



Features 特点

- ◆ Magnetically shielded construction.
磁屏蔽结构
- ◆ Various high power inductors are superior to be high saturation
大功率，高饱和电流，低阻抗
- ◆ Provided in embossed carrier tape packaging for use with automatic mounting machines
编带包装便于自动贴装

Application 应用

- ◆ Ideally used in Mobilephone,PDA,MP3,DSC/DVC,etc as DC-DC Converter inductors
用于手机、掌上电脑、MP3、数字信号控制器、DSC/DVC、C-DC 转换等

Product Identification 产品标识

MDRH 3D16 - 100 M

① ② ③ ④

- ① Series name 系列名称
- ② Product dimensions 产品尺寸：(3D16=4.2*4.2*1.8mm)
- ③ Inductance Value 电感量：(100=10 μ H)
- ④ Inductance Tolerance 电感量公差：(M:20%;N:30%)

Shapes And Dimensions/Recommended Footprint 外形及焊位尺寸示意图

Fig1

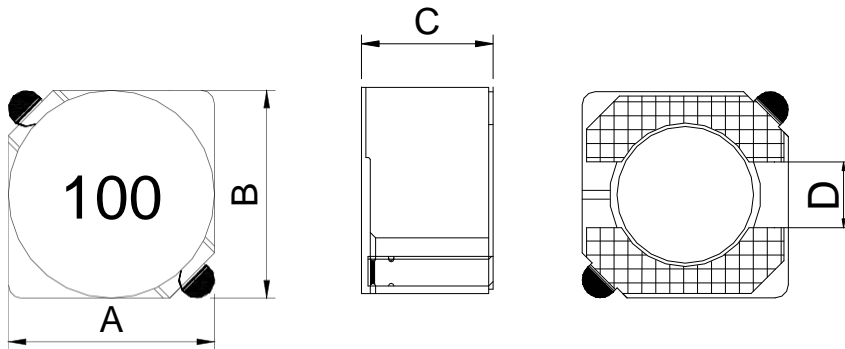
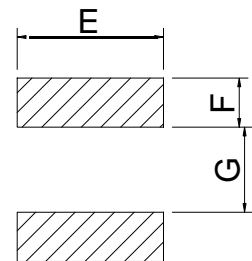


Fig2 Recommended Land Pattern 焊盘规格



Series	Shape	A max	B max	C max	D max	E max	F max	G max	H max
MDRH3D16	Fig1	4.2	4.2	1.8	1.1	4.5	1.7	1.1	
MDRH3D18	Fig1	4.2	4.2	2.1	1.1	4.5	1.7	1.1	
MDRH3D28	Fig1	4.2	4.2	3.0	1.1	4.5	1.7	1.1	
MDRH4D18	Fig1	5.0	5.0	2.0	1.5	5.3	1.9	1.5	
MDRH4D28	Fig1	5.0	5.0	3.0	1.5	5.3	1.9	1.5	
MDRH5D18	Fig1	6.0	6.0	2.0	2.0	6.3	2.15	2.0	
MDRH5D28	Fig1	6.0	6.0	3.0	2.0	6.3	2.15	2.0	
MDRH6D28	Fig1	7.0	7.0	3.0	2.0	7.3	2.65	2.0	
MDRH6D38	Fig1	7.0	7.0	4.0	2.0	7.3	2.65	2.0	



Electrical Characteristics 电气特性

MDRH3D16

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μ H)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH3D16-1R5M	1.5	$\pm 20\%$	100KHz,0.3V	52MAX	1.55	1.55	1R5
MDRH3D16-2R2M	2.2	$\pm 20\%$	100KHz,0.3V	72MAX	1.20	1.20	2R2
MDRH3D16-3R3M	3.3	$\pm 20\%$	100KHz,0.3V	85MAX	1.10	1.10	3R3
MDRH3D16-4R7M	4.7	$\pm 20\%$	100KHz,0.3V	105MAX	0.90	0.90	4R7
MDRH3D16-6R8M	6.8	$\pm 20\%$	100KHz,0.3V	170MAX	0.73	0.73	6R8
MDRH3D16-100M	10	$\pm 20\%$	100KHz,0.3V	210MAX	0.55	0.55	100
MDRH3D16-150M	15	$\pm 20\%$	100KHz,0.3V	295MAX	0.45	0.45	150
MDRH3D16-220M	22	$\pm 20\%$	100KHz,0.3V	430MAX	0.40	0.40	220
MDRH3D16-330M	33	$\pm 20\%$	100KHz,0.3V	660MAX	0.32	0.32	330

