

# MSCDRI-B SERIES

SMD Power Inductors

CUTTING-EDGE TECHNOLOGIES OF EMI/EMC SOLUTIONS

## FEATURES

- To be high saturation for surface mounting.
- Low profile.
- Low DC resistance and for large currents.

## APPLICATIONS

- Ideal for a variety of DC/DC converter inductor applications.
- Portable communication equipment.
- LCD televisions.

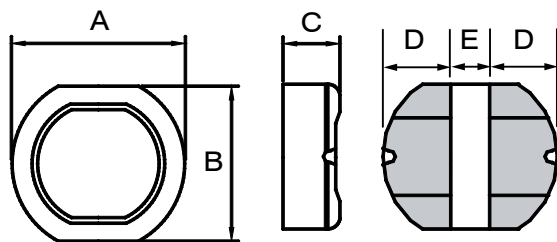
## PRODUCT IDENTIFICATION

①      ②      ③      ④      ⑤

MSCDRI - 63B - 100 M □ □

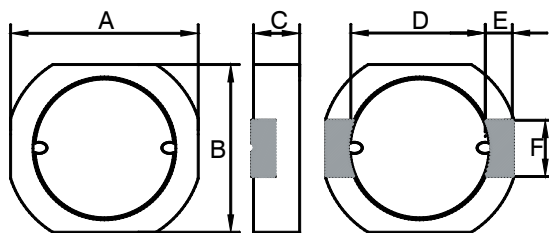
- ① Product Code
- ② Dimensions
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES



Dimension in m/m

Part No.	A ± 0.4	B ± 0.4	C ± 0.5	D	E
MSCDRI-63B	6.2	5.6	3.2	1.9	2.4
MSCDRI-74B	7.5	7.0	4.5	2.5	2.5
MSCDRI-105B	10.0	9.0	5.2	3.5	3.0



Dimension in m/m

Part No.	A ± 0.3	B ± 0.3	C (Max)	D	E	F
MSCDRI-6020B	6.3	6.0	2.0	4.8	0.6	2.2
MSCDRI-6025B	6.3	6.0	2.5	4.8	0.6	2.2
MSCDRI-6030B	6.3	6.0	3.0	4.8	0.6	2.2

SMD Power Inductors

## ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.						Permissible DC Current(A)Max.					
		63B	74B	105B	6020B	6025B	6030B	63B	74B	105B	6020B	6025B	6030B
1R0	1.0				0.016	0.015	0.015				3.50	3.43	3.59
1R5	1.5				0.021	0.020	0.018				2.94	2.83	2.93
2R0	2.0				0.028	0.024					2.47	2.44	
3R3	3.3				0.047	0.034	0.029				1.99	1.89	1.89
4R7	4.7				0.065		0.038				1.59		1.66
6R8	6.8				0.098						1.37		
8R2	8.2				0.102						1.25		
100	10	0.14	0.07	0.060	0.118	0.090	0.069	1.00	1.50	2.06	1.22	1.07	1.14
120	12	0.16	0.07	0.070	0.153	0.105	0.073	0.94	1.30	1.94	0.99	0.97	1.04
150	15	0.18	0.08	0.070	0.179	0.122	0.087	0.86	1.22	1.72	0.94	0.87	0.93
180	18	0.25	0.10	0.080	0.207	0.154	0.104	0.78	1.13	1.58	0.83	0.79	0.85
220	22	0.32	0.12	0.080	0.253	0.182	0.133	0.76	1.08	1.42	0.80	0.71	0.77
270	27	0.36	0.16	0.100	0.330	0.238	0.168	0.64	0.84	1.32	0.65	0.64	0.70
330	33	0.41	0.18	0.110	0.368	0.273	0.196	0.61	0.78	1.16	0.63	0.58	0.63
390	39	0.47	0.18	0.120	0.473	0.343	0.210	0.53	0.74	1.10	0.55	0.53	0.58
470	47	0.51	0.27	0.140	0.542	0.406	0.259	0.50	0.66	1.00	0.50	0.48	0.53
560	56	0.72	0.29	0.190		0.483	0.308	0.46	0.64	0.93		0.44	0.48
680	68	0.82	0.33	0.210		0.560	0.378	0.42	0.54	0.85		0.40	0.44
820	82		0.43	0.280		0.651	0.462		0.52	0.79		0.36	0.40
101	100		0.49	0.340		0.910	0.581		0.42	0.72		0.33	0.36
121	120		0.68	0.370		0.994	0.527		0.40	0.63		0.30	0.32
151	150		0.94	0.510		1.251	0.627		0.35	0.55		0.28	0.31
181	180		1.00	0.570		1.652	0.781		0.33	0.50		0.26	0.29
221	220		1.18	0.780		2.126	1.043		0.32	0.47		0.24	0.27
271	270		1.30	0.870		2.391	1.321		0.28	0.41		0.22	0.25
331	330			1.200		3.183	1.789			0.37		0.20	0.23
391	390			1.340		3.510	1.995			0.35		0.19	0.21
471	470			1.500		3.950	2.286			0.33		0.19	0.21

