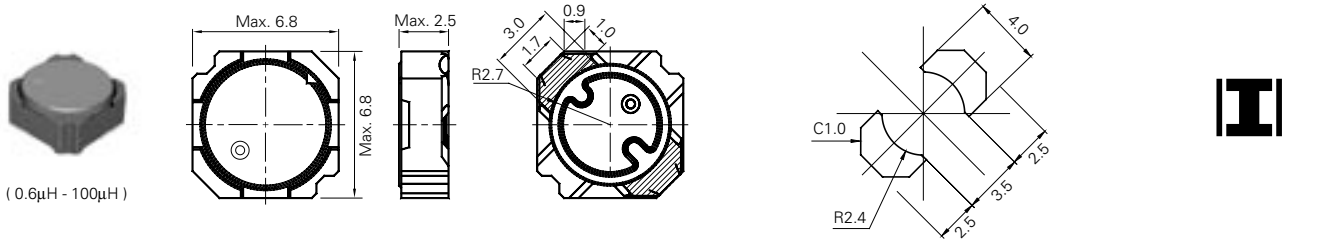


# SMD TYPE Hybrid Power Inductors

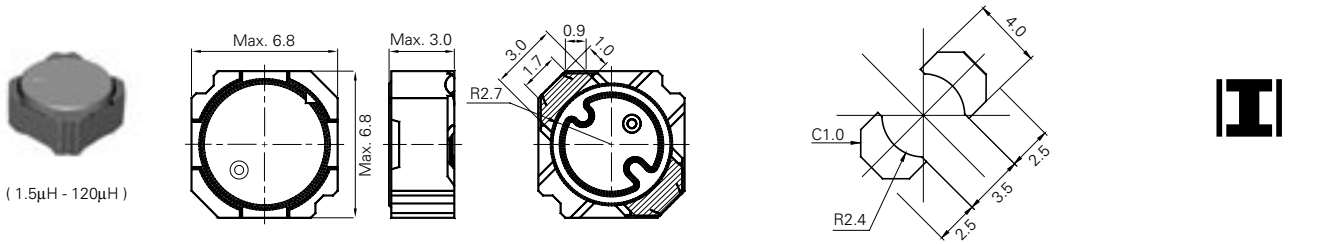
## OUTLINE

The DC superposition characteristic is extended by making manganese zinc and nickel zinc ferrite core into a hybrid compared with the previous type.

