

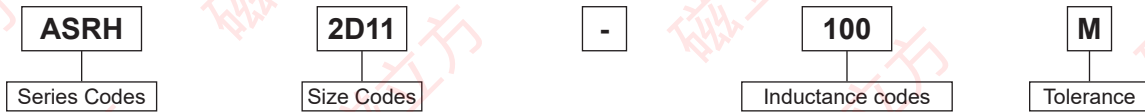
# ASRH SERIES

## Features:

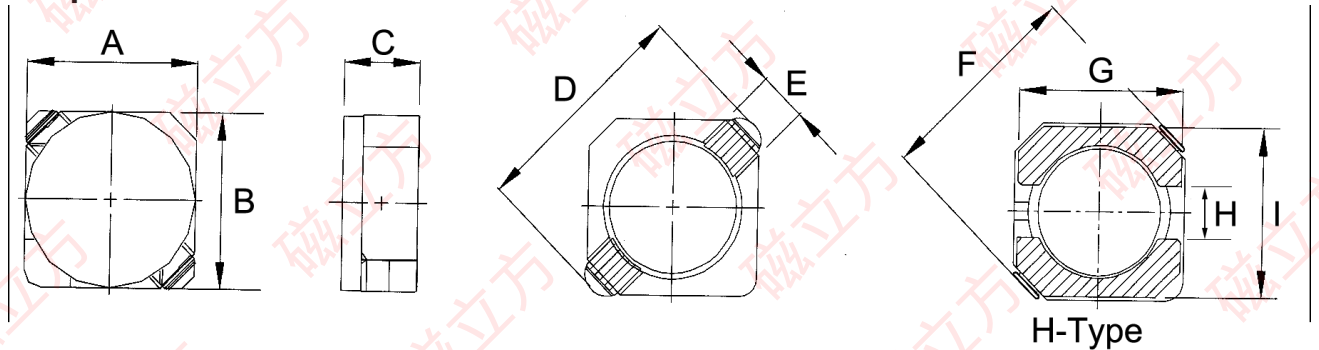
- Low DCR, high rated current.
- Low profile, magnetic shielded structure.
- Lead free product, RoHS compliant.
- Carrier tape packing, suitable for SMT process.
- Widely used in buck converter, laptop, displayer, network communication equipment, and etc.
- Operating temperature : -40 C ~+125 C  
(Including coil's temperature rise).



## Explanation of part numbers:



## Shape & Dimension:



(unit: mm)

Series	A	B	C	D	E	F	G	H	I
ASRH2D11	3.0±0.2	3.0±0.2	1.1±0.2	4.5	1.0	4.5	3.0	1.0	3.0
ASRH2D14	3.0±0.2	3.0±0.2	1.4±0.2	4.5	1.0	4.5	3.0	1.0	3.0
ASRH2D18	3.0±0.2	3.0±0.2	1.8±0.2	4.5	1.0	4.5	3.0	1.0	3.0
ASRH3D16	3.8±0.2	3.8±0.2	1.6±0.2	5.2	1.1	5.2	3.8±0.1	1.2	3.8±0.1
ASRH3D28	3.8±0.2	3.8±0.2	2.8±0.2	5.2	1.1	5.2	3.8±0.1	1.2	3.8±0.1

## Electrical characteristics:

Test condition: at 25 °C 100KHz/0.1V

Part Number	Inductance	DCR Max	Rated Current
	( $\mu$ H)	( $\Omega$ )	(A)
ASRH2D11-1R0M	1	0.068	0.9
ASRH2D11-1R5M	1.5	0.07	0.85
ASRH2D11-2R2M	2.2	0.098	0.78
ASRH2D11-3R3M	3.3	0.123	0.6
ASRH2D11-3R9M	3.9	0.148	0.55
ASRH2D11-4R7M	4.7	0.17	0.5
ASRH2D11-5R6M	5.6	0.245	0.46
ASRH2D11-6R8M	6.8	0.26	0.44
ASRH2D11-8R2M	8.2	0.38	0.38
ASRH2D11-100M	10	0.4	0.35
ASRH2D11-120M	12	0.52	0.2
ASRH2D11-150M	15	0.55	0.19
ASRH2D11-220M	22	0.782	0.18
ASRH2D11-330M	33	1.2	0.16
ASRH2D11-390M	39	1.23	0.14
ASRH2D11-470M	47	1.25	0.1
ASRH2D14-1R8M	1.8	0.75	1.15
ASRH2D14-2R2M	2.2	0.95	1.1
ASRH2D14-3R3M	3.3	0.125	1
ASRH2D14-4R7M	4.7	0.175	0.9
ASRH2D14-5R6M	5.6	0.206	0.85
ASRH2D14-6R8M	6.8	0.213	0.83
ASRH2D14-8R2M	8.2	0.286	0.78
ASRH2D14-100M	10	0.37	0.65
ASRH2D14-120M	12	0.415	0.6
ASRH2D14-150M	15	0.445	0.55
ASRH2D14-180M	18	0.625	0.51
ASRH2D14-220M	22	0.795	0.42
ASRH2D14-270M	27	0.895	0.4
ASRH2D18-1R2M	1.2	0.05	0.8
ASRH2D18-2R2M	2.2	0.078	0.78
ASRH2D18-2R7M	2.7	0.08	0.76
ASRH2D18-3R3M	3.3	0.082	0.75
ASRH2D18-4R7M	4.7	0.098	0.63
ASRH2D18-6R8M	6.8	0.125	0.52
ASRH2D18-100M	10	0.18	0.43
ASRH2D18-150M	15	0.25	0.35
ASRH2D18-220M	22	0.32	0.3
ASRH2D18-330M	33	0.46	0.24
ASRH2D18-470M	47	0.66	0.2
ASRH2D18-680M	68	1.8	0.18