1. TEST FREQ.(L) : @100KHz/250mV
2. TOLERANCE OF INDUCTANCE: 1.0~8.2  $\mu$  H  $\pm$  30%(N) 10~4700  $\mu$  H  $\pm$  20%(M)
3. The max. permissible DC current is the DC current applied which causes 10% (30% for MSCDRI-6020B, 6025B, 6030B) reduction of its initial inductance value, or the coil temperature to rise by 40°C, whichever is lower.

## FEATURES

To be high saturation for surface mounting.  
Low DC resistance for large currents.

## APPLICATIONS

Ideal for a variety of DC/DC converter inductor applications.  
Portable communication equipment.  
Computer Peripherals  
Cable / ADSL Modems

## PRODUCT IDENTIFICATION

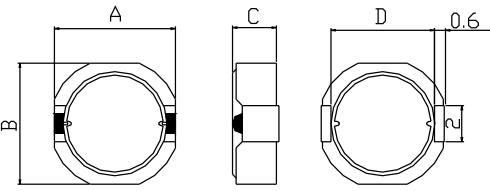
①                      ②                      ③ ④                      ⑤

MSCDRI - 6020L - 100M    □ □

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES

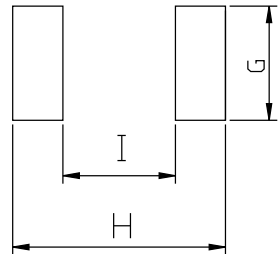
NOTES: DIMENSION IN mm



PART NO.	A	B	C	D
MSCDRI-6020L	6.3 Max.	6.2 Max.	2.0 Max.	4.8 Typ.
MSCDRI-6025L	6.3 Max.	6.2 Max.	2.5 Max.	4.8 Typ.
MSCDRI-6030L	6.3 Max.	6.2 Max.	3.0 Max.	4.8 Typ.
MSCDRI-6035L	6.3 Max.	6.2 Max.	3.5 Max.	4.8 Typ.

## LAND PATTERN

NOTES: DIMENSION IN mm



PART NO.	G	H	I
MSCDRI-6020L	2.6	6.6	4.6
MSCDRI-6025L	2.6	6.6	4.6
MSCDRI-6030L	2.6	6.6	4.6
MSCDRI-6035L	2.6	6.6	4.6

## ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.				Permissible DC Current(A)Max.			
		6020L	6025L	6030L	6035L	6020L	6025L	6030L	6035L
1R0	1.0	0.017	0.014	0.014		3.50	3.48	3.59	
1R5	1.5	0.021	0.017	0.016		2.94	2.83	2.93	
2R0	2.0	0.029	0.021		0.019	2.47	2.44		3.00
2R2	2.2			0.020				2.42	
2R7	2.7				0.022				2.69
3R3	3.3	0.047	0.029		0.026	1.99	1.89		2.57
3R6	3.6			0.026				1.89	
4R3	4.3		0.037				1.65		
4R7	4.7	0.066		0.033	0.032	1.59		1.66	2.08
6R2	6.2	0.074	0.052	0.039	0.035	1.49	1.37	1.45	1.84
8R2	8.2	0.102			0.044	1.25			1.54
100	10	0.118	0.077	0.059	0.050	1.22	1.07	1.14	1.49
120	12	0.154	0.090	0.063	0.062	0.99	0.97	1.04	1.28
150	15	0.179	0.105	0.075	0.077	0.94	0.87	0.93	1.10
180	18	0.207	0.129	0.089	0.082	0.83	0.79	0.85	1.05
220	22	0.253	0.154	0.115	0.106	0.80	0.71	0.77	0.97
270	27	0.331	0.204	0.144	0.140	0.65	0.64	0.70	0.82
330	33	0.368	0.229	0.168	0.162	0.63	0.58	0.63	0.76
390	39	0.473	0.294	0.180	0.191	0.55	0.53	0.58	0.70
470	47	0.542	0.348	0.225	0.208	0.50	0.48	0.53	0.68
560	56		0.413	0.264	0.257		0.44	0.48	0.60
680	68		0.475	0.324	0.319		0.40	0.44	0.56
820	82		0.558	0.396	0.420		0.36	0.40	0.47
101	100			0.498	0.477			0.36	0.45
151	150			0.738				0.31	