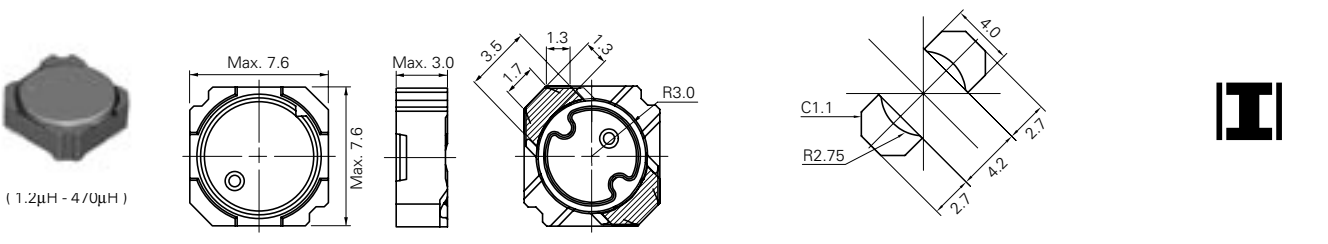
### CDR6D23MN



### CDR6D28MN



### CDR7D28MN



## TYPE : CDR6D23MN, CDR6D28MN, CDR7D28MN

Parts No.	L (H)	CDR6D23MN				CDR6D28MN				CDR7D28MN			
		D.C.R.(Ω) : Max.(Typ.)	Saturation Rated Current (A) *A		Temperature Rise Rated Current (A) *B	D.C.R.(Ω) : Max.(Typ.)	Saturation Rated Current (A) *A		Temperature Rise Rated Current (A) *B	D.C.R.(Ω) : Max.(Typ.)	Saturation Rated Current (A) *C		Temperature Rise Current (A) *C
			20 °C	105 °C			20 °C	105 °C			20 °C	105 °C	
0R6	0.6μ	20.0m(16m)	6.55	4.95	4.60								
1R0	1.0μ	25.0m(20m)	5.15	4.00	3.90								
1R2	1.2μ									20.5m(16.4m)	5.90	4.65	4.50
1R5	1.5μ	28.0m(22m)	4.40	3.55	3.30	31.5m(25m)	5.90	4.55	3.00				
2R0	2.0μ	36.3m(29m)	3.85	3.05	2.60	37.5m(30m)	4.75	3.90	2.90	23.8m(19m)	4.55	3.65	3.95
2R7	2.7μ	40.0m(32m)	3.30	2.60	2.38	43.8m(35m)	4.30	3.45	2.70	27.5m(22m)	4.10	3.30	3.70
3R3	3.3μ	46.3m(37m)	2.95	2.30	2.25								
3R6	3.6μ					50.0m(40m)	3.90	3.05	2.50	32.5m(26m)	3.55	2.90	3.45
4R2	4.2μ	52.5m(42m)	2.60	2.10	2.05								
4R5	4.5μ					57.5m(46m)	3.55	2.75	2.40				
4R6	4.6μ									37.5m(30m)	3.30	2.65	3.20
5R1	5.1μ	60.0m(48m)	2.45	1.95	1.90								
5R5	5.5μ					63.8m(51m)	3.15	2.50	2.20				
6R1	6.1μ	66.3m(53m)	2.30	1.75	1.80								
6R5	6.5μ					70.0m(56m)	3.05	2.40	2.10				
6R8	6.8μ									46.3m(37m)	2.90	2.45	2.75
7R2	7.2μ	72.5m(58m)	2.10	1.60	1.70								
7R7	7.7μ					76.3m(61m)	2.85	2.30	2.00				
8R0	8.0μ									50.0m(40m)	2.60	2.10	2.60
8R3	8.3μ	80.0m(64m)	1.95	1.50	1.50								
9R0	9.0μ					82.5m(66m)	2.60	2.10	1.90				
100	10μ	104m(83m)	1.75	1.40	1.30	88.8m(71m)	2.50	2.00	1.80	53.8m(48m)	2.40	1.95	2.50
120	12μ	118m(94m)	1.55	1.25	1.25	120m(96m)	2.30	1.75	1.50				
150	15μ	134m(107m)	1.40	1.15	1.10	135m(108m)	2.10	1.55	1.40	81.3m(65m)	2.10	1.65	2.00
180	18μ	159m(127m)	1.30	1.05	1.00	150m(121m)	1.75	1.45	1.30				
220	22μ	188m(150m)	1.20	950m	800m	199m(159m)	1.65	1.25	1.10	120m(96m)	1.65	1.35	1.60
270	27μ	255m(204m)	1.05	850m	750m	231m(185m)	1.45	1.15	980m				
330	33μ	275m(220m)	950m	750m	700m	309m(247m)	1.25	1.05	940m	196m(157m)	1.35	1.10	1.20
390	39μ	394m(315m)	900m	700m	580m	335m(268m)	1.15	950m	900m				
470	47μ	456m(365m)	800m	600m	540m	459m(367m)	1.05	900m	720m	275m(220m)	1.05	850m	1.00
560	56μ	481m(385m)	750m	580m	510m	501m(401m)	1.00	800m	680m				
680	68μ	751m(601m)	650m	530m	450m	561m(449m)	900m	750m	650m	425m(340m)	900m	700m	780m
820	82μ	804m(643m)	600m	470m	430m	838m(670m)	800m	650m	530m				
101	100μ	904m(723m)	550m	440m	410m	936m(749m)	750m	600m	500m	655m(524m)	750m	600m	650m
121	120μ					1.03(823m)	700m	550m	460m				
151	150μ									950m(760m)	600m	450m	520m
221	220μ									1.32(1.10)	500m	400m	400m
331	330μ									2.18(1.82)	350m	300m	310m
471	470μ									2.65(2.21)	300m	250m	280m

## Measuring Freq. (L)

CDR6D23MN 100kHz  
 CDR6D28MN 100kHz  
 CDR7D28MN 100kHz

## Measuring Freq. (L)

CDR6D23MN 0.6μH - 100μH ± 25% (N)  
 CDR6D28MN 1.5μH - 120μH ± 25% (N)  
 CDR7D28MN 1.2μH - 470μH ± 25% (N)

## Other

\*A Saturation Rated Current : The current when the inductance becomes 35% lower than its nominal value. (Ta=20°C)  
 \*B Temperature Rise Rated Current : The current when temperature of coil increases up to Max. ΔT=40°C. (Ta=20°C)  
 \*C Temperature Rise Current : The actual current when temperature of coil becomes ΔT=40°C. (Ta=20°C)

## About Lead-free products

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 · To order a lead-free product, please add " NP " after the product type  
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## Ordering Code

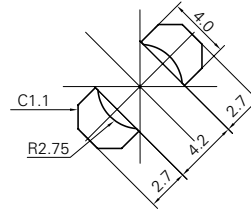
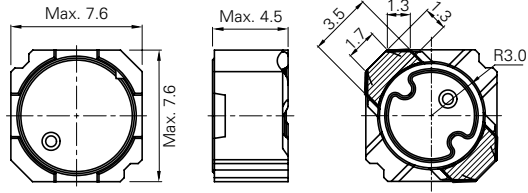
CDR6D23MN - △△△○×

