

FEATURES

These power inductors have low DC resistance and large permissible DC current with high reliability.

These power inductors can be directly mounted with special treated electrodes.

Tape and reel packages are available for auto mounting machine.

APPLICATIONS

For the smoothing circuit of DC-DC converter, as a choke coil or chopper coil.

Suitable for use in power lines of camcorder, LCD set, OA equipment, notebook computer, PDA, and small size communication equipment.

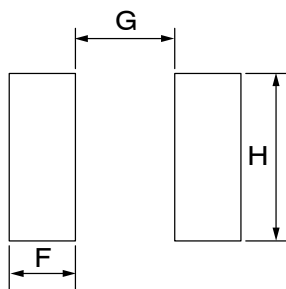
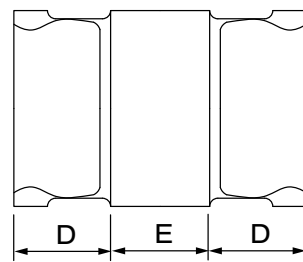
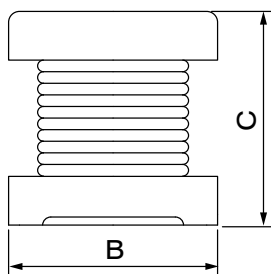
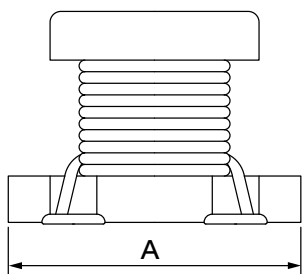
PRODUCT IDENTIFICATION

① ② ③ ④ ⑤

MSCH - 3225C - 100 K □ □

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

PRODUCT SERIES



	A	B	C	D	E	F	G	H
2015C	2.0±0.3	1.5±0.2	1.7±0.3	0.6	0.8	0.9	0.6	1.8
3216C	3.2±0.3	1.6±0.2	1.8±0.3	1.0	1.2	1.5	1.0	2.6
3225C	3.2±0.3	2.5±0.2	2.0±0.3	1.0	1.2	1.5	1.0	2.8
4532C	4.5±0.3	3.2±0.2	2.6±0.3	1.5	1.5	2.0	1.2	3.5
5750C	5.7±0.3	5.0±0.3	4.7±0.3	1.85	2.0	2.0	2.0	5.0

Dimension in mm

■ PRODUCT SPECIFICATIONS

Part No.	Inductance (μ H)	Test Frequency	DC Resistance (Ω)Max.				Self Resonant Freq. (MHz)Min.			Permissible DC Current (mA)Max.			
			2015C	3216C	3225C	4532C	3216C	3225C	4532C	2015C	3216C	3225C	4532C
R12	0.12	1MHz		0.112			250				970		
R22	0.22			0.140			250				850		
R47	0.47			0.210			180				700		
1R0	1.0		0.26	0.364	0.078	0.08	100	96	100	650	510	800	1080
1R5	1.5		0.35			0.09			85	600			1000
2R2	2.2		0.52	0.533	0.1261	0.11	50	64	60	500	430	600	900
3R3	3.3		0.65		0.16	0.13		54	47	480		500	800
4R7	4.7		0.78	0.845	0.195	0.15	31	43	35	300	340	450	750
5R6	5.6		0.84							280			
6R8	6.8		1.30		0.32	0.2		35	30	250		350	720
8R6	8.6		1.52							230			
100	10		1.62	1.69	0.39	0.24	20	26	23	200	230	300	650
150	15		2.01		0.60	0.32		22	20	150		270	570
220	22		3.77	3.90	0.923	0.6	14	19	15	100	160	250	420
330	33				1.20	1.0		17	12			220	310
470	47			10.40	1.69	1.1	10	15	10		100	170	280
680	68				3.20	1.7		11	8.4			140	220
101	100			15.60	4.55	2.2	7	10	6.8		80	100	190
151	150					3.5			5.5				130
221	220				12	4.0		6.8	4.5			70	110
331	330			14	6.8		5.6	3.6			60	100	
391	390			23			5.0				60		
471	470			26	8.5		5.0	3.0			60	90	
561	560	1KHz			30	14		5.0	2.0		60	75	