1. TEST FREQ. (L): @ 100KHz/250mV
2. TOLERANCE OF INDUCTANCE: 1.0~8.2  $\mu$  H  $\pm$  30%(N), 10~150  $\mu$  H  $\pm$  20%(N)
3. The max. permissible DC current is the DC current applied which causes 30% . reduction of its initial inductance value.

# MSCDRI-D SERIES

SMD Power Inductors

CUTTING-EDGE TECHNOLOGIES OF EMI/EMC SOLUTIONS

## FEATURES

- Available in magnetically shielded.
- Low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor applications.
- Available on tape and reel for auto surface mounting.

## APPLICATIONS

- Power supply for VTRs. OA equipment. LCD televisions.
- Portable communication equipment. DC/DC converters, etc.

## PRODUCT IDENTIFICATION

1   
 2   
 3 4   
 5  
 MSCDRI - 2D18HP - 100M    □ □

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES

Dimension in mm

Part No.	A	B	C	D	E	F
MSCDRI-2D09C	3.0±0.2	3.0±0.2	1.0 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-2D11LD	3.0±0.2	3.0±0.2	1.2 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-2D11HP	3.0±0.2	3.0±0.2	1.2 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-2D14S	3.0±0.2	3.0±0.2	1.55 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-2D18LD	3.0±0.2	3.0±0.2	2.0 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-2D18HP	3.0±0.2	3.0±0.2	2.0 <sup>+0</sup>	4.5 <sup>+0</sup>	2.1Typ.	1.0Typ.
MSCDRI-3D14LD	3.8±0.2	3.8±0.2	1.5 <sup>+0</sup>	5.2 <sup>+0</sup>	2.8Typ.	1.1Typ.
MSCDRI-3D14HP	3.8±0.2	3.8±0.2	1.5 <sup>+0</sup>	5.2 <sup>+0</sup>	2.8Typ.	1.1Typ.
MSCDRI-3D16LD	3.8±0.2	3.8±0.2	1.8 <sup>+0</sup>	5.2 <sup>+0</sup>	2.8Typ.	1.1Typ.
MSCDRI-3D16HP	3.8±0.2	3.8±0.2	1.8 <sup>+0</sup>	5.2 <sup>+0</sup>	2.8Typ.	1.1Typ.

## LAND PATTERNS

Dimension in mm

Part No.	G	H	I	J
MSCDRI-2D09C	4.3	1.7	1.3	1.3
MSCDRI-2D11LD	4.3	1.7	1.3	1.3
MSCDRI-2D11HP	4.3	1.7	1.3	1.3
MSCDRI-2D14S	4.3	1.7	1.3	1.3
MSCDRI-2D18LD	4.3	1.7	1.3	1.3
MSCDRI-2D18HP	4.3	1.7	1.3	1.3
MSCDRI-3D14LD	5.2	2.4	1.4	1.5
MSCDRI-3D14HP	5.2	2.4	1.4	1.5
MSCDRI-3D16LD	5.2	2.4	1.4	1.5
MSCDRI-3D16HP	5.2	2.4	1.4	1.5