△ : Parts No. ○ : Tolerance of inductance N (25%) × : Packing  
 C (Carrier tape)  
 B (Box)

### CDR7D43MN



( 3.7 $\mu$ H - 100 $\mu$ H )



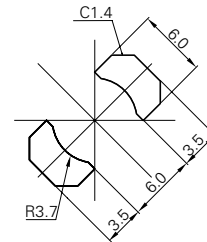
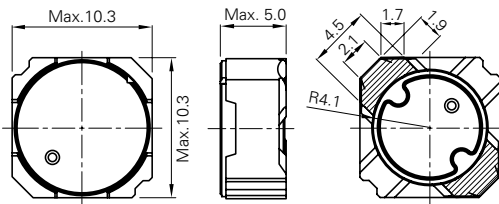
CONSTRUCTION



### CDR10D48MN



( 2.4 $\mu$ H - 120 $\mu$ H )



CONSTRUCTION



## TYPE : CDR7D43MN, CDR10D48MN

Parts No.	L (H)	CDR7D43MN				CDR10D48MN			
		D.C.R.(Ω) : Max.(Typ.)	Saturation Rated Current (A) *A		Temperature Rise Rated Current (A) *B	D.C.R.(Ω) : Max.(Typ.)	Saturation Rated Current (A) *A		Temperature Rise Rated Current (A) *B
			20℃	105℃			20℃	105℃	
2R4	2.4μ				12.5m(10.0m)	11.5	9.20	9.60	
3R6	3.6μ				15.0m(12.0m)	9.40	7.70	8.20	
3R7	3.7μ	18.9m(15.1m)	6.95	5.60	4.30				
4R7	4.7μ	21.4m(17.1m)	6.20	4.85	4.00				
5R0	5.0μ				16.9m(13.5m)	8.00	6.50	6.80	
5R8	5.8μ	24.0m(19.1m)	5.60	4.20	3.70				
6R6	6.6μ				22.5m(18.0m)	7.10	5.70	5.70	
7R2	7.2μ	33.9m(27.2m)	4.95	3.90	3.00				
8R5	8.5μ				28.8m(23.0m)	6.30	5.10	4.80	
100	10μ	48.4m(38.7m)	4.10	3.25	2.50	40.0m(32.0m)	5.50	4.40	4.30
120	12μ	56.8m(45.4m)	3.90	3.05	2.10	42.5m(34.0m)	4.90	4.10	3.60
150	15μ	80.4m(64.3m)	3.35	2.75	1.80	46.0m(37.0m)	4.50	3.60	3.40
180	18μ	93.6m(74.9m)	3.05	2.40	1.60	50.0m(40.0m)	4.10	3.40	3.20
220	22μ	106m(85.1m)	2.85	2.20	1.50	56.0m(45.0m)	4.00	3.20	2.80
270	27μ	144m(115m)	2.50	2.00	1.25	63.0m(50.0m)	3.60	2.90	2.70
330	33μ	160m(128m)	2.30	1.75	1.15	90.0m(70.0m)	3.10	2.50	2.10
390	39μ	175m(140m)	2.10	1.65	1.10	105m(85.0m)	3.00	2.40	1.90
470	47μ	247m(198m)	1.90	1.45	900m	120m(95.0m)	2.60	2.10	1.80
560	56μ	266m(213m)	1.75	1.35	850m	150m(120m)	2.40	2.00	1.60
680	68μ	364m(291m)	1.55	1.25	750m	175m(140m)	2.10	1.80	1.50
820	82μ	401m(321m)	1.45	1.15	650m	220m(175m)	2.00	1.60	1.30
101	100μ	456m(365m)	1.25	1.05	550m	275m(220m)	1.80	1.50	1.10
121	120μ					313m(250m)	1.60	1.30	1.00

## Measuring Freq. (L)

CDR7D43MN 100kHz  
CDR10D48MN 100kHz

## Tolerance of Inductance

CDR7D43MN 3.7μH - 100μH ± 25% (N)  
CDR10D48MN 2.4μH - 120μH ± 25% (N)

## Other

\*A Saturation Rated Current : The current when the inductance becomes 35% lower than its nominal value.(Ta=20°C)  
\*B Temperature Rise Rated Current : The current when temperature of coil increases up to Max.ΔT=40°C. (Ta=20°C)

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## Ordering Code

CDR10D48MN - △△△○×

△ : Parts No.   ○ : Tolerance of inductance   × : Packing  
N (25%)  
C (Carrier tape)  
B (Box)