Power Inductor
CDRH**D**R Series

■ Features

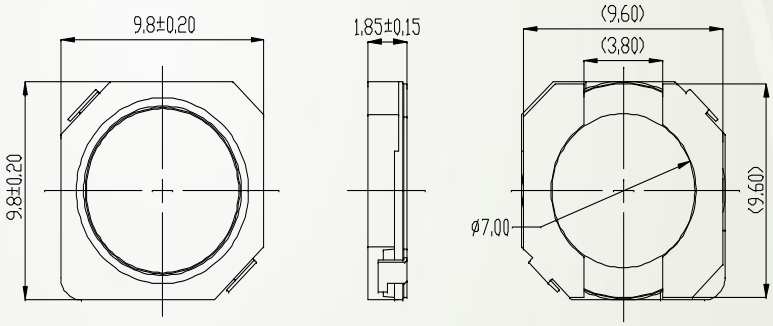
◎ Magnetically shielded construction.
◎ Storage temperature range: -40℃~+105℃.
◎ Operating temperature range: -40℃~+105℃(including coil's self-heat).
◎ Competitive price due to improvement of productivity efficiency.
◎ RoHS Compliance.

■ Applications

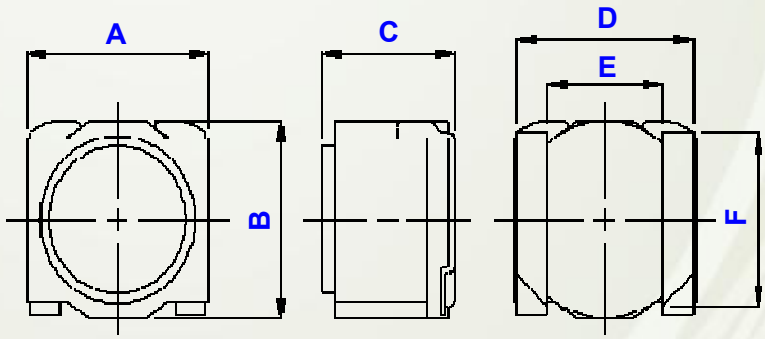
Ideally used in Mobile phone,PDA,MP3,DSC/DVC,HDD,etc as DC-DC converter inductors.

■ Shapes and Dimensions/Recommended Land Patterns(mm)

◆ Dimensions



CDRH98D18R



Type name	A Max.	B Max.	C Max.	D	E	F
CDRH50D28R	5.3	5.3	3.0	4.8	3.2	4.2
CDRH50D43R	5.3	5.3	4.5	4.8	3.2	4.2
CDRH60D28R	6.3	6.3	3.0	5.8	3.8	5.3
CDRH60D43R	6.3	6.3	4.5	5.8	3.8	5.3

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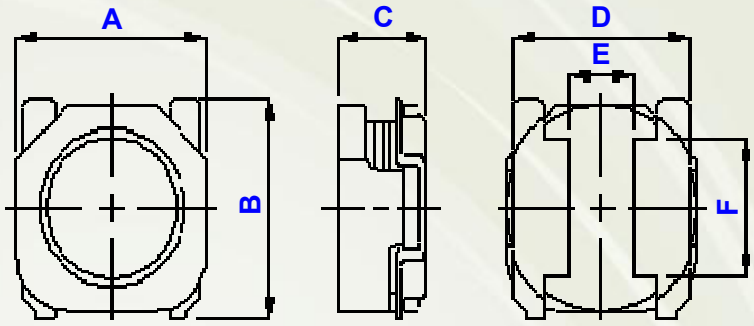
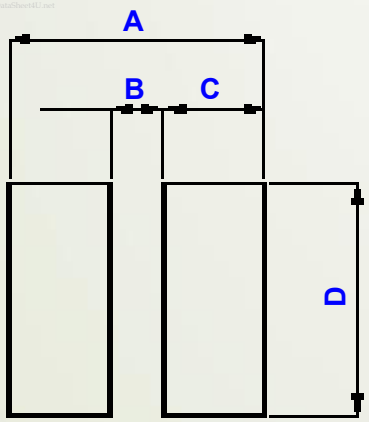