■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.										Permissible DC Current(A)Max.									
		2D09C	2D11LD	2D11HP	2D14S	2D18LD	2D18HP	3D14LD	3D14HP	3D16LD	3D16HP	2D09C	2D11LD	2D11HP	2D14S	2D18LD	2D18HP	3D14LD	3D14HP	3D16LD	3D16HP
1R2	1.2	0.078						0.038		0.033		0.83						1.50		1.50	
1R5	1.5	0.088	0.068	0.080	0.063			0.048	0.076			0.70	0.90	1.35	1.80			1.35	1.85		
1R7	1.7						0.044				0.051					1.85					2.00
1R8	1.8				0.075									1.65							
2R0	2.0							0.055									1.15				
2R2	2.2		0.098	0.120	0.094	0.041	0.060				0.059		0.78	1.10	1.50	0.85	1.60				1.75
2R4	2.4	0.119							0.129			0.58							1.32		
2R5	2.5							0.068									1.05				
2R7	2.7				0.106									1.35							
3R0	3.0							0.077									0.95				
3R2	3.2								0.139									1.25			
3R3	3.3	0.174	0.123	0.173	0.125	0.054	0.086			0.066	0.085	0.50	0.60	0.90	1.20	0.75	1.45			0.80	1.40
3R9	3.9				0.138			0.096		0.081				1.10			0.80		0.75		
4R5	4.5							0.105									0.75				
4R7	4.7	0.238	0.17	0.238	0.169	0.078	0.140		0.214	0.091	0.116	0.38	0.50	0.75	1.00	0.63	1.20		1.04	0.68	1.20
5R6	5.6				0.188			0.159		0.102				0.95			0.70		0.62		
6R3	6.3						0.16								1.05						
6R4	6.4	0.29										0.36									
6R8	6.8		0.26	0.371	0.213	0.106		0.173	0.29	0.130	0.180		0.44	0.63	0.85	0.52		0.60	0.84	0.58	1.00
8R2	8.2	0.40			0.281					0.140		0.31		0.80						0.51	
100	10	0.50	0.40	0.559	0.294	0.18	0.245	0.220	0.44	0.190	0.230	0.30	0.35	0.52	0.70	0.43	0.85	0.50	0.67	0.46	0.84
120	12	0.55			0.394			0.270		0.205		0.27		0.62			0.45		0.42		
150	15	0.65				0.22	0.345	0.302	0.65	0.272	0.410	0.24			0.35	0.64	0.40	0.50	0.38	0.65	
180	18	0.77								0.327		0.22							0.34		
220	22	0.94		1.300	0.650	0.32		0.447	0.83	0.356	0.610	0.20		0.33	0.30	0.30		0.35	0.48	0.31	0.52
270	27	1.11								0.470		1.16								0.28	
330	33			1.520	1.00	0.46		0.848		0.560	0.870			0.25	0.24	0.24		0.30		0.26	0.41
390	39									0.700										0.24	
470	47				1.25	0.66		1.08		0.775				0.20	0.20		0.25		0.21		

1. TEST FREQ. (L):@100KHz/250mV

2. TOLERANCE OF INDUCTANCE 1.2~8.2  $\mu$  H  $\pm$  30%(N) 10~47  $\mu$  H  $\pm$  20%(M)

3. The max. permissible DC current is the DC current applied which causes 35% reduction of its initial inductance value.

# MSCDRI-D SERIES

SMD Power Inductors

CUTTING-EDGE TECHNOLOGIES OF EMI/EMC SOLUTIONS

## FEATURES

- Available in magnetically shielded.
- Low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor applications.
- Available on tape and reel for auto surface mounting.

## APPLICATIONS

- Power supply for VTRs. OA equipment. LCD televisions.
- Portable communication equipment. DC/DC converters, etc.

## PRODUCT IDENTIFICATION

①
②
③
④
⑤  
 MSCDRI - 4D18C - 100M

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES

Dimension in mm

Part No.	A	B	C	D	E	F
MSCDRI-4D18C	5.1 <sup>+0</sup>	5.1 <sup>+0</sup>	2.0 <sup>+0</sup>	4.4	6.2 <sup>+0</sup>	1.4
MSCDRI-4D28C	5.1 <sup>+0</sup>	5.1 <sup>+0</sup>	3.0 <sup>+0</sup>	4.4	6.2 <sup>+0</sup>	1.4

## LAND PATTERNS

Dimension in mm

Part No.	G	H	I
MSCDRI-4D18C	6.5	4.0	2.0
MSCDRI-4D28C	6.5	4.0	2.0

## ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.		Permissible DC Current(A)Max.	
		<b>4D18C</b>	<b>4D28C</b>	<b>4D18C</b>	<b>4D28C</b>
1R1	1.1	0.029	0.022	2.4	3.8
2R0	2.0		0.029		2.6
2R2	2.2	0.039		1.7	
2R7	2.7				
3R0	3.0	0.061		1.5	
3R2	3.2		0.042		2.3
3R3	3.3				
3R9	3.9				
4R7	4.7	0.110	0.063	1.15	1.8
5R6	5.6				
6R3	6.3		0.094		1.3
6R8	6.8	0.125		1.05	
8R2	8.2				
100	10	0.156	0.106	0.83	1.26
120	12				
150	15	0.194	0.137	0.70	1.05
180	18				
220	22	0.323	0.207	0.60	0.85
270	27				
330	33	0.550	0.331	0.46	0.70
390	39				
470	47	0.783	0.510	0.41	0.54
560	56				
680	68	1.16	0.625	0.305	0.49
820	82				
101	100	1.51	0.948	0.25	0.40