Isat: Direct current at which the inductance drops approximate 35% from its value without current. Irms:

Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

MDRH3D18

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μ H)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH3D18-3R0M	3.0	$\pm 20\%$	100KHz,0.3V	65MAX	1.60	1.60	3R0
MDRH3D18-4R7M	4.7	$\pm 20\%$	100KHz,0.3V	107.5MAX	1.35	1.35	4R7
MDRH3D18-6R8M	6.8	$\pm 20\%$	100KHz,0.3V	150MAX	1.10	1.10	6R8
MDRH3D18-100M	10	$\pm 20\%$	100KHz,0.3V	205MAX	0.90	0.90	100
MDRH3D18-150M	15	$\pm 20\%$	100KHz,0.3V	301MAX	0.75	0.75	150
MDRH3D18-220M	22	$\pm 20\%$	100KHz,0.3V	424MAX	0.60	0.60	220
MDRH3D18-330M	33	$\pm 20\%$	100KHz,0.3V	640MAX	0.45	0.45	330
MDRH3D18-470M	47	$\pm 20\%$	100KHz,0.3V	964MAX	0.35	0.35	470

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

MDRH3D28

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μ H)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH3D28-3R3M	3.3	$\pm 20\%$	100KHz,0.3V	72.1MAX	2.00	2.00	3R3
MDRH3D28-4R7M	4.7	$\pm 20\%$	100KHz,0.3V	88.3MAX	1.65	1.65	4R7
MDRH3D28-6R8M	6.8	$\pm 20\%$	100KHz,0.3V	119MAX	1.24	1.24	6R8
MDRH3D28-100M	10	$\pm 20\%$	100KHz,0.3V	145MAX	1.05	1.05	100
MDRH3D28-150M	15	$\pm 20\%$	100KHz,0.3V	213MAX	0.90	0.90	150
MDRH3D18-220M	22	$\pm 20\%$	100KHz,0.3V	335MAX	0.76	0.76	220



MDRH3D18-330M	33	±20%	100KHz,0.3V	481MAX	0.58	0.58	330
MDRH3D18-470M	47	±20%	100KHz,0.3V	599MAX	0.48	0.48	470

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient

MDRH4D18

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μH)	Tolerance	Frequency	DCR ($\text{m}\Omega$)	Isat(A)	Irms(A)	
MDRH4D18-1R0M	1.0	±20%	100KHz,0.3V	45MAX	1.72	1.72	1R0
MDRH4D18-2R2M	2.2	±20%	100KHz,0.3V	75MAX	1.32	1.32	2R2
MDRH4D18-2R7M	2.7	±20%	100KHz,0.3V	105MAX	1.28	1.28	2R7
MDRH4D18-3R3M	3.3	±20%	100KHz,0.3V	110MAX	1.04	1.04	3R3
MDRH4D18-3R9M	3.9	±20%	100KHz,0.3V	155MAX	0.88	0.88	3R9
MDRH4D18-4R7M	4.7	±20%	100KHz,0.3V	162MAX	0.84	0.84	4R7
MDRH4D18-5R6M	5.6	±20%	100KHz,0.3V	170MAX	0.80	0.80	5R6
MDRH4D18-6R8M	6.8	±20%	100KHz,0.3V	190MAX	0.76	0.76	6R8
MDRH4D18-100M	10	±20%	100KHz,0.3V	200MAX	0.61	0.61	100
MDRH4D18-120M	12	±20%	100KHz,0.3V	210MAX	0.56	0.56	120
MDRH4D18-150M	15	±20%	100KHz,0.3V	240MAX	0.50	0.50	150
MDRH4D18-180M	18	±20%	100KHz,0.3V	338MAX	0.48	0.48	180
MDRH4D18-220M	22	±20%	100KHz,0.3V	397MAX	0.41	0.41	220
MDRH4D18-270M	27	±20%	100KHz,0.3V	441MAX	0.35	0.35	270
MDRH4D18-330M	33	±20%	100KHz,0.3V	694MAX	0.32	0.32	330
MDRH4D18-390M	39	±20%	100KHz,0.3V	709MAX	0.30	0.30	390
MDRH4D18-470M	47	±20%	100KHz,0.3V	922MAX	0.28	0.28	470
MDRH4D18-560M	56	±20%	100KHz,0.3V	1080MAX	0.26	0.26	560
MDRH4D18-680M	68	±20%	100KHz,0.3V	1300MAX	0.24	0.24	680
MDRH4D18-820M	82	±20%	100KHz,0.3V	1560MAX	0.22	0.22	820
MDRH4D18-101M	100	±20%	100KHz,0.3V	1730MAX	0.20	0.20	101
MDRH4D18-121M	120	±20%	100KHz,0.3V	2390MAX	0.18	0.18	121
MDRH4D18-151M	150	±20%	100KHz,0.3V	2670MAX	0.15	0.15	151
MDRH4D18-181M	180	±20%	100KHz,0.3V	4000MAX	0.14	0.14	181