**Electrical characteristics:**

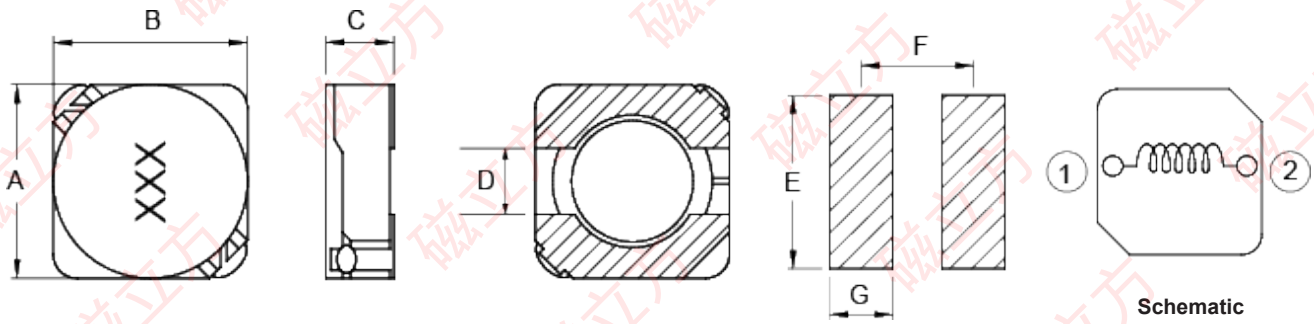
Test condition: at 25 °C 100kHz/0.1V

Part Number	Inductance	DCR Max	Rated Current
	( $\mu$ H)	( $\Omega$ )	(A)
ASRH3D16-1R0M	1.00	0.048	1.55
ASRH3D16-1R5M	1.50	0.05	1.45
ASRH3D16-2R2M	2.20	0.071	1.2
ASRH3D16-3R3M	3.30	0.085	1.1
ASRH3D16-3R6M	3.60	0.095	1
ASRH3D16-4R3M	4.30	0.103	0.92
ASRH3D16-4R7M	4.70	0.105	0.82
ASRH3D16-5R1M	5.10	0.13	0.8
ASRH3D16-5R6M	5.60	0.145	0.73
ASRH3D16-6R8M	6.80	0.162	0.7
ASRH3D16-8R2M	8.20	0.18	0.55
ASRH3D16-100M	10.00	0.21	0.48
ASRH3D16-120M	12.00	0.27	0.45
ASRH3D16-150M	15.00	0.29	0.42
ASRH3D16-180M	18.00	0.41	0.4
ASRH3D16-220M	22.00	0.43	0.32
ASRH3D16-270M	27.00	0.45	0.3
ASRH3D16-330M	33.00	0.67	0.28
ASRH3D16-390M	39.00	0.95	0.26
ASRH3D16-470M	47.00	1.175	0.24
ASRH3D16-820M	82.00	1.8	0.18
ASRH3D16-101M	100.00	2	0.15
ASRH3D28-2R2M	2.20	0.048	1.9
ASRH3D28-4R7M	4.70	0.086	1.2
ASRH3D28-6R8M	6.80	0.11	1.1
ASRH3D28-100M	10.00	0.145	0.85
ASRH3D28-220M	22.00	0.23	0.65
ASRH3D28-330M	33.00	0.24	0.28
ASRH3D28-390M	39.00	0.26	0.25
ASRH3D28-470M	47.00	0.375	0.23
ASRH3D28-560M	56.00	0.385	0.2
ASRH3D28-101M	100.00	0.628	0.19
ASRH3D28-221M	220.00	1.37	0.18

**NOTE:**

- All data is tested based on 25 °C ambient temperature.
- Inductance measure condition at 100kHz, 0.1V.
- Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.
- Temperature rise current: the actual value of DC current when the temperature rise is  $\Delta T 40^{\circ}\text{C}$  ( $T_a=25^{\circ}\text{C}$ ).
- Special remind: Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.

## Shape & Dimension:



Reference land pattern

(unit: mm)

Series	A	B	C	D	E	F	G
ASRH4D18	4.7±0.3	4.7±0.3	1.8±0.2	1.60	5.30	3.40	1.90
ASRH4D28	4.7±0.3	4.7±0.3	2.8±0.4	1.60	5.30	3.40	1.90
ASRH5D18	5.7±0.5	5.7±0.5	1.8±0.2	2.00	6.30	4.15	2.15
ASRH5D28	5.7±0.5	5.7±0.5	2.8±0.2	2.00	6.30	4.15	2.15
ASRH6D28	6.8±0.5	6.8±0.5	2.8±0.4	2.00	7.30	4.65	2.65
ASRH6D38	6.8±0.5	6.8±0.5	3.8±0.4	2.00	7.30	4.65	2.65

## Electrical characteristics:

Test condition: at 25 °C 100KHz/0.1V

Part No.	L(0A)(μh)	DCR (mΩ)		Isat(A)	I <sub>rms</sub> (A)
		Typ	Max	Typ	Typ
ASRH4D18-1R2N	1.2±30%	24.7	29.6	3.00	2.83
ASRH4D18-2R2N	2.2±30%	36.2	43.4	2.30	2.33
ASRH4D18-3R0N	3±30%	47.0	56.4	2.00	2.05
ASRH4D18-4R7N	4.7±30%	63.0	75.6	1.60	1.77
ASRH4D18-6R8N	6.8±30%	100.0	120.0	1.30	1.40
ASRH4D18-8R2N	8.2±30%	112.0	134.0	1.20	1.33
ASRH4D18-100M	10±20%	130.0	156.0	1.15	1.23
ASRH4D18-150M	15±20%	174.0	209.0	0.90	1.06
ASRH4D18-220M	22±20%	279.0	335.0	0.75	0.84
ASRH4D18-330M	33±20%	395.0	474.0	0.60	0.71
ASRH4D18-470M	47±20%	600.0	720.0	0.50	0.57
ASRH4D18-680M	68±20%	850.0	1020.0	0.42	0.48
ASRH4D18-820M	82±20%	960.0	1152.0	0.38	0.45
ASRH4D18-101M	100±20%	1320.0	1584.0	0.34	0.39
ASRH4D18-151M	150±20%	1640.0	1968.0	0.29	0.35
ASRH4D18-221M	220±20%	2640.0	3168.0	0.24	0.27

### NOTE:

- All data is tested based on 25 °C ambient temperature.
- Inductance measure condition at 100kHz, 0.1V.
- Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.
- Temperature rise current: the actual value of DC current when the temperature rise is ΔT40 °C (T<sub>a</sub>=25 °C).
- Special remind: Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.