1. TEST FREQ. (L): @ 100KHz/250mV
2. TOLERANCE OF INDUCTANCE: 1.1~8.2  $\mu$  H  $\pm$  30%(N), 10~100  $\mu$  H  $\pm$  20%(M)
3. The max. permissible DC current is the DC current applied which causes 35% . reduction of its initial inductance value, or the coil temperature to rise by 40°C, whichever is lower.



# MSCDRI-D SERIES

SMD Power Inductors

CUTTING-EDGE TECHNOLOGIES OF EMI/EMC SOLUTIONS

## FEATURES

Compact and thin.  
Large permissible D.C. current and low D.C. resistance.

## APPLICATIONS

DC/DC converter  
Camcorder, LCD television set, Digital still camera, P.D.A. Notebook.  
Small size communication equipment.

## PRODUCT IDENTIFICATION

①      ②      ③ ④      ⑤  
MSCDRI - 3D16 - 100M □ □

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES

Dimension in mm

Part No.	A	B	C	D	E	F
MSCDRI-3D16	$3.8 \pm 0.2$	$3.8 \pm 0.2$	$1.6 \pm 0.3$	3.7	3.7	1.2
MSCDRI-4D18	$4.7 \pm 0.3$	$4.7 \pm 0.3$	2.0Max.	4.5	4.5	1.5
MSCDRI-4D28	$4.7 \pm 0.3$	$4.7 \pm 0.3$	3.0Max.	4.5	4.5	1.5
MSCDRI-5D18	$5.7 \pm 0.3$	$5.7 \pm 0.3$	2.0Max.	5.5	5.5	2.0
MSCDRI-5D28	$5.7 \pm 0.3$	$5.7 \pm 0.3$	3.0Max.	5.5	5.5	2.0
MSCDRI-6D28	$6.7 \pm 0.3$	$6.7 \pm 0.3$	3.0Max.	6.5	6.5	2.0
MSCDRI-6D38	$6.7 \pm 0.3$	$6.7 \pm 0.3$	4.0Max.	6.5	6.5	2.0
MSCDRI-103R	$10 \pm 0.5$	$10.1 \pm 0.5$	3.1Max.	1.2	7.7	3.0
MSCDRI-104R	$10 \pm 0.5$	$10.1 \pm 0.5$	4.1Max.	1.2	7.7	3.0
MSCDRI-105R	$10 \pm 0.5$	$10.1 \pm 0.5$	5.1Max.	1.2	7.7	3.0

## LAND PATTERNS

Dimension in mm

Part No.	G	H	I
MSCDRI-3D16	1.6	1.2	4.4
MSCDRI-4D18	1.9	1.5	5.3
MSCDRI-4D28	1.9	1.5	5.3
MSCDRI-5D18	2.15	2.0	6.3
MSCDRI-5D28	2.15	2.0	6.3
MSCDRI-6D28	2.65	2.0	7.3
MSCDRI-6D38	2.65	2.0	7.3
MSCDRI-103R	1.7	7.3	3.2
MSCDRI-104R	1.7	7.3	3.2
MSCDRI-105R	1.7	7.3	3.2