Type name	A Max.	B Max.	C Max.	D	E	F
CDRH30D14R	3.15	3.3	1.5	2.8	1.0	2.0
CDRH30D16R	3.15	3.3	1.8	2.8	1.0	2.0
CDRH38D14R	3.95	4.2	1.5	3.5	1.0	3.0
CDRH38D14R/HP	3.95	4.2	1.5	3.5	1.0	3.0
CDRH38D14R/LD	3.95	4.2	1.5	3.5	1.0	3.0
CDRH38D16R	3.95	4.2	1.8	3.5	1.0	3.0
CDRH38D16R/HP	3.95	4.2	1.8	3.5	1.0	3.0
CDRH38D16R/LD	3.95	4.2	1.8	3.5	1.0	3.0

◆ Land pattern (mm)



Type Name	A	B	C	D
CDRH30D14R	3.0	0.8	1.1	2.2
CDRH30D16R	3.0	0.8	1.1	2.2
CDRH38D14R	3.8	0.8	1.5	3.2
CDRH38D14R/HP	3.8	0.8	1.5	3.2
CDRH38D14R/LD	3.8	0.8	1.5	3.2
CDRH38D16R	3.8	0.8	1.5	3.2
CDRH38D16R/HP	3.8	0.8	1.5	3.2
CDRH38D16R/LD	3.8	0.8	1.5	3.2
CDRH50D28R	5.2	3.0	1.1	4.8
CDRH50D43R	5.2	3.0	1.1	4.8
CDRH60D28R	6.2	3.6	1.3	5.9
CDRH60D43R	6.2	3.6	1.3	5.9
CDRH89D18R	10.2	3.6	3.3	10.2

Power Inductor
CDRH**D**R Series

■Electrical Characteristics specification.

◆ CDRH30D14R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ)	Saturation Current (A) ※1		Temperature Rise Current (A) ※2
			(at 20℃)	(at 100℃)	
CDRH30D14RNP-1R0NC	1.0±30%	39±25%	1.90	1.40	2.43
CDRH30D14RNP-1R4NC	1.4±30%	50±25%	1.60	1.20	2.10
CDRH30D14RNP-2R2NC	2.2±30%	74±25%	1.30	1.00	1.62
CDRH30D14RNP-3R3MC	3.3±20%	111±20%	1.05	0.80	1.28
CDRH30D14RNP-4R7MC	4.7±20%	153±20%	0.90	0.68	1.16
CDRH30D14RNP-6R4MC	6.4±20%	223±20%	0.75	0.56	0.95
CDRH30D14RNP-100MC	10±20%	394±20%	0.60	0.46	0.63

◆ CDRH30D16R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH30D16RNP-1R0NC	1.0±30%	37.5(30)	1.88	2.73
CDRH30D16RNP-1R5NC	1.5±30%	47.5(38)	1.52	2.30
CDRH30D16RNP-2R2NC	2.2±30%	58.8(47)	1.28	1.95
CDRH30D16RNP-3R3MC	3.3±30%	93.8(75)	1.05	1.52
CDRH30D16RNP-4R7MC	4.7±30%	150(120)	0.88	1.11
CDRH30D16RNP-6R8MC	6.8±20%	210(175)	0.74	0.97
CDRH30D16RNP-100MC	10±20%	252(210)	0.60	0.86
CDRH30D16RNP-150MC	15±20%	498(415)	0.50	0.56
CDRH30D16RNP-220MC	22±20%	624(520)	0.41	0.52
CDRH30D16RNP-330MC	33±20%	948(770)	0.33	0.39

Power Inductor
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◆ CDRH38D14R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH38D14RNP-1R2NC	1.2±30%	28.8(23)	1.88	3.60
CDRH38D14RNP-1R6NC	1.6±30%	40(32)	1.64	3.00
CDRH38D14RNP-2R2NC	2.2±30%	55(44)	1.40	2.50
CDRH38D14RNP-3R3MC	3.3±20%	90(72)	1.12	1.90
CDRH38D14RNP-4R2MC	4.2±20%	114(91)	1.00	1.55
CDRH38D14RNP-6R8MC	6.8±20%	163(136)	0.80	1.32
CDRH38D14RNP-100MC	10±20%	270(225)	0.66	0.95
CDRH38D14RNP-150MC	15±20%	402(335)	0.53	0.76
CDRH38D14RNP-220MC	22±20%	642(535)	0.43	0.60
CDRH38D14RNP-330MC	33±20%	972(810)	0.36	0.48

