
MSRH4D18-180MT	18	±20%	100kHz	0.338	0.48
MSRH4D18-220MT	22	±20%	100kHz	0.397	0.41
MSRH4D18-330MT	33	±20%	100kHz	0.455	0.40
MSRH4D18-470MT	47	±20%	100kHz	0.740	0.39
MSRH4D18-560MT	56	±20%	100kHz	0.902	0.36



### III. MSRH4D28 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH4D28-1R0NT	1.0	±30%	100kHz	0.020	3.00
MSRH4D28-1R5NT	1.5	±30%	100kHz	0.033	2.56
MSRH4D28-1R8NT	1.8	±30%	100kHz	0.043	2.35
MSRH4D28-2R2NT	2.2	±30%	100kHz	0.045	2.04
MSRH4D28-3R3NT	3.3	±30%	100kHz	0.065	1.57
MSRH4D28-4R7NT	4.7	±30%	100kHz	0.072	1.32
MSRH4D28-5R6NT	5.6	±30%	100kHz	0.075	1.30
MSRH4D28-6R8NT	6.8	±30%	100kHz	0.108	1.12
MSRH4D28-8R2NT	8.2	±30%	100kHz	0.117	1.04
MSRH4D28-100MT	10	±20%	100kHz	0.128	1.00
MSRH4D28-150MT	15	±20%	100kHz	0.180	0.80
MSRH4D28-180MT	18	±20%	100kHz	0.200	0.73
MSRH4D28-220MT	22	±20%	100kHz	0.235	0.70
MSRH4D28-330MT	33	±20%	100kHz	0.378	0.56
MSRH4D28-470MT	47	±20%	100kHz	0.587	0.48
MSRH4D28-560MT	56	±20%	100kHz	0.622	0.42
MSRH4D28-680MT	68	±20%	100kHz	0.690	0.38
MSRH4D28-820MT	82	±20%	100kHz	0.792	0.33
MSRH4D28-101MT	100	±20%	100kHz	1.020	0.29
MSRH4D28-151MT	150	±20%	100kHz	1.350	0.28

### IV. MSRH5D18 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH5D18-1R0NT	1.0	±30%	10kHz	0.028	3.00
MSRH5D18-2R2NT	2.2	±30%	10kHz	0.041	2.45
MSRH5D18-3R3NT	3.3	±30%	10kHz	0.055	2.20
MSRH5D18-4R7NT	4.7	±30%	10kHz	0.070	1.80
MSRH5D18-5R6NT	5.6	±30%	10kHz	0.076	1.60
MSRH5D18-6R8NT	6.8	±30%	10kHz	0.095	1.42
MSRH5D18-8R2NT	8.2	±30%	10kHz	0.108	1.30
MSRH5D18-100MT	10	±20%	10kHz	0.124	1.20
MSRH5D18-220MT	22	±20%	10kHz	0.290	0.80
MSRH5D18-330MT	33	±20%	10kHz	0.400	0.60
MSRH5D18-470MT	47	±20%	10kHz	0.595	0.54
MSRH5D18-560MT	56	±20%	10kHz	0.634	0.48
MSRH5D18-680MT	68	±20%	10kHz	0.670	0.44
MSRH5D18-820MT	82	±20%	10kHz	0.978	0.41
MSRH5D18-101MT	100	±20%	10kHz	1.112	0.35

## V.MSRH5D28 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L ( $\mu$ H)	Tolerance	Test Freq.	DCR( $\Omega$ )Max	Isat(A)
MSRH5D28-1R5NT	1.5	$\pm 30\%$	10kHz	0.023	3.00
MSRH5D28-1R8NT	1.8	$\pm 30\%$	10kHz	0.035	2.80
MSRH5D28-2R2NT	2.2	$\pm 30\%$	10kHz	0.036	2.60
MSRH5D28-3R3NT	3.3	$\pm 30\%$	10kHz	0.038	2.30
MSRH5D28-3R9NT	3.9	$\pm 30\%$	10kHz	0.039	2.20
MSRH5D28-4R7NT	4.7	$\pm 30\%$	10kHz	0.041	2.00
MSRH5D28-5R6NT	5.6	$\pm 30\%$	10kHz	0.045	1.80
MSRH5D28-6R2NT	6.2	$\pm 30\%$	10kHz	0.045	1.80
MSRH5D28-6R8NT	6.8	$\pm 30\%$	10kHz	0.047	1.75
MSRH5D28-8R2NT	8.2	$\pm 30\%$	10kHz	0.053	1.60
MSRH5D28-100MT	10	$\pm 20\%$	10kHz	0.067	1.20
MSRH5D28-150MT	15	$\pm 20\%$	10kHz	0.103	1.10
MSRH5D28-220MT	22	$\pm 20\%$	10kHz	0.150	0.90
MSRH5D28-270MT	27	$\pm 20\%$	10kHz	0.175	0.85
MSRH5D28-330MT	33	$\pm 20\%$	10kHz	0.189	0.75
MSRH5D28-470MT	47	$\pm 20\%$	10kHz	0.300	0.62
MSRH5D28-560MT	56	$\pm 20\%$	10kHz	0.305	0.58
MSRH5D28-680MT	68	$\pm 20\%$	10kHz	0.355	0.52
MSRH5D28-820MT	82	$\pm 20\%$	10kHz	0.468	0.45
MSRH5D28-101MT	100	$\pm 20\%$	10kHz	0.520	0.42
MSRH5D28-221MT	220	$\pm 20\%$	10kHz	1.680	0.30
MSRH5D28-331MT	330	$\pm 20\%$	10kHz	2.050	0.25
MSRH5D28-471MT	470	$\pm 20\%$	10kHz	3.570	0.20