■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.										Permissible DC Current(A)Max.									
		3D16	4D18	4D28	5D18	5D28	6D28	6D38	103R	104R	105R	3D16	4D18	4D28	5D18	5D28	6D28	6D38	103R	104R	105R
1R0	1.0		0.045							0.0065		1.72								10.5	
1R2	1.2			0.0236									2.56								
1R5	1.5								0.011	0.0081	0.0058							8.00	10.0	10.5	
1R8	1.8			0.0275									2.20								
2R2	2.2	0.072	0.075	0.0313			0.020		0.0169		0.0072	1.20	1.32	2.04			3.50		6.70		9.25
2R5	2.5					0.018				0.0105						2.60				7.50	
2R6	2.6																				
2R7	2.7		0.105	0.0433								1.28	1.60								
3R0	3.0					0.024	0.024									2.40	3.00				
3R3	3.3	0.085	0.110	0.0492				0.02	0.021		0.0104	1.10	1.04	1.57				3.50	5.56		7.80
3R8	3.8									0.013										6.00	
3R9	3.9		0.155	0.0648				0.027					0.88	1.44			2.60				
4R1	4.1				0.057										1.95						
4R2	4.2					0.031										2.20					
4R7	4.7	0.105	0.162	0.0720					0.030	0.022	0.0123	0.90	0.84	1.32					4.65	5.80	6.40
5R0	5.0						0.031	0.024									2.40	2.90			
5R2	5.2									0.022										5.50	
5R3	5.3					0.038										1.90					
5R4	5.4				0.076									1.60							
5R6	5.6		0.170	0.1009								0.80	1.17								
6R0	6.0						0.035										2.25				
6R2	6.2	0.16			0.096	0.045		0.027				0.80			1.40	1.80		2.50			
6R8	6.8	0.17	0.200	0.1089					0.035	0.027	0.018	0.73	0.76	1.12					3.84	4.80	5.40
7R0	7.0									0.027										4.80	
7R3	7.3						0.054										2.10				
7R4	7.4							0.031											2.30		
8R2	8.2	0.20	0.245	0.1175		0.053			0.050	0.030	0.020	0.65	0.68	1.04		1.60			3.54	4.50	4.85
8R6	8.6						0.058	0.034									1.85	2.20			
8R9	8.9				0.116										1.25						
100	10	0.21	0.260	0.1283	0.124	0.065	0.065	0.038	0.059	0.035	0.026	0.55	0.61	1.00	1.20	1.30	1.70	2.00	3.18	4.40	4.45
120	12		0.280	0.1316	0.153	0.076	0.070	0.053		0.046	0.033		0.56	0.84	1.10	1.20	1.55	1.70		3.70	4.00
150	15	0.295	0.310	0.1490	0.196	0.103	0.084	0.057	0.091	0.050	0.041	0.45	0.50	0.76	0.97	1.10	1.40	1.60	2.60	3.60	3.60
180	18		0.338	0.1660	0.210	0.110	0.095	0.092		0.069	0.046		0.48	0.72	0.85	1.00	1.32	1.50		3.10	3.20
220	22	0.43	0.397	0.2350	0.290	0.122	0.128	0.096	0.143	0.073	0.061	0.40	0.41	0.70	0.80	0.90	1.20	1.30	2.16	2.90	2.95
270	27		0.441	0.2610	0.330	0.175	0.142	0.109	0.18	0.088	0.069		0.35	0.58	0.75	0.85	1.05	1.20	1.80	2.60	2.70
330	33	0.675	0.694	0.3313	0.386	0.189	0.165	0.124	0.202	0.093	0.084	0.32	0.32	0.56	0.65	0.75	0.97	1.10	1.74	2.30	2.40
390	39	0.820	0.709	0.3837	0.520	0.212	0.210	0.138	0.25	0.127	0.106	0.26	0.30	0.50	0.57	0.70	0.86	1.00	1.60	2.20	2.30
470	47	0.99		0.5870	0.595	0.250	0.238	0.155	0.299	0.128	0.130	0.24		0.48	0.54	0.62	0.80	0.95	1.43	2.10	2.00
560	56			0.6245	0.665	0.305	0.277	0.202	0.325	0.188	0.149			0.41	0.50	0.58	0.73	0.85	1.36	1.65	1.90
680	68	1.10		0.6990	0.840	0.355	0.304	0.234	0.429	0.213	0.201	0.22		0.35	0.43	0.52	0.65	0.75	1.22	1.50	1.65
820	82			0.9148	0.978	0.463	0.390	0.324	0.494	0.283	0.227			0.32	0.41	0.46	0.60	0.70	1.14	1.45	1.50
101	100	1.40		1.02	1.20	0.520	0.535	0.358	0.683	0.304	0.253	0.17		0.29	0.36	0.42	0.54	0.65	1.02	1.35	1.35
121	120			1.27					0.754	0.375	0.303			0.27					0.89	1.20	1.28
151	150			1.35					0.871	0.506	0.370			0.24					0.84	1.15	1.12
181	180			1.54						0.568	0.419			0.22						1.00	1.04
221	220	4.00								0.756	0.500	0.15								0.92	0.94
331	330									1.090	0.812									0.70	0.75

1. TEST FREQ. (L):@100KHz/250mV

2. TOLERANCE OF INDUCTANCE 1~8.2  $\mu$  H  $\pm$  30%(N) 10~330  $\mu$  H  $\pm$  20%(M)

3.The max. permissible DC current is the DC current applied which causes 35% reduction of its initial inductance value, or the coil temperature to rise by 40°C, whichever is lower.