◆ CDRH38D14R/HP

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH38D14RHPNP-R90NC	0.9±30%	25(20)	2.75	4.30
CDRH38D14RHPNP-1R2NC	1.2±30%	37.5(30)	2.40	3.40
CDRH38D14RHPNP-1R7NC	1.7±30%	53.8(43)	2.00	2.70
CDRH38D14RHPNP-2R2NC	2.2±30%	68.8(55)	1.80	2.40
CDRH38D14RHPNP-3R6MC	3.6±20%	113(90)	1.40	1.70
CDRH38D14RHPNP-4R3MC	4.3±20%	138(115)	1.28	1.45
CDRH38D14RHPNP-6R3MC	6.3±20%	222(185)	1.05	1.04
CDRH38D14RHPNP-100MC	10±20%	348(290)	0.83	0.83
CDRH38D14RHPNP-150MC	15±20%	552(460)	0.68	0.66
CDRH38D14RHPNP-220MC	22±20%	840(700)	0.56	0.54

Power Inductor
CDRH**D**R Series

◆ CDRH38D14R/LD

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH38D14RLDNP-1R2NC	1.2±30%	27.5(22)	1.20	3.58
CDRH38D14RLDNP-1R5NC	1.5±30%	32.5(26)	1.08	3.30
CDRH38D14RLDNP-2R2NC	2.2±30%	43.8(35)	0.92	2.65
CDRH38D14RLDNP-3R3MC	3.3±20%	72.5(58)	0.76	2.14
CDRH38D14RLDNP-4R7MC	4.7±20%	90(72)	0.64	1.73
CDRH38D14RLDNP-6R8MC	6.8±20%	130(108)	0.54	1.46
CDRH38D14RLDNP-100MC	10±20%	214(178)	0.43	1.08
CDRH38D14RLDNP-150MC	15±20%	294(245)	0.35	0.85
CDRH38D14RLDNP-220MC	22±20%	480(400)	0.30	0.68
CDRH38D14RLDNP-330MC	33±20%	840(700)	0.24	0.48
CDRH38D14RLDNP-470MC	47±20%	1070(895)	0.21	0.44

◆ CDRH38D16R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ)	Saturation Current (A) ※1		Temperature Rise Current (A) ※2
			(at 20℃)	(at 100℃)	
CDRH38D16RNP-R90NC	0.9±30%	19±25%	2.18	1.73	3.45
CDRH38D16RNP-1R6NC	1.6±30%	27±25%	1.65	1.39	3.05
CDRH38D16RNP-2R2NC	2.2±30%	30±25%	1.41	1.22	2.85
CDRH38D16RNP-3R3MC	3.3±20%	47±25%	1.16	0.99	2.25
CDRH38D16RNP-4R7MC	4.7±20%	68±25%	0.95	0.80	1.75
CDRH38D16RNP-6R8MC	6.8±20%	91±25%	0.81	0.69	1.50
CDRH38D16RNP-100MC	10±20%	127±20%	0.62	0.54	1.30
CDRH38D16RNP-150MC	15±20%	174±20%	0.53	0.47	1.15
CDRH38D16RNP-220MC	22±20%	303±20%	0.44	0.38	0.80
CDRH38D16RNP-330MC	33±20%	431±20%	0.35	0.31	0.68
CDRH38D16RNP-470MC	47±20%	788±20%	0.29	0.24	0.47
CDRH38D16RNP-680MC	68±20%	1007±20%	0.26	0.22	0.42
CDRH38D16RNP-101MC	100±20%	1521±20%	0.20	0.17	0.33