■ PRODUCT SPECIFICATIONS

Part No.	Inductance (μH)	Test Frequency	DC Resistance (Ω)Max.	Self Resonant Freq. (MHz)Typ.	Permissible DC Current (A)Max.
			5750C	5750C	5750C
R12	0.12	1MHz	0.0098	450	6.0
R27	0.27		0.0140	300	5.3
R47	0.47		0.0182	200	4.8
1R0	1.0		0.0266	150	4.0
1R5	1.5		0.0308	110	3.7
2R2	2.2		0.0406	80	3.2
3R3	3.3		0.0504	40	2.9
4R7	4.7		0.0574	30	2.7
6R8	6.8		0.1036	25	2.0
100	10		0.1302	20	1.7
150	15		0.210	17	1.4
220	22		0.266	15	1.2
330	33		0.448	12	0.9
470	47		0.560	10	0.8
680	68		0.938	7.6	0.64
101	100	100KHz	1.204	6.5	0.56
151	150		2.660	5.0	0.42
221	220		3.360	4.0	0.32
331	330		6.160	3.1	0.27
471	470		7.560	2.4	0.24
681	680	11.34	1.9	0.19	
102	1000	100KHz	14.42	1.7	0.15
222	2200		30.10	1.2	0.10
472	4700		61.04	0.8	0.07
103	10000		140.0	0.5	0.05

■ TOLERANCE OF INDUCTANCE

Tolerance	MSCH-2015C	MSCH-3216C	MSCH-3225C	MSCH-4532C	MSCH-5750C
10% (K)	10 ~ 22 μH	100 μH	10 ~ 560 μH	10 ~ 560 μH	100 ~ 1000 μH
15% (L)					
20% (M)	1.0 ~ 8.6 μH	1.0 ~ 47 μH	1.0 ~ 6.8 μH	1.0 ~ 6.8 μH	0.12 ~ 68 μH
30% (N)		0.12 ~ 0.47 μH			

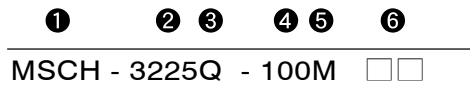
■ FEATURES

This miniature chip inductors wound on a special ferrite core.
High Q value at high frequencies and low DC resistance.
Wide inductance range.
Excellent solder heat resistance. Both flow and reflow soldering methods be employed.

■ APPLICATIONS

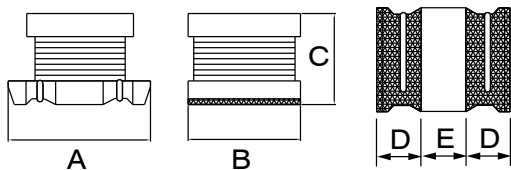
Pagers, Cordless phones.
High Freq. Communication Products.
GPS (Global Position System).
ADSL

■ PRODUCT IDENTIFICATION



- ① Product Code
- ② Dimensions Code
- ③ High Q
- ④ Inductance Code
- ⑤ Tolerance Code
- ⑥ Pattern Code