SMD Power Inductors

# MSCDRI-F SERIES

WIRE WOUND TECHNOLOGIES FOR POWER SOLUTIONS

SMD Power Inductors

## FEATURES

- Low DC resistance & for large currents
- Flat bottom surface allows for reliable mounting onto the board.
- Available on tape and reel for surface mounting.

## APPLICATIONS

- Ideal for a variety of DC/DC converter inductor applications.
- Portable telephones.
- Personable computers.

## PRODUCT IDENTIFICATION

1   
 2   
 3   
 4   
 5  
 MSCDRI - 73F - 100M

- 1 Product Code
- 2 Dimensions Code
- 3 Inductance Code
- 4 Tolerance Code
- 5 Pattern Code

## PRODUCT SERIES

Dimension in mm

Part No.	A	B	C	D	E	F
MSCDRI-6025F	6.0±0.3	6.0±0.3	2.5±0.3	2.0±0.2	3.0Typ.	1.5Typ.
MSCDRI-63F	6.0±0.3	6.0±0.3	2.8±0.3	2.0±0.2	3.0Typ.	1.5Typ.
MSCDRI-7028F	7.0±0.3	7.0±0.3	2.8±0.3	2.0±0.2	4.0Typ.	1.5Typ.
MSCDRI-73F	7.0±0.3	7.0±0.3	3.2±0.3	2.0±0.2	4.0Typ.	1.5Typ.
MSCDRI-75F	7.0±0.3	7.0±0.3	4.5±0.3	2.0±0.2	4.0Typ.	1.5Typ.
MSCDRI-105F	10.0±0.3	10.0±0.3	4.5±0.3	3.0±0.2	6.0Typ.	2.0Typ.
MSCDRI-125F	12.5±0.3	12.5±0.3	5.5±0.3	3.0±0.2	8.5Typ.	2.0Typ.
MSCDRI-126F	12.5±0.3	12.5±0.3	6.5±0.35	3.0±0.2	8.5Typ.	2.0Typ.
MSCDRI-127F	12.5±0.3	12.5±0.3	7.5±0.35	3.0±0.2	8.5Typ.	2.0Typ.

## LAND PATTERNS

Dimension in mm

Part No.	G	H	I
MSCDRI-6025F	2.2	1.7	2.8
MSCDRI-63F	2.2	1.7	2.8
MSCDRI-7028F	2.2	1.7	3.8
MSCDRI-73F	2.2	1.7	3.8
MSCDRI-75F	2.2	1.7	3.8
MSCDRI-105F	3.2	2.5	5.6
MSCDRI-125F	3.2	2.5	8.6
MSCDRI-126F	3.2	2.5	8.6
MSCDRI-127F	3.2	2.5	8.6

■ PRODUCT SPECIFICATIONS

Part No.	Inductance (μH)	DC Resistance(Ω) ± 20%									Permissible DC Current(A)Max.								
		6025F	63F	7028F	73F	75F	105F	125F	126F	127F	6025F	63F	7028F	73F	75F	105F	125F	126F	127F
1R2	1.2								0.0069									13.0	
2R0	2.0							0.0117									10.00		
2R7	2.7								0.0094									10.0	
3R3	3.3			0.028	0.023	0.020	0.0161					1.60	1.90	2.50	4.90				
3R9	3.9								0.0104									9.0	
4R2	4.2							0.015									7.30		
4R7	4.7	0.0306	0.0284	0.038	0.036	0.030				1.50	1.60	1.50	1.70	2.00					
5R6	5.6	0.0405					0.022		0.0116	1.40					3.80			7.8	
6R0	6.0							0.0164								3.60			
6R8	6.8	0.0442	0.0354	0.059	0.041	0.039			0.0131	1.30	1.50	1.30	1.60	1.70				7.2	
7R0	7.0							0.0177									5.70		
100	10	0.0573	0.0532	0.083	0.053	0.036	0.0364	0.0215	0.0202	0.0156	1.00	1.30	1.10	1.40	1.30	3.00	3.40	5.00	5.5
150	15			0.11	0.075	0.052	0.0472	0.0259	0.0237	0.0184			0.88	1.10	1.10	2.40	2.80	4.20	4.7
220	22			0.18	0.11	0.061	0.0591	0.0338	0.0316	0.0263			0.75	0.96	0.90	2.10	2.30	3.50	4.0
330	33			0.24	0.16	0.096	0.0815	0.0415	0.0406	0.0395			0.65	0.75	0.82	1.60	1.90	2.80	3.2
470	47			0.34	0.24	0.125	0.10	0.0618	0.0578	0.0528			0.54	0.67	0.75	1.40	1.60	2.40	2.7
680	68				0.31	0.175	0.14	0.0832	0.0787	0.0778				0.59	0.60	1.20	1.30	2.00	2.0
101	100				0.45	0.25	0.20	0.1170	0.123	0.125				0.45	0.50	1.00	1.10	1.60	1.9
151	150				0.65	0.34	0.35	0.19		0.175				0.37	0.40	0.79	0.88		1.5
221	220				1.05	0.52	0.47	0.27	0.273	0.258				0.29	0.33	0.65	0.72	1.00	1.3
331	330				1.67	0.74	0.68	0.41						0.22	0.25	0.54	0.59		
471	470				2.05	1.05	1.03	0.52						0.20	0.22	0.47	0.49		
681	680				3.15	1.48	1.60	0.76						0.16	0.20	0.38	0.43		
102	1000				4.78	2.28	2.80	1.12						0.13	0.14	0.32	0.34		
152	1500						3.40	1.73								0.22	0.29		