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

MDRH4D28

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μH)	Tolerance	Frequency	DCR ($\text{m}\Omega$)	Isat(A)	Irms(A)	
MDRH4D28-1R2M	1.2	±20%	100KHz,0.3V	24.2MAX	2.56	2.56	1R0
MDRH4D28-2R2M	2.2	±20%	100KHz,0.3V	31.3MAX	2.04	2.04	2R2
MDRH4D28-3R3M	3.3	±20%	100KHz,0.3V	49MAX	1.57	1.57	3R3
MDRH4D28-4R7M	4.7	±20%	100KHz,0.3V	72MAX	1.32	1.32	4R7
MDRH4D28-5R6M	5.6	±20%	100KHz,0.3V	101MAX	1.17	1.17	5R6
MDRH4D28-6R8M	6.8	±20%	100KHz,0.3V	108MAX	1.12	1.12	6R8



MDRH4D28-8R2M	8.2	±20%	100KHz,0.3V	118MAX	1.04	1.04	6R8
MDRH4D28-100M	10	±20%	100KHz,0.3V	128MAX	1.00	1.00	100
MDRH4D28-120M	12	±20%	100KHz,0.3V	132MAX	0.84	0.84	120
MDRH4D28-150M	15	±20%	100KHz,0.3V	149MAX	0.76	0.76	150
MDRH4D28-180M	18	±20%	100KHz,0.3V	165MAX	0.72	0.72	180
MDRH4D28-220M	22	±20%	100KHz,0.3V	235MAX	0.70	0.70	220
MDRH4D28-330M	33	±20%	100KHz,0.3V	331MAX	0.56	0.56	330
MDRH4D28-390M	39	±20%	100KHz,0.3V	384MAX	0.50	0.50	390
MDRH4D28-470M	47	±20%	100KHz,0.3V	587MAX	0.48	0.48	470
MDRH4D28-560M	56	±20%	100KHz,0.3V	624MAX	0.41	0.41	560
MDRH4D28-680M	68	±20%	100KHz,0.3V	699MAX	0.35	0.35	680
MDRH4D28-820M	82	±20%	100KHz,0.3V	915MAX	0.32	0.32	820
MDRH4D28-101M	100	±20%	100KHz,0.3V	1020MAX	0.29	0.29	101
MDRH4D28-121M	120	±20%	100KHz,0.3V	1270MAX	0.27	0.27	121
MDRH4D28-151M	150	±20%	100KHz,0.3V	1350MAX	0.24	0.24	151
MDRH4D28-181M	180	±20%	100KHz,0.3V	1540MAX	0.22	0.22	181
MDRH4D28-221M	220	±20%	100KHz,0.3V	1720MAX	0.20	0.20	221
MDRH4D28-271M	270	±20%	100KHz,0.3V	1950MAX	0.16	0.16	271

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}C$) from $20^{\circ}C$ ambient.