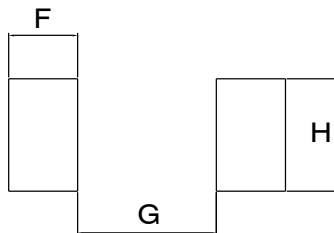
■ PRODUCT SERIES



NOTES: DIMENSION IN mm

PART NO.	A	B	C	D	E
MSCH-3225Q	3.2±0.3	2.5±0.2	2.0±0.30	1.0	1.2
MSCH-4532Q	4.5±0.3	3.2±0.2	2.6±0.30	1.5	1.5

■ LAND PATTERN



NOTES: DIMENSION IN mm

PART NO.	F	G	H
MSCH-3225Q	1.5	1.0	2.8
MSCH-4532Q	2.0	1.2	3.5

SMD Power Inductors

MSCH-Q SERIES

Wound Ferrite Chip Inductors

CUTTING-EDGE TECHNOLOGIES OF EMI/EMC SOLUTIONS

■ PRODUCT SPECIFICATIONS

Part No.	Inductance (μ H)	Test Freq.		Quality Factor				DC Resistance		Self Resonant Freq.		Rated Current	
		MHz		Min.		Test Freq.		(Max.)		(MHz) Min.		mA(Max.)	
		3225Q	4532Q	3225Q	4532Q	3225Q	4532Q	3225Q	4532Q	3225Q	4532Q	3225Q	4532Q
1R0	1.0	1	1	20	20	1	1	0.5	0.20	100	120	445	500
1R2	1.2	1	1	20	20	1	1	0.6	0.20	100	100	425	500
1R5	1.5	1	1	20	20	1	1	0.6	0.30	75	85	400	500
1R8	1.8	1	1	20	20	1	1	0.7	0.30	60	75	390	500
2R2	2.2	1	1	20	20	1	1	0.8	0.30	50	62	370	500
2R7	2.7	1	1	20	20	1	1	0.9	0.32	43	53	320	500
3R3	3.3	1	1	20	20	1	1	1.0	0.35	38	47	300	500
3R9	3.9	1	1	20	20	1	1	1.1	0.38	35	41	290	500
4R7	4.7	1	1	20	30	1	1	1.2	0.40	31	38	270	500
5R6	5.6	1	1	20	30	1	1	1.3	0.47	28	33	250	500
6R8	6.8	1	1	20	30	1	1	1.5	0.50	25	31	240	450
8R2	8.2	1	1	20	30	1	1	1.6	0.56	23	27	225	450
100	10	1	1	35	35	1	1	1.8	0.56	20	23	190	400
120	12	1	1	35	35	1	1	2.0	0.62	18	21	180	380
150	15	1	1	35	35	1	1	2.2	0.73	16	19	170	360
180	18	1	1	35	35	1	1	2.5	0.82	15	17	165	340
220	22	1	1	35	35	1	1	2.8	0.94	14	15	150	320
270	27	1	1	40	35	1	1	3.1	1.10	13	14	125	300
330	33	1	1	40	35	1	1	3.5	1.20	12	12	115	270
390	39	1	1	40	35	1	1	3.9	1.40	11	11	110	240
470	47	1	1	40	35	1	1	4.3	1.50	11	10	100	220
560	56	1	1	40	35	1	1	4.9	1.70	10	9.3	85	200
680	68	1	1	40	35	1	1	5.5	1.90	9	8.4	80	180
820	82	1	1	40	35	1	1	6.2	2.20	8.5	7.5	70	170
101	100	1	1	40	40	0.796	0.796	7.0	2.50	8	6.8	68	160
121	120	1	1	40	40	0.796	0.796	8.0	3.00	7.5	6.2	67	150
151	150	1	1	40	40	0.796	0.796	9.3	3.70	7	5.5	66	130
181	180	1	1	40	40	0.796	0.796	10.2	4.50	6	5.0	65	120
221	220	1	1	40	40	0.796	0.796	11.8	5.40	5.5	4.5	65	110
271	270	1	1	40	40	0.796	0.796	12.5	6.80	5	4.0	65	100
331	330	1	1	40	40	0.796	0.796	13.0	8.20	5	3.6	65	95
391	390	1	1	50	40	0.796	0.796	22.0	9.70	5	3.3	50	90
471	470	1KHz	1KHz	50	40	0.796	0.796	25.0	11.8	5	3.0	45	80
561	560	1KHz	1KHz	50	40	0.796	0.796	28.0	14.5	5	2.7	40	70
681	680		1KHz		40		0.796		17.0		2.5		65
821	820		1KHz		40		0.796		20.5		2.2		60
102	1000		1KHz		40		0.252		25.0		2.0		50
122	1200		1KHz		40		0.252		30.0		1.8		45
152	1500		1KHz		40		0.252		37.0		1.6		40
182	1800		1KHz		40		0.252		45.0		1.5		35
222	2200		1KHz		40		0.252		50.0		1.3		30

1.TOLERANCE OF INDUCTANCE 1.0~8.2 μ H \pm 20%(M),10~2200 μ H \pm 10%(K)

2.The max. permissible DC current is the DC current applied which causes 10% reduction of its initial inductance value, or the coil temperature to rise by 40°C, whichever is lower.

MAG.LAYERS