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◆ CDRH38D16R/HP

Sumida P/N	Inductance (μH)	D.C.R. (mΩ)	Saturation Current (A) ※1		Temperature Rise Current (A) ※2
			(at 20℃)	(at 100℃)	
CDRH38D16RHPNP-R90NC	0.9±30%	20±25%	2.66	2.40	3.30
CDRH38D16RHPNP-1R6NC	1.6±30%	29±25%	2.06	1.76	2.95
CDRH38D16RHPNP-2R2NC	2.2±30%	34±25%	1.76	1.50	2.65
CDRH38D16RHPNP-3R3MC	3.3±20%	59±25%	1.46	1.22	1.95
CDRH38D16RHPNP-4R7MC	4.7±20%	82±25%	1.24	1.07	1.60
CDRH38D16RHPNP-6R8MC	6.8±20%	112±25%	1.00	0.85	1.35
CDRH38D16RHPNP-100MC	10±20%	156±20%	0.84	0.72	1.15
CDRH38D16RHPNP-150MC	15±20%	216±20%	0.66	0.56	1.00
CDRH38D16RHPNP-220MC	22±20%	371±20%	0.54	0.46	0.75
CDRH38D16RHPNP-330MC	33±20%	694±20%	0.45	0.38	0.50
CDRH38D16RHPNP-470MC	47±20%	847±20%	0.38	0.32	0.45
CDRH38D16RHPNP-680MC	68±20%	1357±20%	0.32	0.27	0.30

◆ CDRH38D16R/LD

Sumida P/N	Inductance (μH)	D.C.R. (mΩ)	Saturation Current (A) ※1		Temperature Rise Current (A) ※2
			(at 20℃)	(at 100℃)	
CDRH38D16RLDNP-R90NC	0.9±30%	18±25%	1.54	1.31	3.80
CDRH38D16RLDNP-1R6NC	1.6±30%	25±25%	1.14	0.99	3.15
CDRH38D16RLDNP-2R2NC	2.2±30%	30±25%	1.01	0.88	3.00
CDRH38D16RLDNP-3R3MC	3.3±20%	37±25%	0.81	0.70	2.60
CDRH38D16RLDNP-4R7MC	4.7±20%	55±25%	0.69	0.59	2.00
CDRH38D16RLDNP-6R8MC	6.8±20%	75±25%	0.56	0.49	1.75
CDRH38D16RLDNP-100MC	10±20%	104±20%	0.47	0.40	1.45
CDRH38D16RLDNP-150MC	15±20%	163±20%	0.36	0.32	1.13
CDRH38D16RLDNP-220MC	22±20%	248±20%	0.32	0.28	0.90
CDRH38D16RLDNP-330MC	33±20%	351±20%	0.26	0.23	0.75
CDRH38D16RLDNP-470MC	47±20%	490±20%	0.22	0.19	0.65
CDRH38D16RLDNP-680MC	68±20%	867±20%	0.18	0.15	0.45
CDRH38D16RLDNP-101MC	100±20%	1335±20%	0.15	0.12	0.35

Power Inductor
CDRH**D**R Series

◆ CDRH50D28R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH50D28RNP-1R2NC	1.2±30%	13±25%	4.80	5.40
CDRH50D28RNP-1R6NC	1.6±30%	15±25%	4.20	4.70
CDRH50D28RNP-2R2NC	2.2±30%	17±25%	3.65	4.30
CDRH50D28RNP-3R0NC	3.0±20%	25±25%	3.10	3.50
CDRH50D28RNP-4R7NC	4.7±20%	40±25%	2.50	2.70
CDRH50D28RNP-6R8NC	6.8±20%	61±25%	2.10	2.20
CDRH50D28RNP-100NC	10±20%	87±25%	1.70	1.75
CDRH50D28RNP-150NC	15±20%	140±20%	1.40	1.30
CDRH50D28RNP-220NC	22±20%	175±20%	1.15	1.16
CDRH50D28RNP-330NC	33±20%	248±20%	0.94	0.98
CDRH50D28RNP-470NC	47±20%	370±20%	0.78	0.78

◆ CDRH50D43R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH50D43RNP-2R2NC	2.2±30%	22±25%	3.60	3.80
CDRH50D43RNP-3R3NC	3.3±30%	25±25%	2.90	3.50
CDRH50D43RNP-4R7MC	4.7±20%	30±25%	2.44	3.20
CDRH50D43RNP-6R8MC	6.8±20%	37±25%	2.12	2.80
CDRH50D43RNP-100MC	10±20%	47±25%	1.75	2.40
CDRH50D43RNP-150MC	15±20%	72±25%	1.44	1.90
CDRH50D43RNP-220MC	22±20%	112±20%	1.16	1.44
CDRH50D43RNP-330MC	33±20%	160±20%	0.96	1.25
CDRH50D43RNP-470MC	47±20%	270±20%	0.78	0.91
CDRH50D43RNP-680MC	68±20%	430±20%	0.65	0.72
CDRH50D43RNP-101MC	100±20%	545±20%	0.54	0.65
CDRH50D43RNP-151MC	150±20%	775±20%	0.44	0.51
CDRH50D43RNP-221MC	220±20%	975±20%	0.36	0.49