MDRH5D18

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μ H)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH5D18-3R3M	3.3	±20%	100KHz,0.3V	53MAX	2.00	2.00	3R3
MDRH5D18-4R7M	4.7	±20%	100KHz,0.3V	60MAX	1.90	1.90	4R7
MDRH5D18-5R6M	5.6	±20%	100KHz,0.3V	76MAX	1.60	1.60	5R6
MDRH5D18-6R8M	6.8	±20%	100KHz,0.3V	105MAX	1.40	1.40	6R8
MDRH5D18-100M	10	±20%	100KHz,0.3V	124MAX	1.20	1.20	100
MDRH5D18-120M	12	±20%	100KHz,0.3V	153MAX	1.10	1.10	120
MDRH5D18-180M	18	±20%	100KHz,0.3V	210MAX	0.85	0.85	180
MDRH5D18-220M	22	±20%	100KHz,0.3V	290MAX	0.80	0.80	220
MDRH5D18-330M	33	±20%	100KHz,0.3V	386MAX	0.65	0.65	330
MDRH5D18-390M	39	±20%	100KHz,0.3V	520MAX	0.57	0.57	390
MDRH5D18-470M	47	±20%	100KHz,0.3V	595MAX	0.54	0.54	470
MDRH5D18-560M	56	±20%	100KHz,0.3V	665MAX	0.50	0.50	560
MDRH5D18-680M	68	±20%	100KHz,0.3V	840MAX	0.43	0.43	680
MDRH5D18-820M	82	±20%	100KHz,0.3V	978MAX	0.41	0.41	820
MDRH5D18-101M	100	±20%	100KHz,0.3V	1200MAX	0.36	0.36	101
MDRH5D18-121M	120	±20%	100KHz,0.3V	1500MAX	0.33	0.33	121
MDRH5D18-151M	150	±20%	100KHz,0.3V	1710MAX	0.31	0.31	151
MDRH5D18-181M	180	±20%	100KHz,0.3V	3380MAX	0.21	0.21	181



MDRH5D18-221M	220	±20%	100KHz,0.3V	4340MAX	0.18	0.18	221
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Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

MDRH5D28

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μH)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH5D28-2R2M	2.2	±20%	100KHz,0.3V	17MAX	2.60	2.60	2R2
MDRH5D28-3R3M	3.3	±20%	100KHz,0.3V	29MAX	2.40	2.40	3R3
MDRH5D28-100M	10	±20%	100KHz,0.3V	65MAX	1.30	1.30	100
MDRH5D28-120M	12	±20%	100KHz,0.3V	76MAX	1.20	1.20	120
MDRH5D28-180M	18	±20%	100KHz,0.3V	110MAX	1.00	1.00	180
MDRH5D28-220M	22	±20%	100KHz,0.3V	122MAX	0.90	0.90	220
MDRH5D28-330M	33	±20%	100KHz,0.3V	189MAX	0.75	0.75	330
MDRH5D28-470M	47	±20%	100KHz,0.3V	250MAX	0.62	0.62	470
MDRH5D28-560M	56	±20%	100KHz,0.3V	305MAX	0.58	0.58	560
MDRH5D28-680M	68	±20%	100KHz,0.3V	355MAX	0.52	0.52	680
MDRH5D28-820M	82	±20%	100KHz,0.3V	463MAX	0.46	0.46	820
MDRH5D28-101M	100	±20%	100KHz,0.3V	520MAX	0.42	0.42	101
MDRH5D28-121M	120	±20%	100KHz,0.3V	560MAX	0.40	0.40	121
MDRH5D28-151M	150	±20%	100KHz,0.3V	680MAX	0.35	0.35	151
MDRH5D28-181M	180	±20%	100KHz,0.3V	930MAX	0.32	0.32	181
MDRH5D28-221M	220	±20%	100KHz,0.3V	1150MAX	0.30	0.30	221
MDRH5D28-271M	270	±20%	100KHz,0.3V	1560MAX	0.27	0.27	271
MDRH5D28-331M	330	±20%	100KHz,0.3V	1980MAX	0.25	0.25	101
MDRH5D28-391M	390	±20%	100KHz,0.3V	2500MAX	0.22	0.22	121
MDRH5D28-471M	470	±20%	100KHz,0.3V	2700MAX	0.20	0.20	151
MDRH5D28-561M	560	±20%	100KHz,0.3V	3120MAX	0.18	0.18	181
MDRH5D28-681M	680	±20%	100KHz,0.3V	4150MAX	0.16	0.16	221

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}\text{C}$) from 20°C ambient.