## VI.MSRH6D28 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L ( $\mu$ H)	Tolerance	Test Freq.	DCR( $\Omega$ )Max	Isat(A)
MSRH6D28-1R0NT	1.0	$\pm 30\%$	10kHz	0.018	4.50
MSRH6D28-2R2NT	2.2	$\pm 30\%$	10kHz	0.025	3.50
MSRH6D28-3R0NT	3.0	$\pm 30\%$	10kHz	0.032	3.00
MSRH6D28-3R3NT	3.3	$\pm 30\%$	10kHz	0.035	3.00
MSRH6D28-4R7NT	4.7	$\pm 30\%$	10kHz	0.039	2.50
MSRH6D28-5R0NT	5.0	$\pm 30\%$	10kHz	0.039	2.50
MSRH6D28-6R8NT	6.8	$\pm 30\%$	10kHz	0.054	2.10
MSRH6D28-8R2NT	8.2	$\pm 30\%$	10kHz	0.060	1.90
MSRH6D28-100MT	10	$\pm 20\%$	10kHz	0.065	1.70
MSRH6D28-150MT	15	$\pm 20\%$	10kHz	0.080	1.50
MSRH6D28-180MT	18	$\pm 20\%$	10kHz	0.095	1.32
MSRH6D28-220MT	22	$\pm 20\%$	10kHz	0.128	1.20
MSRH6D28-330MT	33	$\pm 20\%$	10kHz	0.175	1.00
MSRH6D28-470MT	47	$\pm 20\%$	10kHz	0.238	0.80
MSRH6D28-680MT	68	$\pm 20\%$	10kHz	0.350	0.70
MSRH6D28-820MT	82	$\pm 20\%$	10kHz	0.500	0.60
MSRH6D28-101MT	100	$\pm 20\%$	10kHz	0.535	0.54
MSRH6D28-221MT	220	$\pm 20\%$	10kHz	1.200	0.30
MSRH6D28-331MT	330	$\pm 20\%$	10kHz	1.790	0.25

### VII. MSRH6D38 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH6D38-1R0NT	1.0	±30%	10kHz	0.016	4.50
MSRH6D38-1R5NT	1.5	±30%	10kHz	0.017	4.20
MSRH6D38-2R2NT	2.2	±30%	10kHz	0.019	4.00
MSRH6D38-3R3NT	3.3	±30%	10kHz	0.020	3.72
MSRH6D38-4R7NT	4.7	±30%	10kHz	0.032	3.20
MSRH6D38-5R6NT	5.6	±30%	10kHz	0.033	2.80
MSRH6D38-6R8NT	6.8	±30%	10kHz	0.034	2.50
MSRH6D38-8R2NT	8.2	±30%	10kHz	0.045	2.20
MSRH6D38-100MT	10	±20%	10kHz	0.048	2.00
MSRH6D38-120MT	12	±20%	10kHz	0.053	1.70
MSRH6D38-150MT	15	±20%	10kHz	0.057	1.60
MSRH6D38-180MT	18	±20%	10kHz	0.092	1.50
MSRH6D38-220MT	22	±20%	10kHz	0.096	1.30
MSRH6D38-270MT	27	±20%	10kHz	0.109	1.20
MSRH6D38-330MT	33	±20%	10kHz	0.124	1.10
MSRH6D38-390MT	39	±20%	10kHz	0.138	1.00
MSRH6D38-470MT	47	±20%	10kHz	0.155	0.95
MSRH6D38-560MT	56	±20%	10kHz	0.202	0.85
MSRH6D38-680MT	68	±20%	10kHz	0.234	0.75
MSRH6D38-820MT	82	±20%	10kHz	0.324	0.70
MSRH6D38-101MT	100	±20%	10kHz	0.358	0.65
MSRH6D38-221MT	220	±20%	10kHz	0.810	0.45
MSRH6D38-331MT	330	±20%	10kHz	1.350	0.38