## Electrical characteristics:

Test condition: at 25°C 100KHz/0.1V

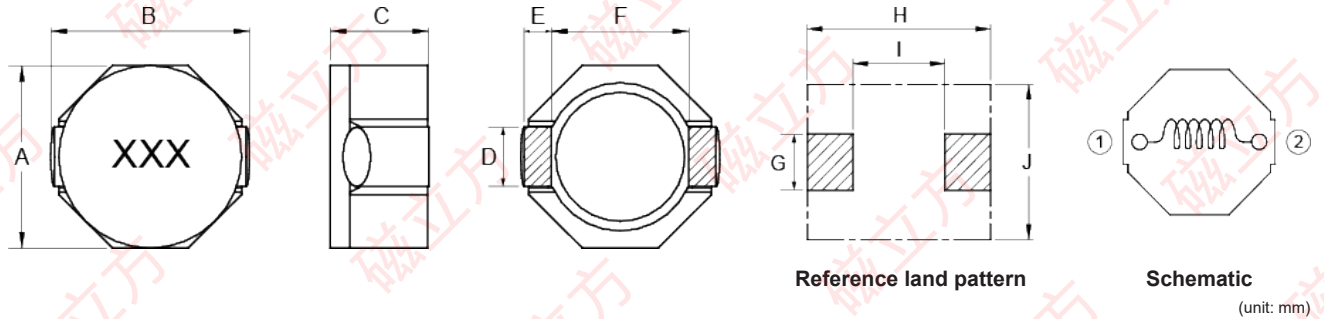
Part No.	L(0A)(μh)	DCR (mΩ)		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH4D28-1R0N	1±30%	16	19.2	3.75	3.61
ASRH4D28-2R2N	2.2±30%	20	24	2.9	3.23
ASRH4D28-3R3N	3.3±30%	29.5	35.4	2.35	2.66
ASRH4D28-4R7N	4.7±30%	44	52.8	1.95	2.18
ASRH4D28-6R8N	6.8±30%	49.2	59	1.65	2.06
ASRH4D28-8R2N	8.2±30%	66.8	80.2	1.5	1.77
ASRH4D28-100M	10±20%	76	91.2	1.3	1.66
ASRH4D28-150M	15±20%	116	139	1	1.34
ASRH4D28-220M	22±20%	147	176	0.85	1.19
ASRH4D28-330M	33±20%	235	282	0.72	0.94
ASRH4D28-470M	47±20%	318	382	0.6	0.81
ASRH4D28-680M	68±20%	497	596	0.52	0.65
ASRH4D28-820M	82±20%	558	670	0.46	0.61
ASRH4D28-101M	100±20%	628	754	0.4	0.58
ASRH4D28-151M	150±20%	1,120	1,344	0.33	0.43
ASRH4D28-221M	220±20%	1,590	1,908	0.28	0.36
ASRH4D28-331M	330±20%	2,520	3,024	0.23	0.29
ASRH5D18-1R0N	1±30%	18.8	22.6	3.7	3.26
ASRH5D18-1R8N	1.8±30%	28.5	34.2	2.4	2.65
ASRH5D18-3R3N	3.3±30%	38.5	46.2	1.9	2.28
ASRH5D18-4R7N	4.7±30%	56	67.2	1.65	1.89
ASRH5D18-6R8N	6.8±30%	78	93.6	1.35	1.6
ASRH5D18-8R2N	8.2±30%	85	102	1.25	1.53
ASRH5D18-100M	10±20%	114	137	1.1	1.32
ASRH5D18-150M	15±20%	147	176	0.95	1.17
ASRH5D18-220M	22±20%	190	228	0.7	1.03
ASRH5D18-330M	33±20%	285	342	0.6	0.84
ASRH5D18-470M	47±20%	425	510	0.5	0.69
ASRH5D18-680M	68±20%	620	744	0.43	0.57
ASRH5D18-820M	82±20%	726	871	0.4	0.52
ASRH5D18-101M	100±20%	908	1,090	0.35	0.47
ASRH5D18-151M	150±20%	1,320	1,584	0.28	0.39
ASRH5D18-221M	220±20%	1,700	2,040	0.22	0.34
ASRH5D18-331M	330±20%	3,300	3,960	0.2	0.25
ASRH5D28-1R2N	1.2±30%	15.3	18.4	3.6	3.84
ASRH5D28-1R8N	1.8±30%	16.4	19.7	3.1	3.71
ASRH5D28-3R3N	3.3±30%	23	27.6	2.3	3.13
ASRH5D28-4R7N	4.7±30%	32	38.4	1.85	2.66
ASRH5D28-6R8N	6.8±30%	45	54	1.55	2.24
ASRH5D28-8R2N	8.2±30%	48.6	58.3	1.4	2.16
ASRH5D28-100M	10±20%	67.5	81	1.25	1.83
ASRH5D28-150M	15±20%	89	107	1.05	1.59
ASRH5D28-220M	22±20%	120	144	0.85	1.37
ASRH5D28-330M	33±20%	203	244	0.65	1.05
ASRH5D28-470M	47±20%	240	288	0.58	0.97
ASRH5D28-680M	68±20%	348	418	0.48	0.81
ASRH5D28-820M	82±20%	395	474	0.44	0.76
ASRH5D28-101M	100±20%	495	594	0.39	0.68
ASRH5D28-151M	150±20%	800	960	0.32	0.53
ASRH5D28-221M	220±20%	1,170	1,404	0.27	0.44
ASRH5D28-331M	330±20%	1,700	2,040	0.22	0.36
ASRH5D28-471M	470±20%	2,400	2,880	0.18	0.31