1. TEST FREQ. (L):@ 100KHz/500mV
2. TOLERANCE OF INDUCTANCE: 1.2~7.0 μH ± 30%(N) 10~1500 μH ± 20%(M)
3. Rated current : value obtained when current flows and the temperature has risen to 25°C (MSCDRI-6025F,63F,7028F,73F,75F), 40°C (MSCDRI-105F,125F,126F,127F) or when DC current flows and the initial values of inductance has Flaaen by (MSCDRI-6025F, 63F 30%, MSCDRI-7028F, 73F,75F 15%, MSCDRI-105F, 125F, 126F, 127F 10%)whichever is smaller.

## FEATURES

- Low DC resistance & for large currents
- Flat bottom surface allows for reliable mounting onto the board.
- Available on tape and reel for surface mounting.

## APPLICATIONS

- Ideal for a variety of DC/DC converter inductor applications.
- Portable telephones.
- Personable computers.

## PRODUCT IDENTIFICATION

1   
 2   
 3 4   
 5  
 MSCDRI - 5020F - 100M

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ Pattern Code

## PRODUCT SERIES

NOTES: DIMENSION IN mm

Part No.	A(Max.)	B(Max.)	C(Max.)	D±0.3	E(Typ.)	F(Typ.)
MSCDRI-5020F	5.3	5.3	2.0	5.8	1.7	4.2
MSCDRI-5030F	5.3	5.3	3.0	5.8	1.7	4.2

## LAND PATTERN

NOTES: DIMENSION IN mm

Part No.	G	H	I
MSCDRI-5020F	6.0	4.0	2.0
MSCDRI-5030F	6.0	4.0	2.0

## ■ PRODUCT SPECIFICATIONS

Part No.	Inductance ( $\mu$ H)	DC Resistance( $\Omega$ )Max.		Permissible DC Current(A)Max.	
		5020F	5030F	5020F	5030F
1R1	1.1		0.020		3.87
1R2	1.2	0.044		2.15	
2R0	2.0		0.027		2.92
2R2	2.2	0.059		1.63	
3R3	3.3		0.034		2.36
3R5	3.5	0.073		1.34	
4R7	4.7	0.087	0.045	1.14	1.87
6R8	6.8	0.105	0.068	0.95	1.51
100	10	0.150	0.090	0.76	1.33
150	15	0.210	0.142	0.63	1.05
220	22	0.275	0.208	0.56	0.86
330	33	0.455	0.257	0.44	0.72
470	47	0.730	0.352	0.36	0.62
680	68	0.935	0.525	0.30	0.51
101	100	1.500	0.801	0.23	0.43

1. TEST FREQ. (L):@ 100KHz/250mV
2. TOLERANCE OF INDUCTANCE: 1.1~6.8  $\mu$  H $\pm$ 30%(N) 10~100  $\mu$  H $\pm$ 20%(M)
3. The rated current indicates the value of current when the inductance is 30% lower than its initial value at DC superposition or DC current when  $\Delta t=40^{\circ}\text{C}$ , whichever is lower.