### VIII. MSRH8D28 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH8D28-1R0NT	1.0	±30%	100kHz	0.020	6.00
MSRH8D28-2R2NT	2.2	±30%	100kHz	0.025	5.00
MSRH8D28-3R3NT	3.3	±30%	100kHz	0.040	4.80
MSRH8D28-4R7NT	4.7	±30%	100kHz	0.048	3.80
MSRH8D28-6R8NT	6.8	±30%	100kHz	0.052	3.50
MSRH8D28-100MT	10	±20%	100kHz	0.083	2.65
MSRH8D28-150MT	15	±20%	100kHz	0.095	2.55
MSRH8D28-220MT	22	±20%	100kHz	0.182	1.80
MSRH8D28-330MT	33	±20%	100kHz	0.230	1.40
MSRH8D28-470MT	47	±20%	100kHz	0.300	1.20
MSRH8D28-680MT	68	±20%	100kHz	0.400	1.00
MSRH8D28-101MT	100	±20%	100kHz	0.750	0.80

### IX. MSRH8D38 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH8D38-1R0NT	1.0	±30%	100kHz	0.018	6.50
MSRH8D38-1R8NT	1.8	±30%	100kHz	0.020	6.20
MSRH8D38-2R2NT	2.2	±30%	100kHz	0.023	6.00
MSRH8D38-3R3NT	3.3	±30%	100kHz	0.027	5.50
MSRH8D38-3R9NT	3.9	±30%	100kHz	0.028	5.10
MSRH8D38-4R7NT	4.7	±30%	100kHz	0.029	5.00
MSRH8D38-5R6NT	5.6	±30%	100kHz	0.031	4.20
MSRH8D38-6R8NT	6.8	±30%	100kHz	0.043	3.80
MSRH8D38-8R2NT	8.2	±30%	100kHz	0.046	3.50
MSRH8D38-100MT	10	±20%	100kHz	0.049	3.20
MSRH8D38-150MT	15	±20%	100kHz	0.090	2.70
MSRH8D38-220MT	22	±20%	100kHz	0.105	2.30
MSRH8D38-330MT	33	±20%	100kHz	0.138	1.80
MSRH8D38-470MT	47	±20%	100kHz	0.189	1.50
MSRH8D38-560MT	56	±20%	100kHz	0.257	1.40
MSRH8D38-680MT	68	±20%	100kHz	0.268	1.20
MSRH8D38-820MT	82	±20%	100kHz	0.323	1.15
MSRH8D38-101MT	100	±20%	100kHz	0.450	1.05
MSRH8D38-151MT	150	±20%	100kHz	0.521	0.90
MSRH8D38-221MT	220	±20%	100kHz	0.652	0.70
MSRH8D38-331MT	330	±20%	100kHz	1.000	0.60
MSRH8D38-471MT	470	±20%	100kHz	1.540	0.50

### X. MSRH8D43 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS

Part No.	L (μH)	Tolerance	Test Freq.	DCR(Ω)Max	Isat(A)
MSRH8D43-1R0NT	1.0	±30%	100kHz	0.016	8.00
MSRH8D43-2R2NT	2.2	±30%	100kHz	0.020	6.00
MSRH8D43-3R3NT	3.3	±30%	100kHz	0.022	5.50
MSRH8D43-4R7NT	4.7	±30%	100kHz	0.027	4.80
MSRH8D43-5R6NT	5.6	±30%	100kHz	0.029	4.60
MSRH8D43-6R8NT	6.8	±30%	100kHz	0.035	4.40
MSRH8D43-8R2NT	8.2	±30%	100kHz	0.036	4.00
MSRH8D43-100MT	10	±20%	100kHz	0.043	3.60
MSRH8D43-120MT	12	±20%	100kHz	0.064	3.10
MSRH8D43-150MT	15	±20%	100kHz	0.074	2.90
MSRH8D43-220MT	22	±20%	100kHz	0.075	2.60
MSRH8D43-270MT	27	±20%	100kHz	0.106	2.30
MSRH8D43-330MT	33	±20%	100kHz	0.152	1.90
MSRH8D43-390MT	39	±20%	100kHz	0.163	1.60
MSRH8D43-470MT	47	±20%	100kHz	0.175	1.50
MSRH8D43-560MT	56	±20%	100kHz	0.210	1.30
MSRH8D43-680MT	68	±20%	100kHz	0.280	1.20
MSRH8D43-820MT	82	±20%	100kHz	0.320	1.10
MSRH8D43-101MT	100	±20%	100kHz	0.430	1.00
MSRH8D43-121MT	120	±20%	100kHz	0.450	0.90
MSRH8D43-151MT	150	±20%	100kHz	0.505	0.80
MSRH8D43-221MT	220	±20%	100kHz	0.756	0.60
MSRH8D43-331MT	330	±20%	100kHz	1.060	0.50
MSRH8D43-471MT	470	±20%	100kHz	1.168	0.45
MSRH8D43-561MT	560	±20%	100kHz	1.610	0.40
MSRH8D43-681MT	680	±20%	100kHz	1.800	0.35

Isat: Saturation Current, the current when the inductance becomes 35% lower than its initial value.

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