## Electrical characteristics:

Test condition: at 25°C 100KHz/0.1V

Part No.	L(0A)( $\mu$ h)	DCR (m $\Omega$ )		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH6D28-1R0N	1 $\pm$ 30%	12.3	14.8	6	4.86
ASRH6D28-2R2N	2.2 $\pm$ 30%	16.8	20.2	3.8	4.16
ASRH6D28-3R3N	3.3 $\pm$ 30%	21.6	25.9	3.1	3.67
ASRH6D28-4R7N	4.7 $\pm$ 30%	28.7	34.4	2.6	3.18
ASRH6D28-6R8N	6.8 $\pm$ 30%	40	48	2.15	2.7
ASRH6D28-8R2N	8.2 $\pm$ 30%	45	54	2	2.54
ASRH6D28-100M	10 $\pm$ 20%	56	67.2	1.85	2.28
ASRH6D28-120M	12 $\pm$ 20%	67.5	81	1.65	2.08
ASRH6D28-150M	15 $\pm$ 20%	76	91.2	1.4	1.96
ASRH6D28-220M	22 $\pm$ 20%	116	139	1.2	1.58
ASRH6D28-270M	27 $\pm$ 20%	145	174	1.1	1.42
ASRH6D28-330M	33 $\pm$ 20%	167	200	1	1.32
ASRH6D28-470M	47 $\pm$ 20%	240	288	0.8	1.1
ASRH6D28-560M	56 $\pm$ 20%	260	312	0.75	1.06
ASRH6D28-680M	68 $\pm$ 20%	300	360	0.7	0.98
ASRH6D28-820M	82 $\pm$ 20%	374	449	0.63	0.88
ASRH6D28-101M	100 $\pm$ 20%	505	606	0.57	0.76
ASRH6D28-151M	150 $\pm$ 20%	650	780	0.46	0.67
ASRH6D28-221M	220 $\pm$ 20%	905	1,086	0.38	0.57
ASRH6D28-271M	270 $\pm$ 20%	1,250	1,500	0.35	0.48
ASRH6D28-331M	330 $\pm$ 20%	1,600	1,920	0.32	0.43
ASRH6D28-471M	470 $\pm$ 20%	2,335	2,802	0.26	0.35
ASRH6D38-1R0N	1 $\pm$ 30%	11	13.2	5.5	5.33
ASRH6D38-2R2N	2.2 $\pm$ 30%	14	16.8	4.9	4.73
ASRH6D38-3R3N	3.3 $\pm$ 30%	18	21.6	4.1	4.17
ASRH6D38-4R7N	4.7 $\pm$ 30%	23	27.6	3.7	3.69
ASRH6D38-6R8N	6.8 $\pm$ 30%	27	32.4	3	3.4
ASRH6D38-8R2N	8.2 $\pm$ 30%	36.7	44	2.55	2.92
ASRH6D38-100M	10 $\pm$ 20%	39	46.8	2.4	2.83
ASRH6D38-120M	12 $\pm$ 20%	48.7	58.4	2.2	2.53
ASRH6D38-150M	15 $\pm$ 20%	58.5	70.2	1.9	2.31
ASRH6D38-220M	22 $\pm$ 20%	86	103	1.65	1.91
ASRH6D38-270M	27 $\pm$ 20%	100	120	1.45	1.77
ASRH6D38-330M	33 $\pm$ 20%	112	134	1.35	1.67
ASRH6D38-390M	39 $\pm$ 20%	146	175	1.2	1.46
ASRH6D38-470M	47 $\pm$ 20%	156	187	1.1	1.42
ASRH6D38-560M	56 $\pm$ 20%	186	223	1	1.3
ASRH6D38-680M	68 $\pm$ 20%	240	288	0.9	1.14
ASRH6D38-820M	82 $\pm$ 20%	268	322	0.8	1.08
ASRH6D38-101M	100 $\pm$ 20%	348	418	0.75	0.95
ASRH6D38-151M	150 $\pm$ 20%	500	600	0.62	0.79
ASRH6D38-221M	220 $\pm$ 20%	675	810	0.51	0.68
ASRH6D38-271M	270 $\pm$ 20%	840	1,008	0.45	0.61
ASRH6D38-331M	330 $\pm$ 20%	1,065	1,278	0.42	0.54
ASRH6D38-391M	390 $\pm$ 20%	1,175	1,410	0.39	0.52
ASRH6D38-471M	470 $\pm$ 20%	1,700	2,040	0.35	0.43
ASRH6D38-561M	560 $\pm$ 20%	1,860	2,232	0.33	0.41
ASRH6D38-681M	680 $\pm$ 20%	2,470	2,964	0.29	0.36
ASRH6D38-821M	820 $\pm$ 20%	3,130	3,756	0.27	0.32
ASRH6D38-102M	1000 $\pm$ 20%	3,580	4,296	0.24	0.3