Power Inductor
CDRH**D**R Series

◆ CDRH60D28R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH60D28RNP-2R2NC	2.2±30%	20(16)	3.50	4.85
CDRH60D28RNP-3R0NC	3.0±30%	22.5(18)	3.00	4.45
CDRH60D28RNP-3R9MC	3.9±20%	27.5(22)	2.70	4.00
CDRH60D28RNP-4R7MC	4.7±20%	30(24)	2.40	3.75
CDRH60D28RNP-6R8MC	6.8±20%	46.3(37)	2.00	2.90
CDRH60D28RNP-100MC	10±20%	72.5(58)	1.60	2.25
CDRH60D28RNP-150MC	15±20%	111(89)	1.35	1.75
CDRH60D28RNP-220MC	22±20%	132(110)	1.10	1.55
CDRH60D28RNP-330MC	33±20%	198(165)	0.93	1.27
CDRH60D28RNP-470MC	47±20%	300(250)	0.76	1.02
CDRH60D28RNP-680MC	68±20%	456(380)	0.65	0.80
CDRH60D28RNP-100MC	100±20%	654(545)	0.54	0.65
CDRH60D28RNP-150MC	150±20%	942(785)	0.44	0.54

◆ CDRH60D43R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1		Temperature Rise Current (A) ※2
			(at 20℃)	(at 105℃)	
CDRH60D43RNP-1R5NC	1.5±30%	15±25%	5.80	4.80	5.20
CDRH60D43RNP-2R2NC	2.2±30%	17±25%	4.80	4.00	4.40
CDRH60D43RNP-3R3NC	3.3±30%	22±25%	4.40	3.60	4.10
CDRH60D43RNP-4R7MC	4.7±20%	26±25%	3.50	2.80	3.80
CDRH60D43RNP-6R8MC	6.8±20%	31±25%	3.10	2.50	3.45
CDRH60D43RNP-100MC	10±20%	38±25%	2.60	2.00	2.90
CDRH60D43RNP-150MC	15±20%	78±25%	2.10	1.60	1.98
CDRH60D43RNP-220MC	22±20%	118±20%	1.80	1.30	1.55
CDRH60D43RNP-330MC	33±20%	178±20%	1.45	1.12	1.33
CDRH60D43RNP-470MC	47±20%	270±20%	1.20	0.90	1.04
CDRH60D43RNP-680MC	68±20%	325±20%	1.00	0.75	0.90
CDRH60D43RNP-101MC	100±20%	415±20%	0.85	0.66	0.82
CDRH60D43RNP-151MC	150±20%	670±20%	0.68	0.52	0.65
CDRH60D43RNP-221MC	220±20%	1030±20%	0.56	0.44	0.49
CDRH60D43RNP-331MC	330±20%	1325±20%	0.47	0.38	0.45

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◆ CDRH98D18R

Sumida P/N	Inductance (μH)	D.C.R. (mΩ) Max. (Typ.)	Saturation Current (A) ※1	Temperature Rise Current (A) ※2
CDRH98D18RNP-4R3MC	4.3±20%	38.5(31)	3.30	3.70
CDRH98D18RNP-6R8MC	6.8±20%	66(53)	2.75	2.75
CDRH98D18RNP-100MC	10±20%	81(65)	2.30	2.40
CDRH98D18RNP-150MC	15±20%	125(100)	1.85	1.85
CDRH98D18RNP-220MC	22±20%	195(156)	1.50	1.50
CDRH98D18RNP-330MC	33±20%	287(230)	1.25	1.25
CDRH98D18RNP-470MC	47±20%	410(328)	1.05	1.05

※1、Saturation Current: This indicates the value of D.C. current when the inductance decreases to 70% of its nominal value.
※2、Temperature Rise Current: The actual current when temperature of coil becomes △T=40℃.(Ta=20℃)

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For More Information

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