MDRH6D28

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μH)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH6D28-3R3M	3.3	±20%	100KHz,0.3V	26MAX	2.80	2.80	3R3
MDRH6D28-4R7M	4.7	±20%	100KHz,0.3V	31MAX	2.40	2.40	4R7
MDRH6D28-100M	10	±20%	100KHz,0.3V	65MAX	1.70	1.70	100
MDRH6D28-150M	15	±20%	100KHz,0.3V	84MAX	1.40	1.40	150
MDRH6D28-180M	18	±20%	100KHz,0.3V	95MAX	1.32	1.32	180
MDRH6D28-220M	22	±20%	100KHz,0.3V	128MAX	1.20	1.20	220
MDRH6D28-330M	33	±20%	100KHz,0.3V	165MAX	0.97	0.97	330



MDRH6D28-470M	47	±20%	100KHz,0.3V	238MAX	0.80	0.80	470
MDRH6D28-560M	56	±20%	100KHz,0.3V	277MAX	0.73	0.73	560
MDRH6D28-680M	68	±20%	100KHz,0.3V	304MAX	0.65	0.65	680
MDRH6D28-820M	82	±20%	100KHz,0.3V	390MAX	0.60	0.60	820
MDRH6D28-101M	100	±20%	100KHz,0.3V	535MAX	0.54	0.54	100
MDRH6D28-121M	120	±20%	100KHz,0.3V	750MAX	0.51	0.51	120
MDRH6D28-151M	150	±20%	100KHz,0.3V	950MAX	0.47	0.47	151
MDRH6D28-181M	180	±20%	100KHz,0.3V	1200MAX	0.41	0.41	181
MDRH6D28-221M	220	±20%	100KHz,0.3V	1500MAX	0.37	0.37	221
MDRH6D28-271M	270	±20%	100KHz,0.3V	1700MAX	0.33	0.33	271
MDRH6D28-331M	330	±20%	100KHz,0.3V	2150MAX	0.28	0.28	331
MDRH6D28-471M	470	±20%	100KHz,0.3V	3150MAX	0.21	0.21	471
MDRH6D28-681M	680	±20%	100KHz,0.3V	5150MAX	0.20	0.20	681

Isat: Direct current at which the inductance drops approximate 35% from its value without current.

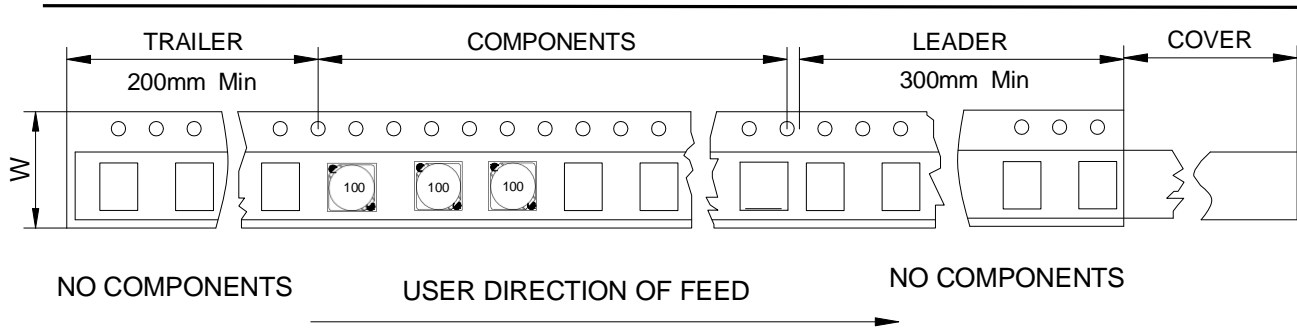
Irms: Direct current when the temperature of the product rise($\Delta T=40^{\circ}C$) from $20^{\circ}C$ ambient.