## Shape & Dimension:



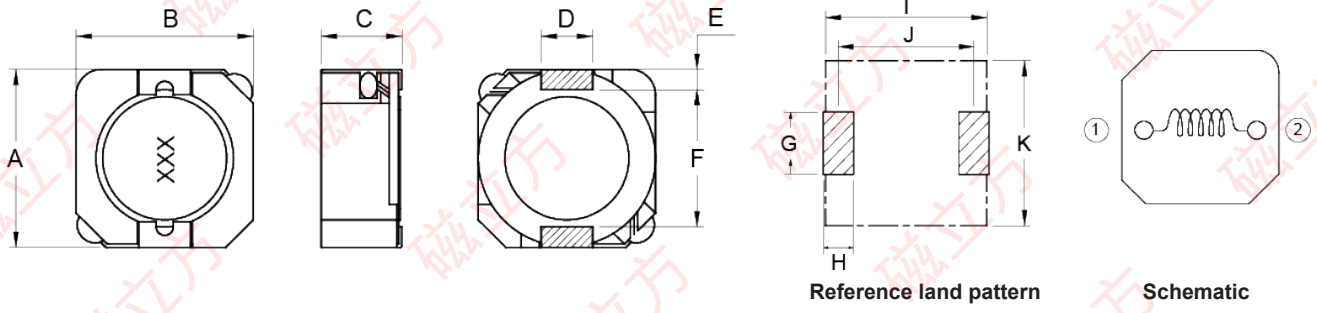
Series	A	B	C	D	E	F	G	H	I	J
ASRH8D28	8.0±0.3	9.5±0.5	3.0±0.2	2.50	1.20	6.00	3.00	10.00	5.00	8.30
ASRH8D43	8.0±0.3	9.5±0.5	4.5±0.3	2.50	1.20	6.00	3.00	10.00	5.00	8.30

## Electrical characteristics:

Test condition: at 25°C 100kHz/0.1V

Part No.	L(0A)(μH)	DCR (mΩ)		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH8D28-1R0N	1±30%	9.0	10.80	9.00	5.64
ASRH8D28-2R2N	2.2±30%	14.0	16.80	6.00	4.52
ASRH8D28-3R3N	3.3±30%	17.0	20.40	5.30	4.11
ASRH8D28-4R7N	4.7±30%	26.0	31.20	4.00	3.32
ASRH8D28-6R8N	6.8±30%	31.5	37.80	3.60	3.02
ASRH8D28-8R2N	8.2±30%	41.0	49.20	3.20	2.64
ASRH8D28-100M	10±20%	63.0	75.60	2.70	2.13
ASRH8D28-150M	15±20%	84.0	101.00	2.35	1.85
ASRH8D28-220M	22±20%	105.0	126.00	1.90	1.65
ASRH8D28-330M	33±20%	176.0	211.00	1.50	1.28
ASRH8D28-470M	47±20%	250.0	300.00	1.32	1.07
ASRH8D28-680M	68±20%	343.0	412.00	1.10	0.91
ASRH8D28-820M	82±20%	432.0	518.00	1.00	0.81
ASRH8D28-101M	100±20%	524.0	629.00	0.90	0.74
ASRH8D43-1R0N	1±30%	7.1	8.52	11.00	7.00
ASRH8D43-2R2N	2.2±30%	10.8	13	7.50	5.67
ASRH8D43-3R3N	3.3±30%	12.8	15.4	7.00	5.21
ASRH8D43-4R7N	4.7±30%	23	27.6	5.40	3.89
ASRH8D43-6R8N	6.8±30%	26	31.2	4.80	3.66
ASRH8D43-8R2N	8.2±30%	33	39.6	4.40	3.24
ASRH8D43-100M	10±20%	44	52.8	3.70	2.81
ASRH8D43-150M	15±20%	55	66	3.20	2.51
ASRH8D43-220M	22±20%	94	113	2.60	1.92
ASRH8D43-330M	33±20%	116	139	2.15	1.73
ASRH8D43-470M	47±20%	165	198	1.80	1.45
ASRH8D43-680M	68±20%	266	319	1.45	1.14
ASRH8D43-820M	82±20%	294	353	1.32	1.09
ASRH8D43-101M	100±20%	385	462	1.23	0.95
ASRH8D43-151M	150±20%	610	732	0.97	0.75
ASRH8D43-221M	220±20%	815	978	0.83	0.65
ASRH8D43-331M	330±20%	1180	1416	0.66	0.54
ASRH8D43-471M	470±20%	1840	2208	0.56	0.43
ASRH8D43-681M	680±20%	2660	3192	0.47	0.36
ASRH8D43-821M	820±20%	2910	3492	0.43	0.35
ASRH8D43-102M	1000±20%	4000	4800	0.38	0.29

## Shape & Dimension:



(unit: mm)

Series	A	B	C	D	E	F	G	H	I	J	K
ASRH10D30	10.4±0.5	10.2±0.3	2.8±0.3	3.0	1.2	7.7	4.0	2.0	10.9	9.0	10.5
ASRH10D40	10.4±0.5	10.2±0.3	3.8±0.3	3.0	1.2	7.7	4.0	2.0	10.9	9.0	10.5
ASRH10D50	10.4±0.5	10.2±0.3	4.8±0.3	3.0	1.2	7.7	4.0	2.0	10.9	9.0	10.5

## Electrical characteristics:

Test condition: at 25°C 100KHz/0.1V

Part No.	L(0A)(μH)	DCR (mΩ)		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH10D30-1R2N	1.2±30%	7.61	9.13	6.3	7.2
ASRH10D30-2R2N	2.2±30%	10.3	12.4	5.8	6.19
ASRH10D30-3R3N	3.3±30%	12.8	15.4	4.85	5.55
ASRH10D30-5R6N	5.6±30%	20	24	3.8	4.44
ASRH10D30-6R8N	6.8±30%	23.8	28.6	3.2	4.07
ASRH10D30-8R2N	8.2±30%	30	36	3	3.63
ASRH10D30-100M	10±20%	35.5	42.6	2.8	3.33
ASRH10D30-120M	12±20%	45.3	54.4	2.7	2.95
ASRH10D30-150M	15±20%	49.8	59.8	2.2	2.82
ASRH10D30-180M	18±20%	65	78	2.05	2.46
ASRH10D30-220M	22±20%	75.3	90.4	2	2.29
ASRH10D30-270M	27±20%	95	114	1.72	2.04
ASRH10D30-330M	33±20%	114	137	1.61	1.86
ASRH10D30-390M	39±20%	126	151	1.4	1.77
ASRH10D30-470M	47±20%	140	168	1.3	1.68
ASRH10D30-560M	56±20%	180	216	1.15	1.49
ASRH10D30-680M	68±20%	208	250	1.05	1.38
ASRH10D30-820M	82±20%	243	292	0.95	1.27
ASRH10D30-101M	100±20%	300	360	0.85	1.15
ASRH10D30-121M	120±20%	353	424	0.8	1.06
ASRH10D30-151M	150±20%	450	540	0.75	0.94
ASRH10D30-181M	180±20%	532	638	0.68	0.86
ASRH10D30-221M	220±20%	610	732	0.62	0.8
ASRH10D30-271M	270±20%	818	982	0.56	0.69
ASRH10D30-331M	330±20%	936	1123	0.5	0.65
ASRH10D30-391M	390±20%	1148	1378	0.47	0.59
ASRH10D30-471M	470±20%	1440	1728	0.41	0.52
ASRH10D30-561M	560±20%	1562	1874	0.35	0.5
ASRH10D30-681M	680±20%	2110	2532	0.33	0.43
ASRH10D30-821M	820±20%	2426	2911	0.32	0.4
ASRH10D30-102M	1000±20%	2856	3427	0.31	0.37



### Electrical characteristics:

Test condition:at 25 C 100KHz/0.1V

Part No.	L(0A)( $\mu$ H)	DCR (m $\Omega$ )		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH10D40-1R2N	1.2 $\pm$ 30%	8.3	10	13	7.31
ASRH10D40-2R2N	2.2 $\pm$ 30%	10.3	12.4	9.5	6.56
ASRH10D40-3R3N	3.3 $\pm$ 30%	13.8	16.6	8	5.67
ASRH10D40-4R7N	4.7 $\pm$ 30%	16	19.2	6.5	5.26
ASRH10D40-5R6N	5.6 $\pm$ 30%	21.8	26.2	6	4.51
ASRH10D40-6R8N	6.8 $\pm$ 30%	25.1	30.1	5.5	4.08
ASRH10D40-100M	10 $\pm$ 20%	28	33.6	4.46	3.95
ASRH10D40-120M	12 $\pm$ 20%	40.3	48.4	4	3.21
ASRH10D40-150M	15 $\pm$ 20%	43.4	52.1	3.7	2.87
ASRH10D40-180M	18 $\pm$ 20%	47.6	57.1	3.12	2.59
ASRH10D40-220M	22 $\pm$ 20%	68.4	82.1	2.95	2.39
ASRH10D40-270M	27 $\pm$ 20%	78.8	94.6	2.8	2.31
ASRH10D40-330M	33 $\pm$ 20%	107	128	2.6	2.07
ASRH10D40-390M	39 $\pm$ 20%	130	156	2.25	1.87
ASRH10D40-470M	47 $\pm$ 20%	145	174	1.98	1.81
ASRH10D40-560M	56 $\pm$ 20%	159	191	1.82	1.59
ASRH10D40-680M	68 $\pm$ 20%	215	258	1.65	1.52
ASRH10D40-820M	82 $\pm$ 20%	244	293	1.55	1.38
ASRH10D40-101M	100 $\pm$ 20%	299	359	1.53	1.26
ASRH10D40-121M	120 $\pm$ 20%	355	426	1.26	1.19
ASRH10D40-151M	150 $\pm$ 20%	410	492	1.22	1.07
ASRH10D40-181M	180 $\pm$ 20%	538	646	1.05	0.98
ASRH10D40-221M	220 $\pm$ 20%	595	714	0.9	0.88
ASRH10D40-271M	270 $\pm$ 20%	737	884	0.85	0.79
ASRH10D40-331M	330 $\pm$ 20%	910	1,092	0.82	0.69
ASRH10D40-391M	390 $\pm$ 20%	1,120	1,344	0.66	0.66
ASRH10D40-471M	470 $\pm$ 20%	1,230	1,476	0.65	0.59
ASRH10D40-561M	560 $\pm$ 20%	1,550	1,860	0.57	0.56
ASRH10D40-681M	680 $\pm$ 20%	1,750	2,100	0.54	0.5
ASRH10D40-821M	820 $\pm$ 20%	2,620	3,144	0.48	0.42
ASRH10D40-102M	1000 $\pm$ 20%	2,870	3,444	0.45	0.4