MDRH6D38

MING - CI	Inductance	Percent	L Test	DC Resistance	Rated Current	Rated Current	Marking
P/N	L(μH)	Tolerance	Frequency	DCR (m Ω)	Isat(A)	Irms(A)	
MDRH6D38-1R5M	1.5	±20%	100KHz,0.3V	15MAX	5.20	5.20	1R5
MDRH6D38-3R3M	3.3	±20%	100KHz,0.3V	20MAX	3.50	3.50	3R3
MDRH6D38-6R8M	6.8	±20%	100KHz,0.3V	29 MAX	2.40	2.40	6R8
MDRH6D38-100M	10	±20%	100KHz,0.3V	38 MAX	2.00	2.00	100
MDRH6D38-120M	12	±20%	100KHz,0.3V	53 MAX	1.70	1.70	120
MDRH6D38-150M	15	±20%	100KHz,0.3V	57 MAX	1.60	1.60	150
MDRH6D38-180M	18	±20%	100KHz,0.3V	92 MAX	1.50	1.50	180
MDRH6D38-220M	22	±20%	100KHz,0.3V	96 MAX	1.30	1.30	220
MDRH6D38-270M	27	±20%	100KHz,0.3V	109 MAX	1.20	1.20	270
MDRH6D38-330M	33	±20%	100KHz,0.3V	124 MAX	1.10	1.10	330
MDRH6D38-390M	39	±20%	100KHz,0.3V	138 MAX	1.00	1.00	390
MDRH6D38-470M	47	±20%	100KHz,0.3V	155 MAX	0.95	0.95	470
MDRH6D38-560M	56	±20%	100KHz,0.3V	202 MAX	0.85	0.85	560
MDRH6D38-680M	68	±20%	100KHz,0.3V	234 MAX	0.75	0.75	680
MDRH6D38-820M	82	±20%	100KHz,0.3V	324 MAX	0.70	0.70	820
MDRH6D38-101M	100	±20%	100KHz,0.3V	358 MAX	0.65	0.65	101
MDRH6D38-121M	120	±20%	100KHz,0.3V	470 MAX	0.59	0.59	121
MDRH6D38-151M	150	±20%	100KHz,0.3V	580 MAX	0.54	0.54	151
MDRH6D38-181M	180	±20%	100KHz,0.3V	690 MAX	0.49	0.49	181
MDRH6D38-221M	220	±20%	100KHz,0.3V	890 MAX	0.43	0.43	221
MDRH6D38-271M	270	±20%	100KHz,0.3V	1290 MAX	0.40	0.40	271
MDRH6D38-331M	330	±20%	100KHz,0.3V	1700 MAX	0.37	0.37	331
MDRH6D38-391M	390	±20%	100KHz,0.3V	1750 MAX	0.34	0.34	391
MDRH6D38-471M	470	±20%	100KHz,0.3V	2200 MAX	0.32	0.32	471



Taping Dimension 包装尺寸



Series	Qty per Reel	Reel Size	Reel Box	Outer Box
MDRH3D16	2500PCS	13Inch*12width	10000PCS(340*340*75mm)	30000PCS(358*358*250mm)
MDRH3D18	2500PCS	13Inch*12width	10000PCS(340*340*75mm)	30000PCS(358*358*250mm)
MDRH3D28	2000PCS	13Inch*12width	8000PCS(340*340*75mm)	24000PCS(358*358*250mm)
MDRH4D18	2500PCS	13Inch*12width	10000PCS(340*340*75mm)	30000PCS(358*358*250mm)
MDRH4D28	2000PCS	13Inch*12width	8000PCS(340*340*75mm)	24000PCS(358*358*250mm)
MDRH5D18	2500PCS	13Inch*16width	7500PCS(340*340*75mm)	22500PCS(358*358*250mm)
MDRH5D28	2000PCS	13Inch*16width	6000PCS(340*340*75mm)	18000PCS(358*358*250mm)
MDRH6D28	1500PCS	13Inch*16width	4500PCS(340*340*75mm)	13500PCS(358*358*250mm)
MDRH6D38	1000PCS	13Inch*16width	3000PCS(340*340*75mm)	9000PCS(358*358*250mm)