## Electrical characteristics:

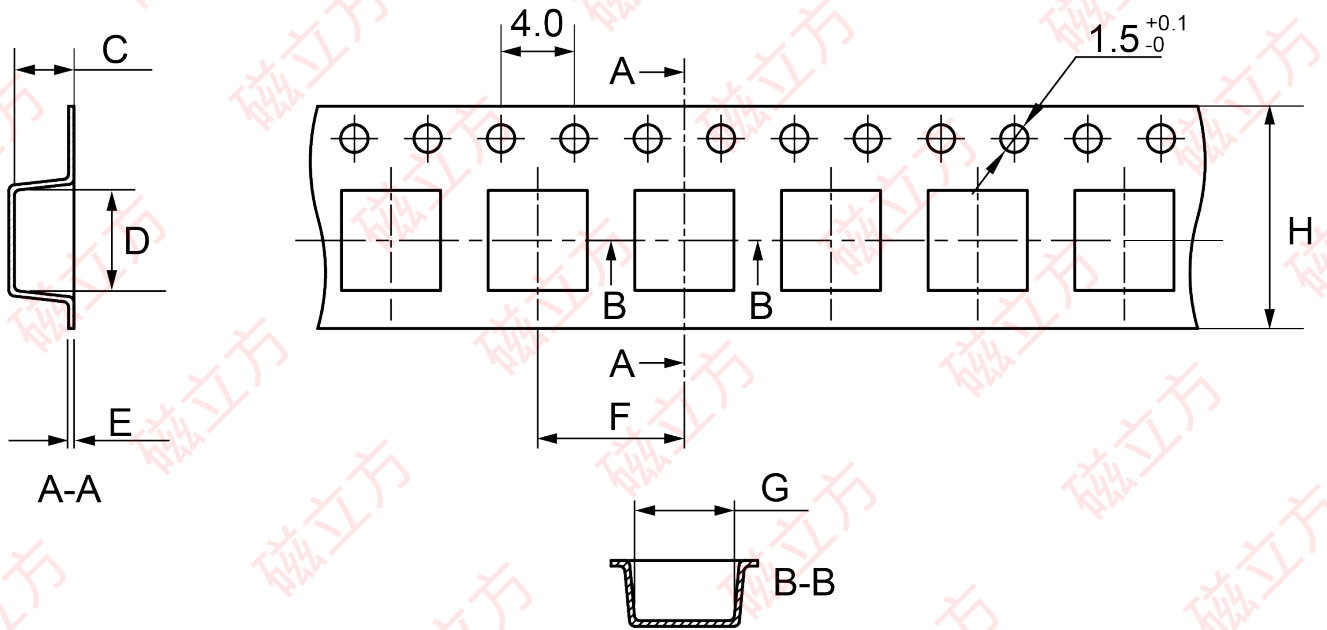
Test condition: at 25°C 100kHz/0.1V

Part No.	L(0A)( $\mu$ h)	DCR (m $\Omega$ )		Isat(A)	Irms(A)
		Typ	Max	Typ	Typ
ASRH10D50-1R2N	1.2 $\pm$ 30%	7.1	8.52	13	8
ASRH10D50-2R2N	2.2 $\pm$ 30%	9.4	11.3	10	6.72
ASRH10D50-3R3N	3.3 $\pm$ 30%	12.5	15	8.5	6.01
ASRH10D50-5R6N	5.6 $\pm$ 30%	17	20.4	6.3	5.15
ASRH10D50-6R8N	6.8 $\pm$ 30%	19.5	23.4	5.5	4.81
ASRH10D50-8R2N	8.2 $\pm$ 30%	21	25.2	4.9	4.64
ASRH10D50-100M	10 $\pm$ 20%	25	30	4.5	4.25
ASRH10D50-120M	12 $\pm$ 20%	31	37.2	4.1	3.82
ASRH10D50-150M	15 $\pm$ 20%	35	42	3.7	3.5
ASRH10D50-180M	18 $\pm$ 20%	47	56.4	3.5	3.15
ASRH10D50-220M	22 $\pm$ 20%	55	66	3.1	2.86
ASRH10D50-270M	27 $\pm$ 20%	60	72	2.9	2.74
ASRH10D50-330M	33 $\pm$ 20%	70	84	2.4	2.54
ASRH10D50-390M	39 $\pm$ 20%	75	90	2.2	2.36
ASRH10D50-470M	47 $\pm$ 20%	100	120	2.1	2.13
ASRH10D50-560M	56 $\pm$ 20%	107	128	1.9	2.02
ASRH10D50-680M	68 $\pm$ 20%	135	162	1.7	1.83
ASRH10D50-820M	82 $\pm$ 20%	178	214	1.6	1.6
ASRH10D50-101M	100 $\pm$ 20%	190	228	1.5	1.53
ASRH10D50-121M	120 $\pm$ 20%	233	280	1.35	1.38
ASRH10D50-151M	150 $\pm$ 20%	263	316	1.2	1.3
ASRH10D50-181M	180 $\pm$ 20%	338	406	1.1	1.16
ASRH10D50-221M	220 $\pm$ 20%	385	462	1	1.08
ASRH10D50-271M	270 $\pm$ 20%	470	564	0.9	0.96
ASRH10D50-331M	330 $\pm$ 20%	577	692	0.8	0.9
ASRH10D50-391M	390 $\pm$ 20%	700	840	0.7	0.78
ASRH10D50-471M	470 $\pm$ 20%	770	924	0.65	0.76
ASRH10D50-561M	560 $\pm$ 20%	930	1,116	0.6	0.69
ASRH10D50-681M	680 $\pm$ 20%	1,152	1,382	0.55	0.64
ASRH10D50-821M	820 $\pm$ 20%	1,390	1,668	0.5	0.57
ASRH10D50-102M	1000 $\pm$ 20%	1,720	2,064	0.45	0.52

### NOTE:

- All data is tested based on 25°C ambient temperature.
- Inductance measure condition at 100kHz, 0.1V.
- Saturation current: the actual value of DC current when the inductance decrease 20% of its initial value.
- Temperature rise current: the actual value of DC current when the temperature rise is  $\Delta T40^\circ\text{C}$  ( $T_a=25^\circ\text{C}$ ).
- Special remind: Circuit design, component placement, PCB size and thickness, cooling system and etc. all will affect the product temperature. Please verify the product temperature in the final application.

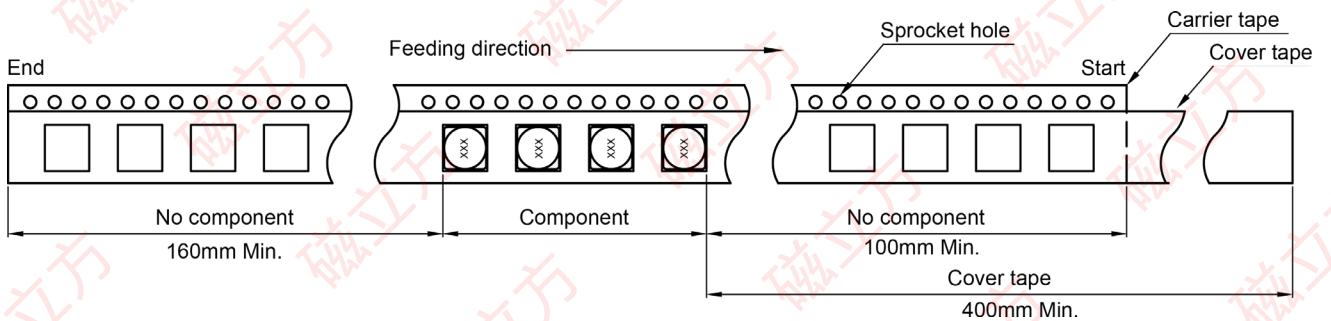
### Packing Information (Carrier tape dimensions):



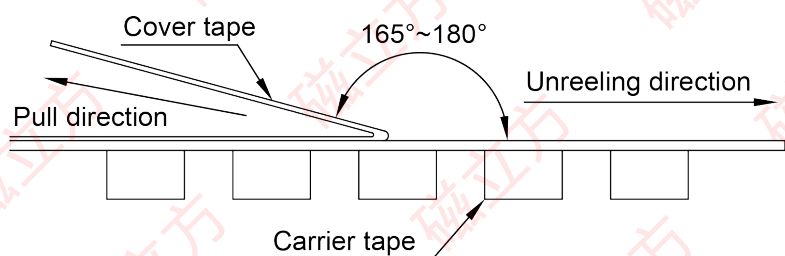
(unit: mm)

Series	C	D	E	F	G	H
ASRH4D18	3.25±0.1	5.4±0.1	0.3±0.05	8.0±0.1	5.4±0.1	12.0±0.3
ASRH4D28	3.25±0.1	5.4±0.1	0.3±0.05	8.0±0.1	5.4±0.1	12.0±0.3
ASRH5D18	2.1±0.1	6.15±0.1	0.3±0.03	12.0±0.1	6.15±0.1	16.0±0.3
ASRH5D28	2.8±0.1	6.2±0.1	0.3±0.05	12.0±0.1	6.2±0.1	16.0±0.3
ASRH6D28	2.95±0.1	7.1±0.1	0.3±0.05	12.0±0.1	8.85±0.1	16.0±0.3
ASRH6D38	4.0±0.1	7.25±0.1	0.35±0.05	12.0±0.1	7.25±0.1	16.0±0.3
ASRH8D28	3.35±0.1	9.8±0.1	0.3±0.05	12.0±0.1	8.3±0.1	16.0±0.3
ASRH8D43	4.6±0.1	9.9±0.1	0.4±0.05	12.0±0.1	8.15±0.1	16.0±0.3
ASRH10D30	4.2±0.1	10.55±0.1	0.5±0.05	16.0±0.1	10.55±0.1	24.0±0.3
ASRH10D40	4.2±0.1	10.55±0.1	0.5±0.05	16.0±0.1	10.55±0.1	24.0±0.3
ASRH10D50	4.75±0.1	10.8±0.1	0.35±0.05	16.0±0.1	10.8±0.1	24.0±0.3

### Tape direction:

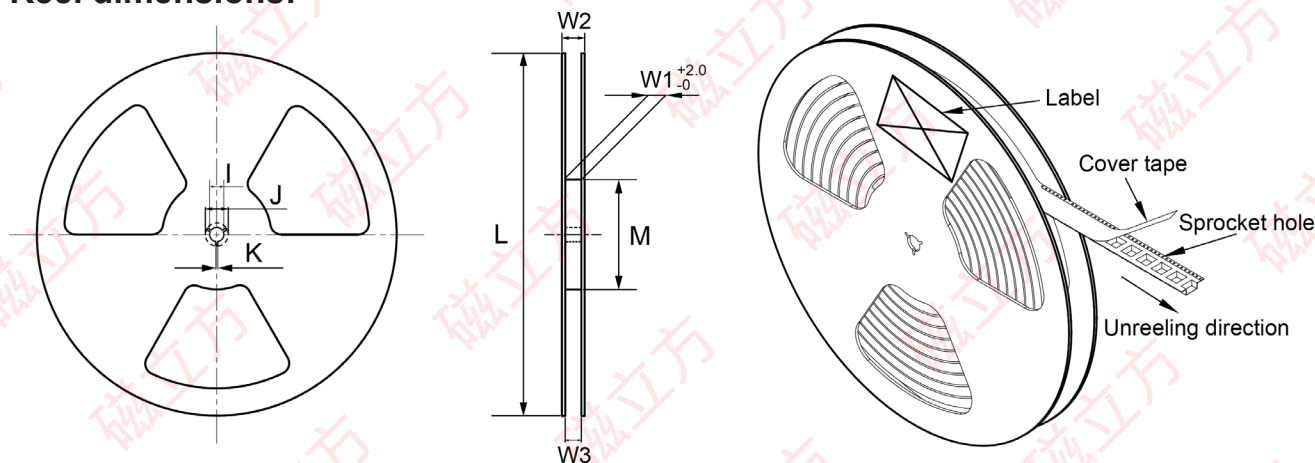


### Cover tape peel off condition:



Cover tape peel force shall be 0.1 to 1.3N.

### Reel dimensions:



(unit: mm)

Series	Quantity	I	J	K	L	M	W1	W2	W3
ASRH4D18	3000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	12.4	18.4Max	11.9Min
ASRH4D28	2000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	12.4	18.4Max	11.9Min
ASRH5D18	2000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH5D28	2000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH6D28	1000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH6D38	1000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH8D28	1500pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH8D43	1000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	16.4	22.40Max.	15.90Min.
ASRH10D30	1000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	24.4	30.40Max.	23.90Min.
ASRH10D40	1000pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	24.4	30.40Max.	23.90Min.
ASRH10D50	800pcs	13.0±0.5	21.0±0.8	2.0±0.5	330±2.0	100Min.	24.4	30.40Max.	23.90Min.